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Tell It Like It Is: Groupthink, Decisiveness, and Decision-Making Among U.S. Federal Subcabinet Executives
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Steven Kelman
Harvard University

Ronald Sanders
Booz Allen Hamilton

Gayatri Pandit
Booz Allen Hamilton

Sarah Taylor
Booz Allen Hamilton

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By

Steven Kelman
Harvard University

Ronald Sanders
Gayatri Pandit
Sarah Taylor
Booz Allen Hamilton

ABSTRACT

Senior government executives make many decisions, not-infrequently difficult ones. Cognitive limitations and biases preclude individuals from making fully value-maximizing choices. It has been suggested that, done properly, involving advisors or other outside information sources can compensate for individual-level limitations. However, the "groupthink" tradition has highlighted ways group-aided decision-making can fail to live up to its potential. Out of this literature has emerged a paradigm Janis calls "vigilant problem-solving." For this paper, we interviewed twenty heads of subcabinet-level organizations in the U.S. federal government, asking each questions about how they made important decisions. Ten were nominated by "good-government" experts as ones doing an outstanding job improving the organization's performance, ten chosen at random. Our research question was to see whether there were significant differences in how members of those two groups made decisions, specifically, to what extent executives in the two categories used a "vigilant" decision-making process. We found, however, that similarities between the two groups of executives overwhelmed differences: at least as best as we were able to measure it, decision-making by U.S. subcabinet executives tracks vigilant decision-making recommendations fairly closely. The similarity suggests a common style of senior-level decision-making in the U.S. federal government, which we suggest grows out of a government bureaucracy's methodical culture. We did, however, develop evidence for a difference between outstanding executives and others on another dimension of decision-making style. Outstanding executives valued decisiveness in decision-making – a "bias for action" – more than controls. Perhaps, then, what distinguishes outstanding executives from others is not vigilance but decisiveness. Contrary to the implications of the groupthink literature, the danger in government may be "paralysis by analysis" as much or more than groupthink.

Keywords: DECISION MAKING, FEDERAL EXECUTIVES, GROUPTHINK, CAREER CIVIL SERVANTS

Senior government executives make many decisions, frequently difficult ones characterized by complex and uncertain information, and/or hard tradeoffs among conflicting values or interests (George 1972; Janis 1982; Nutt 1989). Making good decisions under these circumstances is challenging. Cognitive limitations preclude individuals from fully considering all relevant information, and cognitive biases can interfere with information-gathering and analysis. Organized properly, an group of advisors can compensate for such individual limitations. However, the "groupthink" literature has highlighted ways a groups can fail to live up to their potential to help decision-makers. Out of this literature has emerged an approach to designing an group of advisors process to support a decision-maker that Janis (1989) calls "vigilant problem-solving." This refers to a process where advisors bring to a discussion diverse knowledge and opinions; and where the leader solicits dissenting views, critically examines costs and risks of the preferred choice, and is willing to revise an initial view in response to the deliberations. The aim, in the words of the Aaron Neville song, is for members of a group of advisors to "tell it like it is" to the executive decision-maker. "Vigilant" problem-solving is widely seen as the best process for making difficult decisions.[1]

For this paper, we interviewed twenty heads of subcabinet-level organizations in the U.S. federal government during the Obama administration, asking each the same questions about elements of how they made important decisions. Ten were nominated by "good-government" experts as ones who had done an outstanding job improving their organization's performance. Ten were chosen at random from a listing of all federal subcabinet-equivalent positions. Our goal was to examine the extent to which executives followed vigilant decision-making processes, and to see whether there were significant differences between the two categories in this regard.

In our interviews, we did find a few indications outstanding executives used vigilant approaches more than did controls. However, similarities between the two groups of executives overwhelmed

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[1] In this paper, we will use the term "vigilant decision-making."

differences. And, at least as best as we were able to measure it, decision-making by U.S. subcabinet executives tracks vigilant decision-making recommendations fairly closely, presenting a more-sanguine view than in the groupthink literature.[2] The similarities suggest a common style of senior-level decision-making, which we theorize grows out of a government bureaucracy's methodical, "fishbowl" culture.

We did, however, find evidence for a difference between outstanding executives and others on a dimension of decision-making style we had not originally undertaken to examine. We found that outstanding executives valued decisiveness – a "bias for action" – more than controls. We suggest, contrary to the implications of the groupthink literature, that the danger in government may be "paralysis by analysis" as much or more than groupthink. Perhaps, then, what distinguishes outstanding executives is not vigilance but decisiveness.

THE THEORY OF "VIGILANT" DECISION-MAKING[3]

The enormous literature on individual decision-making, 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 values. As critiques (including those of March and Simon or Braybrooke and Lindblom) have emphasized, it is impossible fully to realize this ideal because of data-gathering and analysis burdens, though normative literature on decision-making emphasizes the importance of systematic data-gathering and evaluation (Raiffa 2002). Literature on cognitive biases (e.g., Kahneman 2011; Bazerman and Moore 2012) has added new concerns, including overconfidence in estimates about states of the world, and confirmation bias, which suggests initial

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[2] We also found to our surprise that, when we asked respondents to discuss their "most-difficult" decision, a very large number, especially of the outstanding executives, discussed decisions that were not informationally complex – the kind envisioned in the vigilant decision-making literature -- but instead were wrenching; it wasn't so hard to decide what the right thing to do was, but instead actually to do it. We discuss these findings in a separate paper (Kelman and Myers).

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: 880; see also Lord et al. 1979).

<u>Using Advisors to Aid Leader Decision-Making</u>

If cognitive limitations and biases create problems for an individual making a decision alone, one alternative for leaders is to get advice or information from others – from a single other individual or (what is mostly discussed in the literature) from a group. These can provide multiple sources of information richer than what leaders possess themselves (Jehn et al. 1999), as well as counteracting individual biases, since different people bring different biases to the table (Kahneman 2011). Statistical principles guarantee that judgments formed by averaging several sources have lower random error than individual sources on which averages are based, a phenomenon often now called the "wisdom of crowds" (Yaniv 2004). Additionally, diverse group members can provide differing opinions for deliberation; although evidence is mixed (Lorge et al. 1958; Gigone and Hastie 1997), deliberation sometimes produces better results than simple aggregation.

However, most literature on using groups to provide pre-decisional advice to leaders emphasizes pathologies. The best known is Janis' work (1982; 1989; see also George 1974) on "groupthink" – a phenomenon where members conform and leaders stifle dissent, producing inadequate, biased information search and consideration of alternatives. What Janis (1982) calls "vigilant" problem-solving is a model for how a leader can use a group to help make good decisions – for example, by including in the group diversity of knowledge and opinion, soliciting dissenting views, being willing to consider information challenging initial assumptions, and critically examining costs and risks of the preferred choice. The enemy in such a group is too much agreement. The prescription is "more is better" – more information search, discussion, diversity, opportunities for dissent.

How does groupthink arise? One reason is that leader power encourages deference by group members – 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. Burris (2012) found in the lab that superiors tend to downgrade performance ratings of subordinates presenting (correct) information that ran counter to the leader's views. Janis (1982: 263) thus recommends that leaders "should be impartial instead of stating preferences…at the outset."

A second problem in groups is conformity pressures, one of the best-established findings in social psychology (Nemeth and Staw 1989). To counteract conformity, Janis recommends leaders force discussion to go an extra round after the group has appeared to reach consensus. Maier and Solem (1952; see also Flowers 1977) found in the lab that where only one member of the group had the right answer, 76% of groups gave the right answer where the leader encouraged all to express an opinion, but only 36% did so with inactive leaders. Stern and Sundelius (1997: 138) recommend leaders "take pains to encourage timid or lower-status members to participate."

A third problem in groups is insufficient underlying diversity in the group itself. Janis (1982: 244) presents "homogeneity of members' social background and ideology" as a structural cause of groupthink; literature on teams (e.g. Williams and O'Reilly 1998 van Knippenberg and Schippers 2007) argues the main advantage of professional or demographic diversity in a team is that it produces a wider variety of information and viewpoints. In government, an important structural source of diverse information and views for political executives can be the career civil service. As Aberbach and Rockman (2000: 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.[4]

Research Questions

There is some evidence vigilant decision-making is associated with better decisions. In a reanalysis of Janis' cases (Tetlock et al. 1992), independent analysts blind to study hypotheses read available accounts of each event. The authors found a positive relationship between good advisory processes and good decision outcomes. From among the features highlighted by Janis, the reanalysis found the strongest discriminators included the leader's willingness to accept dissent and sensitivity to other points of view. A meta-analysis (Orlitsky and Hirakowa 2001) of (mostly) lab studies of group process and decision quality found all process features theorized to be associated with good outcomes were in fact positively correlated with decision quality.

Almost all existing research, however, involves leader decision-making processes in foreign-policy crises. There is little work on the normal, non-crisis operations of federal agencies, particularly outside national security. One difference between the kinds of high-level foreign policy decisions in the groupthink literature and a broader range of executive decisions in government is that groups of advisors for the former usually consist only of political appointees, so potential diversity from careerists is absent. Foreign-policy decision-making is also more insulated from transparency demands and legal requirements such as the Administrative Procedures Act, which mandates that agencies publicly explain and justify decisions.

Our main research question in this paper, then, was to what extent decision-making processes of senior U.S. federal subcabinet executives generally correspond to the ideal of vigilant decision-making. In this regard, we wanted to test the hypothesis that outstanding

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[4] Of course, this is tendency, not necessary truth: careerists and politicals may share ideology–careerists agreeing with a Democratic Labor Department executive and with a Republican Defense Department one. Newly appointed politicals may replace existing careerists with politically more-compatible ones. We are grateful to Kelman and Myers for suggesting this point. We do find (see below, p. xx) that our political executives did replace many incumbent careerists with new careerists as direct reports.

executives use more vigilant processes than others – suggesting perhaps this is one reason they have been successful.

DATA AND METHODS

<u>The Sample</u>

For this study, we interviewed both a group of "outstanding executives" and a control group. To locate outstanding executives, we solicited nominations from experts on the U.S. federal government. We approached fellows of the National Academy of Public Administration (NAPA), a congressionally chartered honorary association for distinguished scholars and practitioners studying or working in government (N=677), and the Strategic Advisors to Government Executives (SAGE's) of the Partnership for Public Service, a group of former senior federal officials in information technology, contracting, financial management, and human resources (N=74). Second, we approached a smaller group of senior current officials with a governmentwide view ("luminaries") – Office of Management and Budget program associate directors and management directors, Government Accountability Office experts; committee staff of the Senate Governmental Affairs Committee and the House Oversight and Government Reform Committee, former members of Congress, and a journalist (N=16).

Potential nominators received a letter from us stating <u>inter alia</u>:

> 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.

After two reminders, responses were received from 38 NAPA fellows/SAGE's, providing a total of 93 nominations. After followups, all 16 luminaries replied, providing 107 nominations. We determined a nominee would become part of our outstanding executive group based on one of these criteria: 1) two or more nominations from both NAPA/SAGE group and luminaries; 2) three or more nominations from luminaries, independent of NAPA/SAGE nominations; or 3) three or more nominations from NAPA/SAGE, along with one luminary.[5] Based on these criteria, 11 executives qualified. However, one was eliminated since the person an organization of insignificant size.

To select the control group, we used the "Plum Book" (Committee on Homeland Security and Governmental Affairs 2008), and took positions with the titles Assistant Secretary, Undersecretary, Administrator, Director, and department-level (but not subcabinet) Chief Financial Officer, Chief Information Officer, and Chief Human Capital Officer.[6] We excluded positions responsible for a budget smaller than that of the smallest of any outstanding executive. (N=388)[7] We selected the control group using a random number generator. However, the ten outstanding executives included a disproportionate number of CFO's and CIO's (four in total), so we split control group selection into two drawings, one for CFO's and CIO's meeting our criteria, the other for everybody else. Four individuals selected as controls declined to participate, so four others were selected using the same procedure.

None of those in either group worked in foreign policy, the empirical locus of most earlier

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[5] Our request for nominations to NAPA Fellows/SAGE's had a very low response rate of 5%. The low response increases the risk of random noise, which if it occurs suggests the possibility of missing "genuinely" outstanding executives who happened not to get nominated. However, all outstanding executives were selected based either based on three or four luminary nominations (which required no or only one NAPA/SAGE nomination). Also, comment on an earlier draft of this paper suggested executives may have been nominated based not on being outstanding performers but on ideological support to the Obama administration. Were this true, it would vitiate the character of our "outstanding executives" as truly outstanding, and reduce the meaning of any comparisons between them and others. However, we do not believe this is a problem. We promised anonymity to our interviewees; however, looking over the list, we don't see even one who would be considered a strong Democratic activist. Indeed, the group is more characterized by a lack of ideology than by partisan zeal. Second, we note that a significant number of our "luminary" nominators – whose selections dominated the outstanding executives who were chosen -- were Republicans or non-partisan., A final source of evidence regarding nominations putatively due to Obama loyalty is to examine executives who were "recess appointments" to their positions because of Republican opposition in the Senate. As of June 2013 there were 32 of these (Congressional Research Service 2013). Ideological nominators would be expected to have a preference for executives who got into trouble because of support for controversial Obama policies. None appear among our outstanding executives, and only one of the 32 received even a single nomination.

[6] We included occupants of these three positions in the military branches due to their large operating budgets.

[7] We excluded assistant secretaries for Legislative and/or Public Affairs, and general counsels.

studies of high-level decision-making in the U.S. federal government.

The Survey

Interviews were conducted during the last year of the first and the first year of the second Obama

term. Each respondent was interviewed in person, and interviews recorded and then transcribed.

Interviews followed a standard format, with mostly open-ended questions. These were:

1) Who are the individuals inside or outside this organization on 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 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 what you should do 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 to you should going forward?
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?

In addition, we asked several closed-ended questions on decision-making style, and about the

respondent's direct reports and personal staff. We also asked some questions about relations with civil

servants and about the respondent's views of leadership competencies helpful for success as a

government executive, questions that did not relate directly to themes of this paper. However, some

responses to these questions are relevant to topics here, and will be discussed where appropriate.

Coding

The lead author developed an initial list of coding categories identified through preliminary

reading of half the interviews. Codes were embedded in families, generally corresponding to the survey

questions. (So, for example, one family was labelled "Information Source – Personally Known

Individuals," corresponding to the first question listed above, and with codes for different information

sources respondents mentioned. In addition, we created some families for respondent observations that did not directly track the survey questions. So for example we developed a family called "Decision-Making General," where one code was "mentions seeking opinion diversity anywhere in the interview in context other than when the opinion diversity question is asked."

All authors reviewed and revised these categories and definitions to reach consensus about the meaning of each code. Transcripts were coded by classifying relevant text into code categories, to allow counting the presence of various categories. Coding was performed by the lead and the most-junior authors, the latter assisted (for questions or clarifications) by the second author and a colleague, both serving as subject-matter experts. We used ATLAS.ti Version 7.1.3.

We performed a first IRR test on two transcripts. Kappa scores (k) were .44, .42, and .54 for decision-making, 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 respectively); the rule of thumb is that IRR tends to decline with 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.[8] Having concluded k scores were satisfactory, the two authors proceeded to code remaining transcripts (the senior author coded 11, the junior one 6). Some minimal code reassignment took place when the senior author was analyzing coded quotes.

Strengths and Limitations of our Data

One limitation of our data is small sample size, too small to give statistical analysis much chance. It is infeasible (without enormous resources) to get interview data for large samples of top

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[8] The junior author was instructed to lean on the side of "over-coding," since unnecessary codes could be ignored when the senior author was analyzing the data based on coding. Many of the "disagreements" involved situations where the junior author gave a code and the senior one left the quotation blank.

leaders, and they do not respond to kinds of survey instruments used for the mass public (responses that do come are from staffers). Thus, as is common in qualitative research, we sacrificed breadth for depth, with in-person interviews averaging over three hours. We would also argue that, compared to much qualitative research, our method is more disciplined. Our standard set of questions allows counting and comparison. Respondents were also chosen in a systematic way.

A second limitation is we did not observe actual decision-making 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. We sought to reduce social desirability bias by asking for examples or specific facts, rather than relying on general statements. So, for example, we didn't ask, "Do you often change your mind before making a decision" but instead asked respondents to discuss examples of situations where they did so. Also, there is also no reason to believe any desirability bias would distinguish outstanding executives from controls, so biases might affect frequency distributions but be less-likely to affect any differences between the groups.

Comments on an earlier draft of this paper asked whether some factors influencing whether an executive was chosen as "outstanding" may confound our results about decision styles. Kelman and Myers suggested executives might have been nominated because things were going well before they arrived, in which case they might "not need to consult as broadly because there are few issues or difficulties." We examined the agencies the outstanding executives led, and judged this did not describe any of the ten.

Additionally, Kelman and Myers suggested that executives "who made a highly salient decision which produced visible or impactful results" would be more likely to be nominated compared with "'outstanding performers' who made contributions that were less visible – the sort of leaders who

quietly keep complex organizations running on course, are adept at putting out fires and solving conflicts that never surface." We suspect it is true that nominees may have been particularly visible in running their organizations. We have no reason to believe leaders who are more visible differ on dimensions we discuss than outstanding ones who act less-visibly. However, a cautious interpretation would be that our results apply less to leaders just quietly keeping their agencies running.

When there are observable differences in frequency distributions between responses of the two groups, we present, despite our very small sample size, p-values for the differences (using Fisher's exact chi-squared test, two-tailed). Some of these, as we shall see, actually did attain conventional significance levels. Though some may disagree, we believe presenting these is more useful than not. There is a growing body of literature (e.g. Schwab, Abrahamson, Starbuck & Fidler 2011) criticizing drawing hard lines at p values of .05 or .1. We note that if the p-value of a difference between outstanding executives and controls is .35 – way short of conventional significance levels – this means there is about a two in three chance the difference really exists. If it is impossible to gather data of the kind we have for large samples, which we believe is the case, then the practical choice for researchers is either to present results that are more likely than not to be true, with appropriate caveats, or to refrain from drawing any conclusions at all. As a matter of research philosophy, we believe the former choice is a better one.

RESULTS

In an earlier paper using the same methodology that one of us co-authored (Kelman and Myers), we found many differences between management approaches used by those who successfully executed a strategy seeking major organizational changes compared with a control group. Here, by contrast, with a few exceptions, which we will discuss, we notice more similarities than differences in responses of outstanding executives and controls. In many ways, there seems to be a style of decision-making common to these senior U.S. federal subcabinet executives.

We present results regarding processes these executives used for decision-making (information sources/size of top management teams/techniques for soliciting dissent), as well as their actions suggesting vigilant behavior (changing decision course from original inclinations). Finally, we discuss our finding that outstanding executives valued a "bias for action" more than controls.

Processes: Information/Advice Sources for Decision-Making

Table One lists categories of information/advice sources respondents consulted.[9] The total number of categories was, in our view, quite large -- on average 5.2 different categories per executive, and very similar between the two groups. For these executives, it is not lonely at the top. They get information and advice from many kinds of sources.

Not surprisingly, the most common source cited was the executive's direct reports and personal staff.[10] Only six of 20 executives failed to cite one or both of these categories.[11] Somewhat to our surprise, however, considerably more respondents (14 versus 7) reported seeking advice from direct reports than from personal staff, which is positive from an information/opinion diversity perspective, for two reasons. These executives' direct reports are likely to be professionally diverse; some respondents specifically mentioned heads of legal, press, and congressional affairs offices, while others themselves run different bureaus dealing with substantive issues the organization faces. Each thus brings a specific perspective that is likely to be different from those of others in a group of advisors. Second, direct reports are likely to be more independent, and generally more senior, than an executive's personal staff.

Decision-making examples discussed in the groupthink literature all involve a group of advisors made up of people inside the organization, typically subordinates, sitting at meetings the executive chairs, serving as the sources of information/advice the executive uses. Furthermore, central to that

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[9] These are not the number of people mentioned (we didn't ask respondents to mention individuals by name), but rather the number of categories – thus, if a respondent talked about "direct reports," we counted this as one source whether there were two or twenty direct reports who may have been consulted.

[10] By "direct reports" we meant people who themselves run units inside the respondent's organization – e.g., to take an agency not in our sample, the Office of Food in the Food and Drug Administration. By "personal staff" (front office) we meant professionals working for the respondent, e.g., chief of staff.

[11] One of the executives was in a matrixed arrangement and did not really have direct reports, but did not mention personal staff as a source of information/advice.

literature is the image of an ongoing, stable group that has interacted with each other over a long period of time --people who "are deeply involved in a cohesive in-group" (Janis 1982: 9).

Our results show this is a very incomplete account of these executives' sources of information. Instead, the data in Table One provide evidence that these executives' information/advice sources go far beyond subordinates and even agency insiders, that they include sources accessed one-on-one rather than in a group setting, and that they vary across decisions.

If we calculate information/advice sources somewhat differently from the groupings in Table One to focus on the executive's own subordinates[12] as a source versus all others, we see subordinates comprise only 27% of sources mentioned. Looking at outside versus inside sources,[13] respondents report actually somewhat more outside than inside (for outstanding executives, 27 inside sources v. 31 outside, for controls 22 v. 24). Also, many sources cited would be accessed by executives one-on-one, not in a group context. For example, six outstanding executives and four (of nine[14]) controls mentioned consulting a hierarchical superior, usually the deputy secretary. Respondents cited a large number of categories of peer sources, both inside and outside their organization – nine for outstanding executives, ten for controls.[15] And 42% of sources respondents cite were written sources or academic experts, which would be consulted privately by the executive. To be sure, in terms of <u>time spent</u> rather than <u>raw number of sources</u> – information it was not feasible to gather -- these numbers would doubtless look different. Nonetheless, these results do show executives report many sources of information/advice other than meetings with subordinates.

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[12] We counted direct reports, personal staff, internal experts, and other subordinates .

[13] We counted peers outside the agency, external friends/advisors, Congress, White House/OMB, written sources, academics, and customers.

[14] One of the controls ran an independent agency, so did not have a hierarchical superior (other than the President).

[15] By "peers within the department" we mean people at the same level as the respondent but in a different part of the department, e.g., for a Chief Financial Officer, the assistant secretaries of department line organizations.   By "peers outside the organization inside government" we mean executives in other agencies with similar jobs, e.g., for a Chief Financial Officer other chief financial officers. By "external advisors" we mean a former occupant of a senior government position similar to theirs or an individual at an outside group (rather than the group as a whole) relevant to the organization the respondent led.. The number of outside advisors/old friends cited was lower than we expected (two outstanding executives, four controls), since we expected most executives would have such friends from before their government service – once known under the moniker "cronies" – whom they consulted. But the number of peers inside their larger department (five for outstanding executives, four for controls) was larger.

Finally, we have some evidence from another question in the interview that both groups were likely to cast a wide net consulting people inside the organization when making decisions rather than always relying on the same advisors, though this was true of outstanding executives more than controls. We asked respondents to anchor themselves on a ten-point closed-ended scale where the two poles were: (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."; and (2) "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." The mean value for both groups showed a preference for the second alternative, but the mean for outstanding executives (7.2) was somewhat higher than for controls (7.2 v.5.8, p=.28).[16]

There was only one area where there was a large differences between sources mentioned by outstanding executives versus controls. The former were notably more likely than the latter to gather information from written sources, such as the media, databases, and books (18 v. 10) and from academics (4 v. 1) (p=.03). Without further information, one may only speculate how, if at all, this difference might be related to executive success, but we note this as a possible topic for future research.

However, although part of seeking a wide range of information and opinions involves having a larger circle, large numbers do not necessarily provide diversity. It's difficult to be sure from the interviews how diverse are the approaches of those the leader consults. However, we make two observations. One is that, as noted above, direct reports are typically functionally diverse. Second, we find that careerists – who for reasons discussed earlier are very likely to provide different perspectives -- are, contrary to some fears, richly represented in these executive group of advisorss.

If politicals and careerists bring different perspectives, the smaller the role of senior career civil servants in an group of advisors, the greater the danger of groupthink. There has been

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[16] There may be reason to worry about a social desirability bias on answers to this question, but this is controlled for when we compare the two groups.

worry that growth of political appointees among an agency head's personal staff and direct

reports may be cutting off 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: 157) The Volcker

Commission expressed a worry that the large number of political appointees was distancing

political executives "from those with the most relevant experience" (Leadership for

America1989: 18). However, evidence for this proposition is mixed: data gathered by Lewis

(2008: 97-100) shows that growth of political appointees since l960 basically tracks that of the

overall federal workforce, with the number of political appointees going up dramatically between

1960 and 1980 (along with the rise in total federal civilian employment), and remaining basically

unchanged (like the federal workforce) since then. If one looks at deputy assistant secretaries,

who are the most-important direct reports to agency heads, for most administrations for the

period 1960-1992 (Light 1995: 91), most – typically 60-75% -- were politicals, suggesting a

more-or-less steady domination of politicals among these direct reports.[17]

    We sought to get more data on this question by asking respondents, first, how many direct

reports they had, as well as how many professionals on their personal staff. We then asked how many of

these were careerists. We found that, for respondents who were themselves politicals, the mean

percentage of personal staff who were careerist was 77%, of direct reports it was 78%.[18] Thus, careerists

dominate, contrary to fears politicals talk only with other politicals, and good from a diversity

perspective. We believe these data are new, though obviously representing a limited sample; we have

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[17] Light's table is difficult to interpret, and we have confirmed our interpretation through personal communication with him. Direct reports to deputy assistant secretaries are generally careerists.

[18] Two of the ten outstanding executives came to their positions from the career civil service; of the controls, five did. These numbers, along with the mean values in the next paragraph, are only for respondents who were themselves politicals. (For respondents who themselves were careerists, all subordinates were careerists.) If we look only at the subset of respondents who were running operating agencies, as opposed to heads of support agencies – where one might believe there will be more politicals because of the greater political sensitivity of the task – the numbers are similar: 81% and 72% respectively. We note there was a wide range among respondents – from 0% to 67% got personal staff, 0% to 67% for direct reports. (The same two executives had the highest percentages both of political personal staff and political direct reports.) There are no noticeable differences on this question between outstanding executives and controls.

not seen any numbers that present percentages of senior executive personal staff who are politicals, and we gathered data for all the senior executive's direct reports, not just deputy assistant secretaries.

We also asked how many direct reports were the same as those in the position when the executive started, on the view holdovers were likely to be a greater source of diversity than those executives selected themselves. For executives who were politicals, the mean percentage of "holdovers" was 39%, for executives who were themselves careerists 55%. For politicals, the percentage of "holdovers" strikes us as a bit low.

The executives appear to regard senior careerists as good sources of information. On a question where they were asked to agree or disagree (on a five-point scale) with the statement, "Senior career civil servants often raise points about the issues I am considering that I would never have thought about myself," the mean agreement for was 1.4,[19] though there is reason to be concerned about social desirability bias in responses (and to the next question as well). On another question, "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," mean agreement was also 1.4. For a third question – asking whether "senior civil servants with whom I work generally give me their unvarnished views, even they are contrary to my own" – both outstanding executives and controls agreed, but outstanding executives were noticeably less-sanguine about civil servants than controls (2.0 v. 1.2, p=.06), which is consistent with the view (especially if read in conjunction with answers to the other two questions) that outstanding executives would like to obtain more benefits from the diversity civil servants provide than they feel they are getting.

Processes: Top Management Team Size and Free Riding in Groups

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[19] All the results presented here are only for executives who were themselves politicals.

It is tempting to adopt a "more is better" attitude to the number of people in an executive's group of advisors, on the view additional people add more diversity of information and opinion.[20] However, the larger a group becomes, the greater the danger of free riding, producing less information; a meta-analysis of studies on brainstorming (Mullen and Johnson 1991) shows that, despite its popularity, in fact more ideas are generated by asking individuals privately to generate ideas than by bringing them together for brainstorming. Research (Hackman 1998) concludes the optimal size of decision groups is 5-6; smaller ones are insufficiently diverse, larger ones marred by too much free riding. We asked executives about the size of their "top management team," which we defined as "the group with whom [you] normally meet to discuss important topics and make decisions" (and asked the respondent to "distinguish this from show-and-tell regular reporting meetings that may involve a larger group"). The mean size 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, suggesting top management team size in the federal government is closer to optimal than in large private firms.[21]

Processes: Obtaining diverse opinions

There was a question in the survey about specific steps the respondent took to encourage hearing diverse opinions. But more remarkable than answers to that specific question was that a very large number of respondents (7 outstanding executives, 6 controls) offered spontaneous, unsolicited comments elsewhere in the interview regarding their efforts to ensure diverse decision inputs.

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.

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[20] Prescriptions for reducing groupthink do not suggest increasing group size per se, except for bringing outside ad hoc experts into deliberations.

[21] 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 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 ran 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.)

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 modestly larger number of techniques – 1.6 per respondent versus 1.2 for controls (p=.29). We list below techniques mentioned in order of the total number of mentions:[22]

(1) <u>Reaching out to lower-level employees for opinions</u>:

[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

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[22] 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.

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.

You certainly try to make sure that you have the diverse level of views, and I think that, while I do so strongly rely on senior staff, you try to find ways, and often it's more informal than formal, to test those views, whether it's doing a walk-around and bumping into an employee and chatting them up or whether it's an opportunity for conversation when you're out of the office.

(2) <u>Specifically encouraging people to speak up, in groups or one-on-one meetings:</u>[23]

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 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.

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[23] Two outstanding executives (no controls) specifically mentioned that sometimes this needed to be done one-on-one, separate from larger meetings.

There is a very clear value statement often repeated and proven -- in fact, in word, and in deed -- in terms of encouragement, which is, "Everybody in this room is good and has a view that's worth listening to, and it is your duty to engage. It is your duty to reveal a problem, even if it's in your shop. And it's my duty to help you and not get negative. And it's kind of your duty to argue." …We have quarterly, where I bring the executives in and we go through some strategic issues, and a big purpose of those meetings is to encourage that dialogue so that they don't look like they're getting their heads chopped off when they bring something up.

I look for the person who's likely to be the furthest away from me first. And I want to talk to that person. And then I look for someone who is typically very quiet but a good listener and catch them individually, because I want to get an introvert as well as the extrovert. And a lot of times, if you don't seek out that introverted person, you'll never hear from them.

(3) <u>One last chance to speak</u>:

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) <u>Holding own opinion until others speak</u>:

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) <u>Voting</u>:

[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) <u>Miscellaneous</u>:

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.

Behaviors: Changing Course During Decision-Making or Execution

One behavioral indicator of a leader's willingness to listen to different opinions, and to overcome confirmation bias, is how often they change their minds in response to new information or views. So we asked respondents if they could recall examples of changing course – either from their original pre-decisional inclination, and/or during execution, sometime after they had made the decision. All ten outstanding executives were able to describe at least one specific example of changing course when making a decision and during execution. (Three controls couldn't recall an example of changing course during execution, $p=.21$; one also couldn't recall an example of changing a decision.) This high number of people able to give an example is particularly noteworthy given the cultural disposition against "flip-flopping" or "waffling," an attitude that, in contrast to the vigilant decision-making tradition, devalues changing course (Allgeier 1979; Kramer 2005). Moreover, though the question was not phrased to elicit a general response, seven outstanding executives (three controls, $p=.18$) spontaneously stated that changing course was not unusual for them. For example, one outstanding executive said, "It happens not all the time, but it happens regularly, and this, to me, is a fundamental tenet of leadership is, as new information comes in, we got to be prepared to change course." Another: "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 control stated, "You have to sometimes be willing to even back up a step in order to go forward again. But if you continue to chase that decision out of just pride or belief you can get it done at any cost, it's often going to lead you to a failure."

By far the most common reason for changing course was getting new information. Eight outstanding executives (four controls) cited this as a factor before they made their initial decision, and

six outstanding executives (six controls) cited this reason to change course during execution. Three outstanding executives and two controls noted specifically the influence of quantitative data. 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."

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, they 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." Three outstanding executives (no controls) stated they changed course after concluding the initial decision was impractical.

Behaviors: "Data-Driven" Decision-Making

Finally in terms of decision-making behavior, we note that in parts of the interview not dealing with decision-making, three outstanding executives and three controls made one or more spontaneous references to their decision-making philosophy as "data-driven."[24]

> 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 I'd 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 going to be faster, better, cheaper, smarter? I don't know based on what you've given me." (outstanding executive)

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[24] 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.

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 refinements in the way that we do things. (control)

Decisiveness and a "Bias for Action"

While conducting the interviews, we noticed that several outstanding executives -- it ended up being five (no controls, p= .03) – spontaneously described, during various parts of the interview, outside any question we were asking, a preference for showing decisiveness in decision-making, what Peters and Waterman (1982) call a "bias for action." Also, in response to an open-ended question asking what respondents thought were important leadership competencies for a government executive, four outstanding executives (only one control) named decisiveness,[25] this in addition to the spontaneous comments noted above. Two of the outstanding executives who made a spontaneous comment about decisiveness also listed this as an important leadership competency, so in total seven outstanding executives (one control, p=.02), mentioned the importance of decisiveness when making decisions. We regard the quotes about a bias for action, all from outstanding executives, as quite dramatic:

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

> 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."

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[25] Almost all categories of answer to this question were very similar between the two groups; we present another difference below.

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.

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.

I [once had dinner with] the Planning Director of [a big] city, and he said, "You should start before you're done planning." You know, his argument was, "Look, you can plan and plan and plan and plan, but if you never start, you'll never finish." And so the point is, you should start, and you should continue the process of learning more information, and you can continue to change direction based on what you learned.

After starting to hear these observations, we added a new closed-ended question – which we went back and asked later -- asking respondents to anchor themselves on a ten-point scale whose poles were: (1) "I prefer to get a great deal of information before making an important decision, even at the risk of 'paralysis by analysis.'" and (2) "I prefer to be decisive in making an important decision, even at the risk of making the decision without enough information." Both outstanding executives and controls leaned towards the right side of this scale. However, outstanding executives were more inclined towards decisiveness than controls, with a mean value of 6.8 (v. 5.7 for controls, p=.19).[26]

DISCUSSION

Different from what we expected, we conclude that the decision-making style of outstanding executives may differ from others not in vigilance but in decisiveness.

Responses of both outstanding executives and controls to our questions suggest to us a reasonably high level of vigilant decision-making. Our findings have a different tone, then, from those of Janis (1982), the first part of whose book on groupthink is called "Fiascoes" and first

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[26] For political appointees only, differences are the same (7.0 vs. 5.8, p=.19), so this was not driven by a larger number of politicals among the outstanding executives. For one of the outstanding executives, short-term circumstances around the time several months after the interview we sought a response to this question influenced the respondent's answer (we cannot disclose the details while preserving the respondent's anonymity), and the numbers provided above exclude this respondent on this question. If the respondent's answer is included, the mean value above would have been 6.7 (p=.25).

chapter titled "Why So Many Miscalculations?" We found that: (1) both groups solicited advice and input from a large variety of diverse sources; (2) the most-common source of information and advice was direct reports who were, for the most part, career civil servants, an important indication executives are receiving information from people who tend to have different perspectives based on different kinds of experiences; (3) the size of the typical top management team was close to the optimum recommended in the literature on team information-gathering. (4) both groups often spontaneously mentioned the importance of hearing diverse opinions, in parts of the interview not dealing with this issue, and all could describe at least one specific technique they used to encourage diversity. (4) almost all respondents were able to cite at least one example of a situation where they had changed their minds from an original course of action.

There were also differences, all of which suggest somewhat greater use of "vigilant" practices by outstanding executives versus controls. Outstanding executives seem to: (1) consult more written sources and academic experts to gain information; (2) "bring in representatives of people in the organization with different points of view" rather than limiting to "my most-trusted staff" when making important 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 changed course); (4) cite a larger number of techniques they use to encourage dissent. We also found it interesting that outstanding executives were more likely than controls to believe civil servants did not give them their unvarnished opinions, suggesting a greater taste on their part for hearing a greater rather than lesser number of diverse views.

We theorize that the same methodical and cautious culture that tends to characterize bureaucratic organizations in general, and government bureaucracies in particular, drives a deliberative decision-making environment that has many features in common with the vigilant

decision-making. A key feature of bureaucracy, and of U.S. administrative law in particular, is that decisions must be backed up by reasons. In "Bureaucracy," Weber wrote that "in principle a system of rationally debatable 'reasons' stands behind every act of bureaucratic administration" (Gerth and Mills 1958: 220); the Administrative Procedures Act (5 U.S.C. §553) requires a "general statement of [the] basis and purpose" of rules the government promulgates, and an explanation of why arguments made during the process that were not accepted in the final decision were rejected.

Furthermore, decision-making inside government, unlike in private organizations, occurs in an environment of democracy, with its emphasis on participation, inclusion, and the jostling of conflicting ideas – all of which are consistent with a vigilant decision-making model. The "fishbowl" environment of transparency regarding decisions encourages this as well. Perhaps then it should not be surprising that, in contrast to the implication of the groupthink literature, we saw high levels of vigilant practices among both outstanding executives and controls.

If the tendency in government is towards methodical decision-making processes that have much in common with vigilant decision-making, then the danger in government may be "paralysis by analysis" (Langley 1995) as much or more than groupthink.[27] Decision avoidance is a fact of life. Notes Anderson (2003: 139): "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" (Spranca et al. 1991; Anderson 2003), the bias in favor of not deciding over deciding, which seems to occur because people become more upset about a decision (commission) that turns out badly than about a non-decision (omission) that does so. In government, this is strengthened because of the culture of bureaucracy, and because punishment for mistakes is often stronger than reward for success.

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[27] The groupthink literature does recognize vigilant decision-making may diminish decisiveness because it is "costly in taking up the precious time of already overburdened executives" (Janis 1982: 265).

If this is true, then the decisiveness of our outstanding executives emerges as a force to temper excessive delay and hesitation in decision-making that may naturally arise in government. Differences in decisiveness were some of the most-prominent we saw between the two groups, though we did not come into this research with the intention to examine this. Perhaps, then, what distinguishes outstanding executives from others is not vigilance in decision-making, which may be a general characteristic of American government culture. We theorize that an element of decision-making style differentiating outstanding executives from others is not differences in vigilance but rather in decisiveness. This also suggests the relationship between quantity of information/advice-gathering and success does not have a linear upward slope, but may take the form of an inverted U (Grant and Schwartz 2011). Up to a point, more search helps, but past there, losses from non-decisions or delay may make success less likely.

We do not wish to over-interpret the results we have presented. We have already discussed limitations due to our small sample size and our inability to observe actual decision making. Furthermore, we asked about only some of the elements of and behaviors associated with executive decision-making processes that might be related to vigilance. And the one question in our survey we designed in order to elicit significant detail about an actual decision (the question in which we asked respondents to describe and discuss their most-difficult decision) ended up, to our surprise, seldom eliciting an informationally complex decision that would have allowed us to examine more closely to what extent the executive was using a vigilant process. (As noted earlier, we discuss answers to this question in a separate paper, Kelman and Myers.) We would certainly not on the basis of these findings conclude that groupthink problems never occur in senior federal executive decision processes.

However, our results provide some evidence that decision-making by senior U.S. executives is less-marred by groupthink than often believed, and that decision-style differences between outstanding executives and others may involve decisiveness more than vigilance. Actually, our findings are not inconsistent with a study (Herek et al. 1987) of decision-making in the foreign policy domain (19 international crises), which found high-quality advisory processes were feasible; in 42% of crises, the process displayed either none or only one of the seven features of defective decision-making Janis had identified, while another 16% showed only two. Further research, we hope, can help determine whether our conclusions are too sanguine or not.

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TABLE ONE: SOURCES OF INFORMATION/ADVICE FOR IMPORTANT DECISIONS

	Outstanding executives	Controls
INDIVIDUALS INSIDE THE ORGANIZATION		
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
INDIVIDUALS OUTSIDE THE ORGANIZATION		
Peers outside organization (but inside government)	2	2
External advisors/friends	2	4
Congress	2	3
OMB/White House	2	2
WRITTEN SOURCES		
General media/daily press	4	4
Trade press	4	2

Websites/Google	4	2
Outside datasets/statistics	3	2
Books	3	0
OUTSIDE EXPERTS/ACADEMICS	4	1
ORAL SOURCES		
Constituencies/interest groups	4	4
Customers	1	2
Frontline employees	1	0
Employee union	1	0