

Policy making with behavioral insight

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Abstract

Design of governmental interventions in the recent years has been increasingly influenced by insights gained from behavioral sciences. We provide an overview of the recent report on such policy interventions designed by the Social and Behavioral Sciences Team (SBST) of the White House and executed in collaboration with other government agencies in 2016 in eight target policy areas. Among these, we focus on SBST's project on increasing efficiency in governmental organizations. We first discuss the notions that SBST has drawn on for generating its executed interventions: successful managerial traits and growth mindset. Then, we introduce the concept of error cultures that has not been used in this project. We argue that adopting a positive error culture adds value to organizations and increases efficiency by reducing defensive decision-making.

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Keywords

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Behavioral insights for better policy making at the White House

Following President Obama's executive order 13707 on September 15, 2015 to employ the findings of behavioral sciences to improve the ways in which the government "serve(s) the American People", the Social and Behavioral Science Team (SBST) was formally established to deliver this mandate. According to a White House press release¹ its work was initially envisioned to enhance public services via four channels:

1. Streamlining access to governmental programs
2. Improving the presentation of information
3. Structuring choice carefully
4. Considering a full range of incentives

Since its inception, SBST has closely followed in the footsteps of its British counterpart, the Behavioral Insight Team² (BIT, Est. 2010), employing their methodology of randomized controlled trials³ (RCT). In 2016, SBST⁴ reported on its achievements in eight specific target policy areas, with a number of projects in each area, summarized in Table 1.

As can be seen, the range of policy issues addressed by SBST is admirably extensive. Moreover, the projects aim to remove barriers facing those individuals most negatively affected by the current state of affairs. We especially praise the attention to simplicity as a value for designing effective

solutions. Next, we narrow our focus on one of the projects designed and delivered under the last target, enhancement of efficiency in the government. First we elaborate on the two elements used in this efficiency enhancement project, namely, traits of successful managers and the "growth mindset". Then we introduce the concept of good errors and discuss how a positive error culture can prevent inefficient managerial decision-making resulting from defensive actions.

Improving efficiency in governmental organizations

The last row in Table 1 lists the target policy area of "improving effectiveness and efficiency of Federal Government operations", under which two projects were designed by SBST and delivered in collaboration with other governmental agencies. We focus here on the second project (SBST 2016 Report⁵, p. 6):

Strengthening Federal managerial performance through a new professional-development tool. Improving employee morale and engagement is a priority across Government. The Performance Improvement Council, DOL, DOE, and SBST developed and evaluated a new professional development tool for Federal managers. The tool consists of an eight-module course to help managers develop eight specific traits that research shows are present in successful managers. SBST

¹ <https://www.whitehouse.gov/the-press-office/2015/09/15/fact-sheet-president-obama-signs-executive-order-white-house-announces>

² <http://www.behaviouralinsights.co.uk/>

³ http://www.ebbp.org/course-outlines/randomized_controlled_trials/

⁴ [https://sbst.gov/download/2016 SBST Annual Report.pdf](https://sbst.gov/download/2016%20SBST%20Annual%20Report.pdf)

⁵ See previous footnote.

Table 1. Projects Developed Based on Behavioral Insight for Addressing Important Policy Issues

Target Policy Area	Projects in the Target Area
Promoting retirement security	Increasing retirement security for service members through automatic enrollment, active choices, and email prompts. Encouraging myRA enrollment for workers who lack access to workplace savings plans through timely prompts at tax time. Assisting the public with making informed decisions about when to claim Social Security retirement benefits through improved information presentation.
Advancing economic opportunity	Ensuring that low-income children obtain –and retain– access to free or reduced-price school meals through expanded automatic enrollment and improvements to the application process. Expanding access to credit for family farms through targeted outreach.
Improving college access and affordability	Helping student loan borrowers manage their debt by prompting the choice of more-affordable repayment plans and promoting annual recertification among those already in plans. Encouraging borrowers in default to rehabilitate their loans by highlighting the consequences of inaction and providing borrowers with call-in times. Reducing the burden of student debt for individuals with disabilities through data matching and streamlined application processes.
Responding to climate change	Supporting consumer adoption of renewable energy sources through active choices and other decision-support tools. Improving understanding of climate change and climate patterns among non-scientists.
Supporting criminal justice reform	Empowering the re-entry population to thrive in their communities by developing a handbook that articulates concrete steps for individuals to take before and after their release. Strengthening community policing and trust between law enforcement officers and the communities they serve.
Assisting job seekers	Helping unemployed individuals return to work more quickly through changes to the way unemployment insurance benefits are administered. Facilitating the development of modern jobs and skills data platforms to effectively support labor market outcomes for workers.
Helping families get health coverage and stay healthy	Supporting health insurance plan choice through streamlined plan presentation and decision-support tools. Helping to keep families safe from the health risks when lead is found in drinking water through evidence-based communications. Minimizing the risks of foodborne illness by re-designing a food handling safety label. Addressing child- and maternal-health issues worldwide through form redesign, text-message reminders, and personalized counseling.
Improving the effectiveness and efficiency of Federal Government operations	Promoting compliant participation in refundable tax credits through timely, simplified notices. Strengthening Federal managerial performance through a new professional development tool.

also designed a “growth mindset” intervention, which emphasizes that managerial abilities are not fixed but can be learned and strengthened over time. Research demonstrates that managers with a growth mindset are more engaged and support a culture that leads to increased worker productivity. The program concluded in early September 2016 and results will be made available soon.

In what follows, we provide an overview of the work referenced in the SBST report. In the report, the referenced works are very briefly mentioned solely to provide the evidence and background upon which the tools and interventions for enhancing efficiency have been designed. Notably, this background is not elaborated on, nor is the extension from

a business-oriented corporate context to the public governmental environment explained. Hence, at least two items remain open for further inquiry. One is to follow up on the success of these projects and find empirical evidence for such cross-domain extensions. The other inquiry is rather theoretical. It concerns teasing out the criteria that allow such cross-domain extensions and requires specifying the compatible and incompatible elements of each execution environment, say corporation vs. government, as well as specification of whether each element has bearings on a cross-domain extension. That is, questions such as the following remain open: Is it valid to use results, such as effective management traits, from a corporation and implement them in a governmental institution?

Traits of successful managers

Garvin (2013) depicts the process in which the managerial structure of Google has shaped over time. It started with a simple hypothesis put to test: Managers do not matter. This hypothesis was rejected after a few months of observing the results of a “completely flat organization” in 2002, when too many inquiries on simple matters cluttered the desks of the two Google founders (Larry Page and Sergey Brin). This realization led to establishing people operations or people ops, the Google equivalent of human resources, tasked to develop a managerial figure that fits “Googleys”.

Data on managerial roles, uses, benefits, harms, etc. were extensively collected and analyzed with a specific goal in mind: extracting teachable elements of good management. In 2009, Project Oxygen was launched to deliver systematically designed communication and training of managers as a career enhancement operation, separated carefully from evaluation procedures.

Several stages preceded the implementation of this project. Teasing out desirable management traits or making explicit what managers actually do involves collecting data on their behavior in specific cases and what results from these behaviors. The first step was a skeptical one, testing whether decisions to leave Google were a result of dissatisfaction with managers. The data from exit interviews did not support this hypothesis, suggesting that management is not harmful. But is management useful? The answer was found by specifying managerial characters and functions valued by a highly technical body of employees. The main challenge was that engineers appear to hate being micro-managed and meddled with. Nor did these engineers want to deliver managerial roles (non-technical errands). To date, Project Oxygen deals with both issues simultaneously.

Brad Hall⁶ (2014) applauds the findings of Project Oxygen. In “It’s time to make leadership simple again”, he lists the eight traits of successful managers extracted from this project as follows. (Hall, 2014, p. 1)

1. Be a good coach.
2. Empower; don’t micromanage.
3. Be interested in direct reports, success, and well-being.
4. Don’t be a sissy: Be productive and results-oriented.
5. Be a good communicator and listen to your team.
6. Help your employees with career development.
7. Have a clear vision and strategy for the team.
8. Have key technical skills so you can advise the team.

Hall reflects that the findings of Project Oxygen are neither new nor specific to Google as an organization. Management, he emphasizes, is a practical skill. His advice? Throw away your leadership books because no one learns how to swim by reading about swimming. The lesson is simple, “Practice, reflect, and practice again”.

⁶<https://www.thestreet.com/story/12328981/2/googles-project-oxygen-pumps-fresh-air-into-management.html>

Growth mindset

Another academic work used by SBST for improving efficiency in governmental agencies is the concept of “growth mindset developed among others by Blackwell et al. (2007). Dweck is credited for coining the term “growth mindset” as opposed to fixed mindset. A fixed mindset corresponds to entity theory, wherein intelligence is considered as a given and fixed quality of a person. In contrast, incremental theory, which posits the malleability of intelligence, corresponds to holding a growth mindset. Blackwell et al.’s studies of children showed that they are capable of significant improvement in mathematics when prompted with a growth mindset as opposed to a fixed one. The effectiveness of such interventions has been extended to and tested in the managerial context by Heslin and VandeWalle (2008). They showed the effectiveness of an intervention that aims at replacing a fixed mindset with a growth mindset, in that managers who are prompted with a growth mindset view are better capable of evaluating their employees and providing more useful coaching and advice. Thus, such interventions can nurture the successful managerial traits listed above.

Defensive decision-making and the culture of error

Economic models that led to the financial crisis are still used by governments, private institutions, and banks. Why do they stick to known methods? One reason is because if something goes wrong, they can avoid being at fault by saying that they simply followed the procedure. This is not the case when one follows an inclination that is not aligned with known and established defensible procedures. Avoiding a perceivably better decision for fear of being held responsible if things do not work out constitutes defensive decision-making.

Every manager who dares to propose or follow an out-of-the-box project or solution has stepped out of the realm of defensive decision-making. This is inevitably coupled with the chance of failure and liability. A defensive decision maker, on the other hand, eliminates potential benefits by categorically avoiding the possibility of failure caused by non-trivial errors. Hence, defensive decision-making destroys value. The solution is to implement a positive error culture.

All decisions, including managerial ones, are made inside an environment shaped by elements such as culture and are constrained by the perceptions of decision makers about the eventualities, which are often not perfectly knowable. (Thaler and Balz 2013) discuss those features of the environment that can be deliberately designed by a “choice architect” towards nudging people. Whereas choice architecture and nudging play a central role in the design of policy interventions influenced by behavioral insights, the same problems can be viewed through an alternative lens focusing on the characteristics of decisions made routinely by humans under certain conditions. When humans make decisions with less than perfect knowledge and ability they are necessarily frugal in collecting information. And when they are faced with the real-

ity of time limitations they must be fast in reaching a decision. Exploring the success criteria for such decisions comprises the core of the study of fast-and-frugal heuristics, which evolves around the interplay between the structure of the environment and mind as a toolbox (Gigerenzer and Gaissmaier 2011). Within this framework, Gigerenzer (2014) argues that defensive decision-making is a result of negative error culture in an organization. In a negative error culture, errors are heavily penalized and liability issues often lead to inferior choices, as explained next.

Here is a simple definition: A good decision is one that creates value. By extension, a bad decision is one that destroys value, that is, leaves us in a measurably disadvantageous state compared to where we started from. Defensive decision-making results from a culture that punishes errors and ignores their positive value of learning. A negative error culture leads to at least two value-destroying behaviors. First, the incentive structures inside the organization entice decision makers to be defensive and avoid courageous, innovative choices for fear of accountability. Second, lack of incentives for transparency and reporting of errors minimizes the possibility of learning from these errors and thereby reduces safety. The culture of error determines whether errors become learning tools for future avoidance of mistakes or are suppressed and continue to harm. The following comparison clarifies how safety can be compromised as a result.

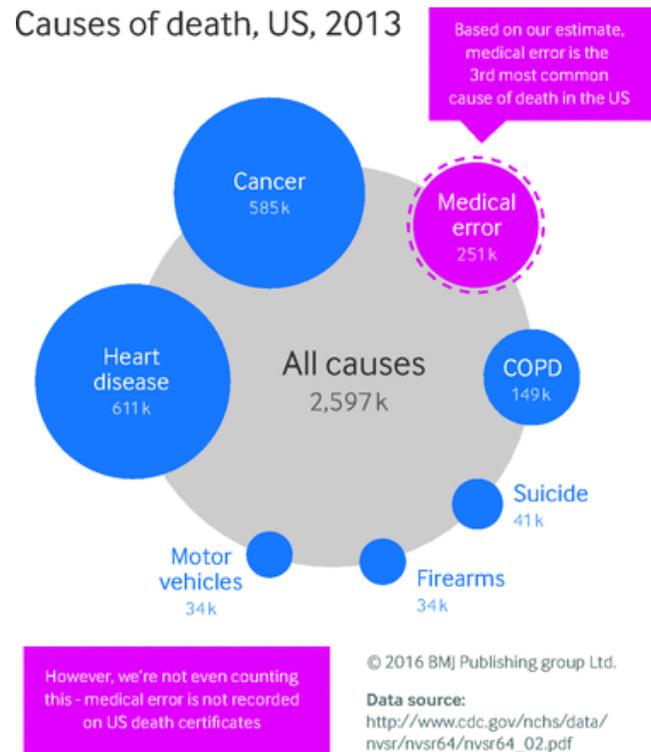
Negative error culture costs lives

Two organizations, airlines and hospitals, show considerable difference in their error culture and as a result in their generation and use of tools such as checklists that improve operational efficiency. Checklists are inexpensive, easy-to-follow tools for reducing errors and increasing safety. They are routinely used in airplanes but less regularly in hospitals. Let us compare the recording, reporting, and impact of errors in airlines versus healthcare institutions. First, flight crashes make the headlines, leaving no room for secrecy, whereas medical errors, being mostly individual, attract much less public attention and thus can be portrayed as isolated incidents. Second, the hierarchical structure of a hospital is not accommodating to errors; doctors do not usually welcome reminders from nurses to implement checklists. The opposite is the case for airlines, where sharing information among members across all ranks is routine. Finally, errors differ in their impact on members of these organizations: When a plane crashes, the pilot and crew die along with the passengers, whereas medical errors kill patients, not the doctor and hospital staff.

The total number of fatalities from all airplane crashes (Mahapatra⁷, 2014), less than 1000 per year since 2010, stands in stark contrast to the tens of thousands of patients' deaths in American hospitals caused by mainly preventable mistakes. A recent article in BMJ (Makary and Daniel 2016), one of the oldest leading medical journals, highlights the CDC report

on medical errors as “the third leading cause of death in the US” and reflects on the fact that these are not even recorded as a cause of death on death certificates. To put the matter in perspective, see Figure 1.

Figure 1. Medical errors rank third among causes of death. The increasing number of deaths caused by medical errors results from a negative error culture and defensive medical decision-making in the health system.



Checklists provide cost-effective error-reducing measures with no new expenditure on new hires or new technology. An astonishing example is the use of checklists in ICUs for placing catheters, which reduced the amount of infections from about 1 out of 10 patients to practically zero. The disheartening truth, however, is that this amazing result did not stimulate application of such checklists across all hospitals. This lack of enthusiasm is especially disheartening in face of the fact that new drugs, which impose costs and carry many risks of side effects, are readily and widely adopted in hospitals.

Lack of incentive for reporting and recording fatal and serious medical errors in U.S. hospitals, where patients are often viewed first and foremost as potential plaintiffs, is a manifestation of defensive medical decision-making. Similarly, defensive managerial decision-making results in inferior choices that destroy potential value in an organization in favor of saving the managers from being accountable for errors in the aftermath of failing proposals. The problem is paramount, “Fear of litigation and accountability has developed defensive decision making into an art. It’s the modern art of self-defense at the cost of the company, the taxpayer, or

⁷<http://www.ibtimes.com/how-many-planes-crash-every-year-how-many-people-die-plane-crashes-chart-1560554>

the patient”. (Gigerenzer (2014), p. 55.)

Parallels can be made to the way in which government organizations simply carry on with old inefficient ways, develop elaborate and expensive programs for change, and ignore simple no-extra-resource methods such as checklists. The generating mechanism for these simple improvements is to be sought in a missing positive error culture. One way to induce such a culture in governmental organizations is to put lower and middle level decision makers at ease by placing the responsibility at the highest level. A relevant administrative example is President Truman’s slogan: “The buck stops here”.

Finally, in addition to encouraging innovative thinking, a positive error culture adds value to the organization through early detection of the sources of loss and failure, which increases safety. As such, a positive error culture clearly enhances efficiency beyond trainings based on trait tracking or mindset reinforcement.

Summary

We reviewed SBST’s 2016 methods for enhancing the efficiency of managers in governmental organizations based on the use of popular behavioral insights applied to policy making. These consisted of two methods, one aimed at triggering and reinforcing “success traits” and the other on promoting a “growth mindset”. A brief review of referenced literature presented the eight traits culled from Google’s Project Oxygen and the result of interventions based on the growth mindset approach to managerial evaluation of employees.

We elaborated on a main challenge at Google, namely the inclination of typical engineers to oppose managerial directives, as these are perceived to disrupt creativity. This attitude of looking down at managerial tasks hinders desire for taking up managerial roles as well as for following top-down orders. Interestingly, however, it turned out that this attitude applies to the technical aspect of engineers’ jobs only, whereas instructions are warmly welcomed when it comes to career development. As a result of this observation, Project Oxygen has been implemented as a career development activity rather than an evaluative measure. It has proven successful both in training managers and in increasing general employee satisfaction. The gist of these traits is genuine interest in subordinates’ short- and long-term wellbeing.

We then turned to literature and research that has not yet been adopted in the popular behavioral insight approach. The complementary approach we introduce seeks to exploit the relationships between the way in which managers deal with their problems and the structure of the environment in which they take action. Here, the organizational error culture surfaces as an important determinant of how effectively managers address the problem at hand. We argued that a positive error culture that promotes transparency and encourages sharing and discussing mistakes would not only lead to more learning and more creative solutions but also enhance the safety of organizational operations.

These three concepts are succinctly juxtaposed in Table 2.

Table 2. Three concepts applicable to efficiency enhancement in governmental (and other) organizations. Success traits and growth mindset are used in an SBST project (2016 report). Positive error culture is introduced in this article as a useful addition.

Success traits

(Garvin 2013)

Studies at Google, initially highly skeptical of the value of management, showed that managers matter.

Through vigorous data collection and analysis, winning traits of managers were specified, then used to train Google managers. (Project Oxygen)

A winning trait refers to a function well delivered by a manager for the employee that is desired and valued by that employee and therefore enhances efficiency and productivity of subordinates.

Growth mindset

(Blackwell, Trzesniewski, and Dweck 2007, Heslin and VandeWalle 2008)

Blackwell et al. demonstrated that abilities are not fixed but malleable. Growth can result from purposeful learning as well as refinement of skills over time.

Heslin and VandeWalle studied the role of managers’ assumptions about their subordinates. They provided evidence for increased productivity as a result of managerial growth mindset. Based on these two studies, SBST designed and delivered a growth mindset intervention for Federal managers.

Positive error culture

(Gigerenzer 2014)

In positive error cultures, those who make the errors report them and their errors are openly discussed to draw lessons for avoiding similar mistakes in the future. A side benefit of this approach is increased safety. That is, by routinely and openly sharing and discussing errors, one does not wait for an irreversible disaster to reveal shortcomings.

The main benefit of this culture is reduction of defensive decision-making, a behavior that destroys value.

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References

- Blackwell, L. S., K. H. Trzesniewski, and C. S. Dweck (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development* 78(1), 246–263.

- Garvin, D. A. (2013). How Google sold its engineers on management. *Harvard Business Review* 91(12), 74–82.
- Gigerenzer, G. (2014). *Risk savvy: How to make good decisions*. New York: Viking.
- Gigerenzer, G. and W. Gaissmaier (2011). Heuristic decision making. *Annual Review of Psychology* 62, 451–482.
- Heslin, P. A. and D. VandeWalle (2008). Managers' implicit assumptions about personnel. *Current Directions in Psychological Science* 17(3), 219–223.
- Makary, M. A. and M. Daniel (2016). Medical error – the third leading cause of death in the US. *British Medical Journal* 353. Doi: [10.1136/bmj.i2139](https://doi.org/10.1136/bmj.i2139).
- Thaler, Richard H., C. R. S. and J. P. Balz (2013). Choice architecture. In E. Shafir (Ed.), *The behavioral foundations of public policy*, Chapter 25, pp. 428–439. Princeton, NJ: Princeton University Press.