



## CHAPTER 3.1:

# Confronting Complexity

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### **Introduction: Leading in a co-produced government**

In my view, being able to manage complexity is one of the critical leadership qualities of the 21<sup>st</sup> century. It is an idea that is simple in concept but difficult in application as situations become complex and begin to challenge existing rules, regulations, standard operating procedures, authorities, and legal limits on the use of government funds.

For example, traditional inherently governmental functions—the determination and delivery of a benefit or the provision of services from fighting forest fires to fishery conservation—are being co-produced by the private and non-profit sectors. These sectors are challenging government roles in deploying and operating space-based technologies, acquiring and analyzing large amounts of data, and providing healthcare for veterans. In recent years, we have seen large, complex programs or crises where the government does not solely own the means of production to fix the problem.

These situations are triggering a demand to rethink the role of government and government oversight. Two specific examples include the capping of the Macondo well following the loss of the Deepwater Horizon drilling rig and cyber threats to the structure and operation of the Internet and connected networks. In fact, we are living in an interconnected world that is challenging every aspect of Federal government operation and every department and agency. Despite connectivity, departments, for the most part, continue to operate under separate chains of command with separate authorities and responsibilities.

No part of government is immune from an unexpected problem beyond its ability to immediately solve, as we recently learned in the compromise of security background investigation data at OPM and intrusions into sensitive military networks. These challenges are juxtaposed against an increasingly demanding public that has greater access to technology and information and can exercise its revocable “public license to operate” for any leader or

organization. This is a hard lesson learned from the delivery of medical care for veterans to local policing practices.

### **Confronting complexity**

The call to government leadership in our time (or any time for that matter) is the ability to develop, evolve, and deploy new competencies and capabilities to address the challenges of a rapidly changing external environment. It is the opportunity of our time. We need to seize it.

At the heart of this challenge are two concepts that we must grasp, redefine in the context of our time, and employ to improve the operation of government. These concepts are (1) the need to confront complexity as both a risk aggravator and an opportunity and (2) to recognize that any significant government performance or outcome is necessarily co-produced by multiple actors from inside and outside government.

Leaders—whether political or career—who will be effective in deploying these concepts must be capable of challenging existing assumptions regarding organizational structure, governing frameworks, and presumed constraints associated with titles, roles, and position descriptions that inhibit innovation. They must lead across boundaries. They must reject the notion that inevitable “wicked problems” and “black swans” are too hard to tackle. They must accept the challenge to create the art of the possible where none appears to exist. Finally, they must accept that technology has now enabled the public to participate in virtually any aspect of government operations through Internet access, social media, and mobile devices.

From on-scene phone cameras to private drones, any major public undertaking is in public view, and privacy and civil liberties are constant considerations. This sociological equivalent of climate change has fundamentally altered the conditions and social contract under which the public license to operate is issued and overseen.

Complexity is not a new or novel concept, but it is taking on new meaning in a world of accelerating technological change, market globalization, and climate change. While these factors have been present throughout history, it is the speed of change and the conflation of effects that challenge our generation. *New York Times* columnist Tom Friedman addressed globalization in his 2005 book, *The World Is Flat: A Brief History of the 21<sup>st</sup> Century*.

Ten years later, in an address at the Coast Guard Academy, Mr. Friedman described this complex, conflated world as “fast.” We need to also understand that there is a distinction between what is complex and what is complicated. While the terms appear to be synonymous, there is a difference between a problem that is complicated and one that is complex, a distinction made by Glen Woodbury, Director of the Center for Homeland Defense and Security at the Naval Post Graduate School. Treating patients for viral diseases can be

complicated. Managing the source, transmission, and consequences of a global health threat like the Ebola virus is complex.

Complexity becomes a risk aggravator when its effects cannot be managed within existing policies, procedures, doctrine, legal authorities, or contractual relationships. This in turn becomes a leadership challenge because multiple entities must generally co-produce the needed outcomes. We will not see a complex problem in our lifetime where the needed outcome will not be co-produced. Government is constrained by authorizing legislation, limits on the use of appropriated funds, and ponderous acquisition regulations that are the sum of all real or perceived market failures. The private sector may have no legal authority to act autonomously outside government contract provisions and can be limited in activities beyond traditional corporate responsibility and philanthropic efforts. Similarly, not-for-profit organizations are constrained by both resources and mission scope.

### **Maritime operations and counterterrorism: A case study**

In 1976, President Jimmy Carter signed Presidential Directive 1 (PD 1), *Establishment of Presidential Review and Directive Series/NSC*. PDs replaced the National Security Decision Memoranda (NSDM) used by Presidents Nixon and Ford. Among the PDs signed in the following year was PD 27, *Procedures for Dealing with Non-Military Incidents*, to ensure “that the government’s decisions are reached expeditiously and the views of all concerned departments and agencies, as well as considerations of both domestic law and foreign policy, are brought together in reaching a decision...” This PD guided the U.S. response to maritime incidents that could adversely affect our foreign affairs and became the underpinning for the Coast Guard’s close coordination with the U.S. Department of State and U.S. Department of Justice for nearly four decades of U.S. maritime operations against maritime drug interdiction, illegal fishing, and human trafficking.

Specific guidance related to post-9/11 maritime operations was issued by President George W. Bush in National Security Presidential Directive 41 (Homeland Security Presidential Directive 13) in 2004. Included was the requirement for the National Strategy for Maritime Security and associated supporting plans. One of those plans, Maritime Operational Threat Response (MOTR), signed in 2006, ambitiously expanded interagency coordination by bringing together additional departments, including the U.S. Department of Defense (DOD), and was set up to be used against all maritime threats (e.g., maritime terrorism). The MOTR Plan represents lessons learned from nearly four decades of interagency coordination of a whole-of-government response to countless maritime events under the original PD 27 direction.

Following the highly successful interagency coordination that underpinned the U.S. response to the capture of the MAERSK ALABAMA by Somali pirates in April 2009, the Global MOTR Coordination Center was established

at Coast Guard Headquarters in February 2010. The Center is now recognized by Washington, DC, agencies as the Executive Secretariat for the MOTR Plan. Born out of an operational and political mistake at sea, MOTR epitomizes the quiet evolution of good government by committed public servants who subordinate organizational parochial interests to co-produce the right outcomes for the nation.

Throughout the course of my career I have had the opportunity to address complex problems of an increasing scale. The MOTR journey has been my personal exemplar to mature my tradecraft as a senior government leader. I offer my personal thanks to Scott Genovese, Director of the Global MOTR Coordination Center, for his help in presenting this gold standard of inter-agency co-production of outcomes.

### **Lessons learned from Hurricane Katrina**

I recently went back to the Gulf Coast for the 10<sup>th</sup> anniversary of Hurricanes Katrina and Rita. I didn't rush the trip and took several days to retrace my steps and visit the areas that were most affected. The trip included a round-table discussion with President Obama, Federal Emergency Management Agency (FEMA) Administrator Craig Fugate, and others on how New Orleans had recovered thus far. I believe the general consensus was that much has been done but much remains to be done.

Ten years earlier, on Labor Day, September 5, I received a call from DHS Secretary Michael Chertoff. He asked me to go to New Orleans and assist FEMA Administrator Michael Brown to improve the Federal response. The previous week had been wrenching for the city and trying for FEMA, with well-publicized incidents at the Super Dome and Convention Center and the media framing the response as inadequate, poorly organized, and unresponsive to local needs. As I flew to Baton Rouge and on to New Orleans on September 6, 2005, I was perplexed at how the situation had become so problematic. The answer was revealed as I flew into a makeshift landing zone near the Convention Center. Eight days after the storm's landfall, New Orleans remained flooded. Repairs to the levees and drainage canal walls had to be completed to pump water out of the city, and most of the city was without electricity, sewage, and potable water.

The response in New Orleans had been narrowly framed as a response to the hurricane and associated flooding from levee and drainage canal failures. In actuality, something far more complex had occurred. Rather, I believe that what happened in New Orleans was the equivalent of a weapon of mass destruction used on the city without criminal intent that resulted in a loss of continuity of government.

The implications of not understanding this complexity resulted in resources being poured into the city for a week, yet not under the control of local

authorities that had legal responsibility for the response. In the absence of a coherent, unified command structure, which existed in Mississippi, external resources were self-deployed and reporting back to their respective chains of command rather than a central coordinating structure. There was an overriding need at the outset to understand the scale of the event, suspend assumptions regarding how we deal with a natural disaster, and delve deeper into the real problems that needed to be addressed.

The response was ultimately stabilized when we were able to re-establish the elements needed for civil authorities to meet their responsibilities. We did that by providing access, logistics, security, administrative support, and communications that allowed local law enforcement officials to go house to house and account for every dwelling and remaining survivors, as well as the difficult task of recovering remains. This task required a unified Federal effort in support of—not in lieu of—local authorities. We were able to organize and lead inter-reliant organizations focused on a common goal: “reach every structure, save who still needed to be saved or evacuated, and begin the difficult process of the recovery of remains with dignity.”<sup>69</sup>

While these operations were conducted, private sector contractors under the direction of the Federal government repaired levees and removed debris to allow access to every part of the city. Mobilization of the industrial base in disaster response is a critical component of Federal efforts. In the end, we created a structure that unified the efforts of diverse entities and co-produced the needed outcomes for the city. I believe that had the enormously complex nature of the problem in New Orleans been fully understood by those responsible for the response on August 29<sup>th</sup> and 30<sup>th</sup>, we might have seen different outcomes in that first week.

### **Lessons learned from Deepwater Horizon**

The complexity I encountered as the National Incident Commander for the response to the Deepwater Horizon oil rig explosion and subsequent oil spill was far different from Hurricane Katrina. While Katrina was devastating, the physical impacts were bounded: from Southwest Alabama to South Central Louisiana and inland. The central political issue in Katrina revolved around the respective roles of Federal, state, and local government entities and creating unity of effort to co-produce outcomes.

The response to the well blowout was more physically and politically complex. I wrote in 2014:

*While there was clear Federal jurisdiction over the event and the location (state jurisdiction ends at three nautical miles), five states were simultaneously threatened by an uncontrolled discharge from a well with no human*

<sup>69</sup> Sanders, R. P., & Nickerson, J. (2014). *Tackling wicked government problems: A practical guide for developing enterprise leaders*. Washington, DC: Brookings Institution Press.

*access, for an indefinite period of time, under varying wind, sea, and tidal conditions, and with no precedent for controlling the well, other than drilling a relief well.*<sup>70</sup>

In addition, state and local leaders demanded a greater role in the response similar to the authorities they had in a natural disaster, where the law and response doctrine call for an integrated, Federally led response. Finally, the states affected or at risk were led by Republican governors, and the event occurred just prior to mid-term elections in President Obama's first term. Every meeting with leaders, from local Louisiana parishes and the White House to BP and commercial fishermen, had political overtones.

Co-producing the outcomes needed to address this unprecedented event required a deconstruction of the problem into executable segments and a laser-like focus on those tasks. The response involved three segments of effort that were executed in parallel. The first and highest priority was to control the well and stop the discharge. The damaged wellhead on the seabed was over 5,000 feet below the ocean surface. The ultimate solution was to seal the damaged well with cement and also drill a relief well near the oil reservoir another 12,000 feet below the ocean floor. In total, the relief well would need to be over 17,000 feet in vertical depth from the surface drill rig. These drilling operations were complex and required the deployment of massive amounts of equipment.

While the relief wells were being drilled, a series of attempts to seal or control the oil discharging from the well were attempted. A cap was fitted over the wellhead that allowed some oil to be brought to the surface and either flared off or transported ashore. Ultimately, a mechanical cap was fabricated and placed on the well in July 2005 that effectively ended the discharge. However, at my direction as the National Incident Commander, the well was not declared "dead" until the relief well was completed in September and the well was sealed.

The second phase was to contain as much oil as possible at the well and on the surface in the vicinity of the well where response techniques could be most effective. This effort was directed at the largest quantities of oil to prevent them from reaching shore. This included use of dispersants, in situ burning of the oil, and mechanical skimming. The aggregate amount of oil removed by these methods was constrained by sea and weather conditions that disaggregated the oil into hundreds of thousands of small slicks. The response was further complicated by environmental concerns related to the response methods and public discussion on the fate of the discharged oil in the water.

The third and final segment was to manage the consequences of oil reaching the shore with an emphasis on defending environmentally sensitive areas.

<sup>70</sup> Ibid.

This response was very difficult and resource intensive. In addition, it necessarily involved numerous state and local entities and contentious discussions regarding response priorities.

Throughout the process, the law required that BP and other involved companies fund all response costs, legitimate damage claims, and natural resource damages. The law in effect mandated co-production of the response under the authority and supervision of the Federal government, a structure created in the Oil Pollution Act of 1990<sup>71</sup> following the Exxon Valdez spill. The role of the response plan was not a concept easily grasped at all levels of government or by the public. There was a continual challenge to inform, explain, and, in some cases, defend the structure of the response.

### **Preparing for the future**

There is no simple formula for building personal and organizational competency to address complex problems and manage co-produced outcomes. Each problem is unique and requires some level of subject matter expertise and management skill to solve. That said, I believe the key is and always will be creating better leaders who have the traits and skills to be effective in complex situations. Long ago I stopped engaging in discussions about whether leaders are made or born and whether leadership can be learned. Anyone can be a better leader. My two key lessons learned from a lifetime of leading and managing complex problems are the need to engage in lifelong learning and become more emotionally intelligent.

Senior government leaders must make a personal commitment to lifelong learning and continual intellectual refreshment. Embedded in this concept is the understanding that position descriptions, goals, and objectives for senior leaders are not the ends to be achieved. In fact, they are only table stakes, an “ante” to act in a larger role in government. Those who seek promotions as their sole goal diminish themselves and their potential to serve. To remain relevant and effective, leaders must actively seek knowledge and become competent in the use of new and evolving tools and technologies. Such a competency also increases a leader’s capacity to address the growth of public participation via social and other media, as discussed at the outset.

Knowledgeable, well-informed leaders must also be grounded emotionally and capable of leading when complexity begins to introduce risk and attendant human responses. During the Deepwater Horizon oil spill response, BP Chief Executive Officer Tony Hayward made international headlines and negatively galvanized public opinion when he said he “wanted his life back.”<sup>72</sup> What he said was actually true. There were tens of thousands of

<sup>71</sup> Oil Pollution Act of 1990, 33 U.S.C. § 2701 et seq. (1990).

<sup>72</sup> Johnson, B. [climatebrad]. (2010, May 31). BP CEO Tony Hayward: “I’d like my life back.” [Video File]. Retrieved from <https://www.youtube.com/watch?v=MTdKa9eWNFw>



people involved in the response who wanted their lives back, including me. The problem was that it was not an appropriate statement by a leader in a senior consequential position, and it inferred a lack of empathy or personal commitment to a very complex problem. Hayward did not demonstrate emotional intelligence—generally the ability to recognize feelings and take them into account in thinking and acting.

There is a body of research that suggests that emotional intelligence enhances leadership capability. My personal journey has involved a deeper understanding of my own emotions and how I manage my feelings in times of stress and make decisions in compressed timeframes with incomplete information. Emotional intelligence is a source of calm and patience that allows for personal reflection in confronting complex situations, even urgent situations. During my interaction with the media and political leaders during the hurricane and oil spill responses, my credibility, honesty, and integrity were questioned, sometimes on live television. In those situations, it is important to focus on being clear, honest, and transparent. That is difficult to do if you cannot separate your emotions (which may be completely valid) from the task at hand, keeping your head.

As we seek to define the role of senior executives in a radically changing, fast world, it is critical that new leaders treat their profession as a trade or craft to be advanced and matured over a career and lifetime. If complexity and the need to co-produce outcomes are today's challenges for government leaders, lifelong learning and emotional intelligence are the building blocks of competency, insight, and responsible leadership. Warren Bennis, the distinguished thinker on leadership, once said, "Managers do things right, leaders do the right thing."<sup>73</sup> In a fast world, leaders have little choice. They must do both: the right things in the right way.

<sup>73</sup> Bennis, W. G., & Nanus, B. (1985). *Leaders: The strategies for taking charge*. New York, NY: Harper & Row.