

Changing Homeland Security: Shape Patterns, Not Programs

Christopher Bellavita

PRELUDE TO VEXATION

What is a homeland security future worth creating?¹ Each of us could posit an answer to that question. After enough talk, we would probably agree on the broad outlines of a desirable future. Eventually we could develop a strategy for implementing that vision – or at least some of it – within the next ten years. But as the years passed, our vision would encounter the tedium of incrementalism, the discontinuity of unexpected disappointment, and the surprise of unearned fortune.

Nietzsche wrote about this process:

To make plans and project designs brings with it many good sensations; and whoever had the strength to be nothing but a forger of plans his whole life long would be a very happy man. But he would occasionally have to take a rest from this activity by carrying out a plan – and then comes the vexation and the sobering up.²

Homeland security strategy – defined as the pattern of consistent behavior over time – is both intentional and emergent. The homeland security community does a continually improving job identifying and enacting intended strategy.³ The community is less effective explicitly acknowledging and integrating emergent strategy. We can do better.

Getting where we want to be in the next decade will be somewhat like driving at night. We know broadly what our destination could be. But we see only as far as our headlights shine and we do not know what we will encounter on the road.

This essay describes a framework that can help keep the homeland security community between the white lines on the road to a future worth creating. It recommends a strategic process that incorporates the dynamic realities of complex adaptive systems. It asserts that recognizing and managing systemic patterns – rather than focusing on programs – would benefit homeland security.⁴

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ACT ONE: PASSING ALONG THE PROLOGUE

SCENE 1: GLAUCON IS TALKING TO SOCRATES.

GLAUCON'S FIVE-YEAR-OLD SON HAS A BIRTHDAY NEXT MONTH, AND GLAUCON IS LOOKING FOR ADVICE ABOUT PLANNING THE PARTY.⁵

Socrates: *What is your thinking thus far?*

Glaucon: *Well, we have a birthday party strategy. The goal is for everyone to have a safe and enjoyable time. We have specific and measurable objectives we want to accomplish. We have identified the key milestones from now until the party. We have a timeline to follow, including a tabletop exercise. We are assuming a three-hour operational phase followed by a two-hour recovery. That evening, we will conduct a hot wash to identify any lessons learned to build into next year's birthday party planning.*

Socrates: *That appears to be an efficient and sound strategy. Why do you want my advice?*

Glaucon: *In our past conversations, you have disagreed with everything I said. You have talked me out of all my initial beliefs. I thought I would use you as quality control, just to make certain I did not miss anything.*

Socrates: *I really do not have anything to add. Your strategy appears to be rational and well conceived. I cannot imagine anything could go wrong. Shall we have lunch after the party so you can tell me how your strategy worked?*

SCENE 2: ONE MONTH AND ONE DAY LATER.

GLAUCON MEETS SOCRATES FOR LUNCH.

Socrates: *How was the party?*

Glaucon: *If I have to do anything like that again, I will drink hemlock.*

Socrates: *It did not go well?*

Glaucon: *Let me count the ways. It rained for most of the day. More children and parents attended than we planned for. Some of the people arrived hours before we were ready. They brought food, gifts, and animals and changed our careful arrangements into utter chaos. Some of the animals went into my study and scattered my projects everywhere. Organizing the children was like trying to get puppies to march. They did not respect or sit still for the devotional sacrifice. The boys constantly hit and wrestled each other. Many of the girls insulted and then shunned the daughter of Panagiotis, the wealthy merchant. The child did not stop wailing. Her mother yelled at my wife. They cursed my family and left. One of the children painted his face and hair with our clothing dye. Then all the children did. And the parents blamed us for not hiding the dye. No one followed the order of the games we*

arranged. No one wanted to weave. Instead the children threw sticks and baskets at each other. They screeched like sea birds. The chaos went on forever until one child, unnoticed, left our house, walked to the end of our garden and fell into the sea. I have now made an eternal enemy of her father, the Tyrant Adamidis, and I fear for my life.

Socrates: *I see. Truly, that was a surprising outcome. Why did your strategy not work? What was revealed in your hot wash? Were there any lessons learned?*

Glaucon: *I am saddened to say it was a repeat of the lessons we have learned before: inadequate leadership, poor communications, ineffective planning, inadequate resources, and poor public relations.⁶ Can you help me understand why my strategy did not work?*

Socrates: *I am wise. But I am not that wise. Have you asked the women?*

Glaucon: *The women? Why would I ask the women?*

Socrates: *Talk with them and discover. Will you come back one year from today – if you are still alive, of course – and tell me what you have learned?*

SCENE 3: ONE YEAR LATER.
GLAUCON ARRIVES FOR LUNCH.

Socrates: *How was your son's birthday party?*

Glaucon: *How did you know there was a party?*

Socrates: *Are you not still alive?*

Glaucon: *It was a glorious and treasured day. All the guests were ecstatic. The children were filled with joy. The gods have smiled on my family. I no longer fear for safety or security.*

Socrates: *And the cause of this surprising change in fortune?*

Glaucon: *I did what you suggested. I listened to the women.*

Socrates: *What did they tell you?*

Glaucon: *Many things. But in short they said to make boundaries, create attractors, stabilize the patterns we desired, and disrupt the patterns that threatened danger and harm.*

Socrates: *I do not understand. Is there a story here?*

Glaucon: *We held the party at Panathinaikon Stadium. We set up places to eat, a site for crafts, a tent for shelter and rest, a station for music, and a space for art. Singers wandered and told stories. There was a field for wrestling and running and flying kites. We encouraged the children to try what they pleased. We helped if they asked, then we stepped back and watched. When*

there was hitting or crying or harsh words – and there was – we immediately spoke sternly or separated the offenders. Then we redirected them toward an established activity.

In sum, our strategy was to control only that which could be ordered. For those activities in the realm of that which is, and must be, unordered, we watched and we shaped – gently, but with insistence. Because I have learned to know the difference between the states of order and unordered, I am now seen by all Athens as the wisest of men. Second to you of course.

Socrates: *Truly your ideas appear to be sensible and well conceived. I cannot imagine anything ever could go wrong with that approach.*

Glaucon: *Yes, truly, the gods be praised. I cannot wait to use this strategy at the Agora.*

ACT TWO: “THE FUTURE IS HERE. IT’S JUST NOT WIDELY DISTRIBUTED YET.”⁷

A central justification for speculating about homeland security futures is to “make strategic decisions [today] that will be sound for all plausible futures.”⁸ Based on the nation’s experiences over the past five years, it appears the rapidly formed homeland security community remains too disordered to make coherent strategic decisions that have much intentional impact on even the short-term future.⁹ Instead, we have lots of people and organizations making and reacting to multiple homeland security decisions, generating a bubbling swamp of intended and unintended consequences.¹⁰

Most of the significant issues in the homeland security policy space are too undefined, too broad, too complex – in a phrase, too wicked – to allow an ordered and intentional journey into the future.¹¹ If this assessment is correct, how can strategic planning for the future of homeland security be anything other than what George Bernard Shaw said about chess: a foolish expedient for making idle people believe they are doing something very clever?

A Strategic Sense-making Framework for Homeland Security Futures¹²

Strategic homeland security issues can be located in five kinds of phenomenological space (Figure 1).¹³ “Known” and “knowable” issues are in the realm of the ordered (highlighted in Figure 1 in yellow), a world populated by scientific knowledge, research, technology, and standards-based human interactions. It is a world where efficiency is king.¹⁴ “Complex” and “chaotic” issues (highlighted in red) are in the province of the “unordered.”¹⁵ It is the

sphere of social systems, self-organization, emergence, and retrospective sense-making. Effectiveness is sovereign.¹⁶ The central space of Figure 1 is “disorder.”

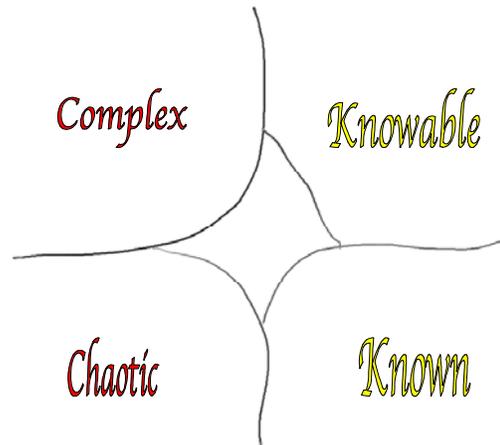


Figure 1: Sense-Making Domains in Homeland Security

Homeland security policy dynamics – now and in the future – are significantly influenced by how stakeholders perceive a specific issue. In the framework used here – known as the Cynefin framework – there are five ways to perceive an issue:

- (1) *The known*: a space where cause and effect are understood and predictable, hence “everyone”¹⁷ knows what to do about the issue. One example is a special event venue-design strategy that incorporates empirically based standoff distances for potential explosives.¹⁸ A second example is a decision that public safety personnel will use plain-language communications during an incident, rather than 10-Codes or other specialized idiom.¹⁹
- (2) *The knowable*: a space where cause and effect relationships may be difficult to derive or understand, but researchers and experts – given sufficient time and resources – can determine. An example is identifying and protecting critical nodes in a region’s electrical power or water distribution network.²⁰

- (3) *The complex*: a space where one knows cause and effect only retrospectively. What appears logical after the fact – i.e., when the dots have been connected – is but one of many other logical outcomes that could have occurred. There is no guarantee the cause-effect relationships will persist or repeat. This is the domain of complexity theory and complex adaptive systems. The pre-9/11 intelligence is one of many examples that fit this phenomenological space.²¹
- (4) *The chaotic*: a space so turbulent that cause and effect are unknown; strategically, it is not clear what to do with any measure of certainty. The example here is the first hours and days after Katrina hit the Gulf Coast.
- (5) *The disordered*: When there is insufficient stakeholder agreement about how to make sense out of a particular homeland security issue – the central space in Figure 1 – the issue can be said to be disordered. Cynthia Kurtz and David Snowden, who developed the Cynefin sense-making framework, assert the central space is key to understanding the conflicts among stakeholders about how to perceive and act on an issue:

...Individuals compete to interpret the central space [disorder] on the basis of their preference for action. Those most comfortable with stable order [the known] seek to create or enforce rules; experts seek to conduct research and accumulate data [in the knowable domain]; politicians seek to increase the number and range of their [network] contacts; and, finally, the dictators, eager to take advantage of a chaotic situation, seek absolute control.²²

On the surface, this framework is a potentially useful way to group homeland security issues. However, does the model contribute anything to understanding how to create a desirable homeland security future?

The Known in Homeland Security

There is very little of strategic utility in homeland security known with the precision of a scientific theory.²³ We can forecast with near certainty some aspects of the future, but their impact on homeland security is unknown. Here is a personal list. We will have one, maybe two new presidents in the next ten years. We will have five congresses. Terrorists will probably attack us again. There will likely be suicide bombers and car bombs in this country. Our transportation system and chemical plants will probably be hit.

If we are not attacked again within the next decade, it will be difficult to maintain the nation's homeland security apparatus. The national government's budget, let alone most states' and cities' budgets, will not sustain it. Homeland security as a national program will atrophy.

Anyone familiar with homeland security can build a list of probable futures. Nevertheless, the question remains: what strategic decisions should be made now to prepare for the disruptions the known future will bring (a new president, a new DHS Secretary, a new catastrophe)?



The Knowable In Homeland Security²⁴

Some dimensions of homeland security's strategic future are complicated, but knowable. Experts can construct functional outputs that will support strategic intentions. These tend to be the realms where technology plays more of a role than people: data and voice transmission systems, radiation and bio detectors, reducing vulnerabilities in networked infrastructure, using video surveillance data and so on. This space also includes standards-based behaviors, like the emergency management resource typing envisioned by the National Incident Management System and the 2006 Post-Katrina Emergency Management Reform Act.²⁵

In principle, the strategic decisions required to address issues in this domain are knowable because the space can be organized around the predictive utility of cause and effect relationships. It will take time and money to figure out what to do and sufficient power to mandate behaviors. However, there are strategic issues that can be ordered, constructed, and brought into the future. Figure 2 lists a few of the homeland security issues arguably situated in this domain.²⁶

Figure 2: Some Knowable Homeland Security Issues

- Securing systems against cyber terrorism
- Improving port and border inspection
- Improving information-sharing technologies
- Fusing intelligence information
- Assessing vulnerabilities
- Expanding hospital surge capacity
- Protecting chemical infrastructure
- Using the internet as a weapons delivery system
- Developing vaccines against pandemic disease
- Mass distribution of antibiotics and vaccines
- Protecting food supplies
- Quantum cryptology in information security
- Educating citizens about preparedness
- Increasing private sector involvement in homeland security
- Expanding terrorism risk insurance
- Achieving energy independence
- Creating collaborative networks
- Improving public transportation security
- Applying neurocognitive research to security systems

The Complex in Homeland Security

A hypothesis suggested by the Cynefin framework is that the most significant strategic issues the homeland security community will face in the next ten years are in the unordered domain of complex adaptive systems. Issues within this space will continually evolve in unpredictably interactive and uncontrollable ways. It is not obvious what decisions one can make today to affect outcomes in the complexity space. The assumption here is one can make only an educated guess about what the future will bring, and how it will bring it. Science and research offer little prospective assistance. Why issues unfolded as they did can only be known after the fact. Any apparent order in this space emerges through “retrospective coherence.”²⁷

The issues in this domain are “open problems.” They are *open* because they will never go away or be resolved fully. They are *problems* in both a functional sense (they are a source of grief and opportunity) and in a philosophical sense (they are issues from which the future of homeland security will emerge). The planning methodologies and strategic tools that work well in the ordered domain of known and knowable issues are ineffective in the domain of the unordered.²⁸ New modes of inquiry and action are needed if policymakers are to do more than watch the future of homeland security happen.

Figure 3 identifies some complex issues whose unfolding will influence the strategic future of homeland security.

Figure 3: Twenty Five Complex Homeland Security Issues

- **International terrorists** – Keeping international terrorists out of the country.
- **Radicalization** – Preventing the development of homegrown terrorists.
- **Pandemics** – Social impacts of pandemics.
- **Al Qaeda** – Al Qaeda's evolving strategic logic.
- **Iraq and Afghanistan** – The impact of the terrorism wars on homeland security.
- **Non-State Threats** – The evolution of non-state threats.
- **Next Generation Terrorists** – Preventing the next generation of domestic and international terrorists.
- **Agendas** – Determining which issues get on the homeland security policy agenda, and what happens to issues once they get on an agenda.
- **Leadership** – Appropriate models of effective leadership for the variety of environments in homeland security.
- **Governance** – Organizing homeland security at all levels to prevent and respond to terrorism.
- **Prevention** – The elements of an effective prevention strategy.
- **Technology** – What homeland security-related technologies work, what do not, and under what situations. What problems technology solves. What problems technology creates, especially when it fails²⁹
- **Resources** – What resources are needed to prevent terrorism, and where they are going to come from. What resources states and cities will contribute to keep their jurisdictions secure.
- **Allocation** – The basis for allocating homeland security resources.
- **Culture** – How the multiplicity of public, private, local, state, and national government cultures affect the success of homeland security projects.
- **Resilience** – How citizens and communities can become resilient to catastrophic events.
- **Social Capital** – How social capital is built, maintained, and used in a complex, multi-agency homeland security environment.
- **Authorities** – Whether agencies have the authority they need to accomplish security missions. What impact current and future authorities have on the Constitution, on civil liberties, and on the kind of nation we will be.
- **Communication** – How we share usable information more effectively, from both a technological and a sociological perspective.
- **Language** – The vocabulary of homeland security, and how we develop shared meanings across all sectors.
- **Contractors** – The roles contractors play in shaping the future of homeland security.
- **Knowledge transfer** – How we know when we have learned something significant about homeland security. How that knowledge is transferred to and adopted by others.
- **Standards** – How effective preparedness standards will be developed, adopted, maintained, and used.
- **Networks** – How self-organizing homeland security systems will be directed toward specific goals.
- **Imagination** – How the homeland security community can foster and maintain a creative imagination.

Chaos In Homeland Security

The chaotic state has no discernable order. There are no patterns. When lives are at stake, there is no time to wait for systems to organize themselves. The chaotic state is turbulent and requires stabilization or using the chaos as an opportunity

for innovation. Stability may have to be imposed – through knowledge, by authoritarian response, or by charismatic leadership.³⁰

How will the American people and their government respond to the first domestic dirty bomb, suicide bomber, biological attack, or pandemic? One can speculate, but until an incident happens, no one can know the answer with anything approaching certainty. The answer will emerge from the domain of chaos.

New Orleans after Katrina is an example of the chaotic homeland security space involving life safety issues. Initially, there were lots of victims, responders, policies, procedures, and systems interacting in uncontrolled and unpredictable ways. Eventually, Russell Honoré morphed from a Lieutenant General into a John Wayne dude and – according to the public narrative – saved the day.³¹ It is not clear he had the authority to do everything he did.³² He or some of his troops may have violated Posse Comitatus rules.³³ At the time – and even now – few people cared. The drama was real. The situation required a fix. Honoré's actions helped to initiate the appearance of stability. That gave Admiral Thad Allen and many others the opportunity to begin coordinating the federal government's more patterned response to the complex adaptive system that is now New Orleans.

MEETING THE FUTURE

Mensch tracht; Gott lacht (Man plans; God laughs.)
– Yiddish proverb

"In preparing for battle I have always found that plans are useless, but planning is indispensable."

– Dwight Eisenhower (attributed)

These two sayings illustrate strategic folk wisdom about unorder. There are realms of existence that cannot be controlled – a child's birthday party, for example, or a national strategy for homeland security. From a strategic perspective, homeland security is a complex adaptive social system created, maintained, and altered by more dependent variables than can be incorporated into any formula, heuristic, or plan.

The core assertion in this point of view is that since control is not a property of a complex social system, we cannot make strategic decisions today that will be sound for all plausible futures. Shaw, with modifications, may be correct: Strategic planning in homeland security for issues in the unordered domain is a foolish expedient for making dedicated and busy people believe they are doing something important.

The core assertion about control is readily tested.

1. *Make a decision:* Define what you want to happen in one homeland security issue space that has a significant human

component: voice interoperability within a public safety region that crosses political boundaries; risk assessment and risk management; information and intelligence sharing; collaboration among public safety disciplines; organizing across cities, states and regions; leading within a homeland security regional network; creating a culture of preparedness; developing and using metrics for the target capabilities list; determining how to allocate homeland security grants; protecting land, sea, and air borders; ensuring security of public transportation systems; protecting critical infrastructure; developing resilient communities; identifying terrorist threats, protecting privacy, preserving the core values of the U.S. Constitution, understanding judicial decisions that affect homeland security, expanding public health and medical capabilities, figuring out the role of the military in homeland security, managing complex incidents during an emergency, and so on.

2. *Assess the future:* Describe what could happen in the issue space you select within the next six months, one year, three years, five years, and then ten years.³⁴
3. *Expand the future:* Describe the interactive effects of the other issues on your selected homeland security issue. How, for example, will changes in military technology and judicial decisions affect the capacity of law enforcement and other public safety professions to share information, protect infrastructure, and so on?
4. *Incorporate the environment:* When that analysis is done, overlay environmental factors not directly related to the substance of those issues, first to each of the issues and then to the cascade of interactive effects: politics, demographics, economics, wars, changes in players, cultures, disasters, health issues, information flow, decisions, resources, laws, and/or unexpected events.
5. *Reassess your decision:* Check in every year or so to see how your forecasts are doing.

This is a difficult analytical task, probably impossible. We can envision, strategize, and plan with all the capacity, talent, and methodologies dedicated homeland security agencies and contractors can muster. However we will not know the future of homeland security until we get there. Once we arrive, we can connect dots, attribute cause and effect, identify lessons learned, and get conceptually fat on the other explanatory rituals we engage in. Traditional science

and certainty will not lead us to a homeland security future worth creating. Adaptability may.

Still, the rational hope that springs eternal insists that we must not avoid making our best decisions today. Our normative ideal is to make decisions within a strategic framework. The sense-making structure presented here suggests the best we probably can do about the future – at least in the province of unorder – is to make decisions based mostly on what we see today, and loosely on what we want to be doing tomorrow. Our stance needs to shift from the desire to design and control human systems (a strategy that works in the realm of the known and the knowable) to the ability to recognize and influence patterns in those systems.³⁵ We need to learn how to become a partner with an uncontrollable future.

Consider how one rears children. They are not little machines waiting to be directed by higher headquarters. They are people learning how to be free and responsible citizens. Their future emerges; it is not designed. So too with homeland security – it is only five years old.

Intermission: A Number of Presidents on the head of a pin

Herbert Hoover: *Let me understand what you are trying to say here. The American people – aided by knowledge, technology, and enough power to shame the wildest desires of ancient gods – should just throw up their hands and quit? Controlling our environment, creating the future we want is just too hard to do, so let us sit around and wait to see what happens?*

Abraham Lincoln: *That is not what I am hearing. I think the argument is keep trying to master what we can. There is much in the world we can know, can predict, and can shape to our intention. But when many people, organizations, and interests are involved, our directive power is practically for naught. Yes, we have the power to control almost anything if we had the will to do that. We have laws, courts, armies, police, and prisons to enforce our will. But that is not our Republic. I knew a rich man back home who loved the sound of one particular nightingale. He had it captured and brought to him and placed in an elegant cage. Of course that bird stopped singing and eating and it practically died before the man released it. The bird started singing again, but it never got back the song it used to have. I do not want our Republic to lose its song.*

Herbert Hoover: *An interesting theory, perhaps. Secretary Mellon advocated this “leave it alone” approach in 1929. I rejected it then as I reject it now. My intent was to encourage voluntary measures by the private sector, state, and local government to restart the engine of business and industry. My strategy was to rely on the independence and self-reliance of the American people. I wanted to allow economic restoration and growth to emerge through the market. You saw what happened. My reluctance to lead more forcefully harmed our country – almost irreparably.*

Franklin Roosevelt: *As I hear the argument, that is the point. You do try to control what you can and must. The idea is to understand when you can control and when you cannot. The argument is not, "Try harder and you can control more." It is learn to distinguish between the known, knowable, and the complex. It means use different strategies, different tools for different situations. I could not control the nation's economy either. But like any American president, I could strongly influence the national direction. My strategy was similar to Glaucon's. I set boundaries around where I was going to act. I established programs in the first 100 days – many of them my predecessor's ideas – without a clear idea of what they would do. I was probing to see what would happen. I was acting, not analyzing. My strategy was to shoot first, and then to aim. When the programs seemed to work, I stabilized them. When they did not – or when the courts said I could go no further – I stopped. My job as the strategic leader of the nation was to shape the future. Hitler and Stalin tried to control the future of their nations. Their legacy is fear and death. Our legacy is freedom.*

ACT THREE: BE HERE NOW³⁶

It helps to know where you are before deciding where you want to go. So where are we? As we enter the middle of our first homeland security decade, what is our strategy? And where did it come from?

If you believe our homeland security strategy can be described by citing the National Strategy for Homeland Security, then – with respect – you have not been paying close attention. In my view, no one knows with certainty what our homeland security strategy actually is. There are many opinions about it. Experts may eventually come to a consensus about what some – or maybe all – of it is. But if there is a current consensus, it has not been "widely distributed" within the homeland security community.

There is no single place one can go to discover even the "espoused" HLS strategy, let alone the strategy "in use."³⁷ As the Government Accountability Office and others have pointed out,³⁸ the homeland security strategy is a patchwork of multiple strategies, laws, presidential directives, grant guidance, and related documents. It includes the strategies and practices of state, local, and regional entities. It incorporates whatever the private sector is – or is not – doing.

But even if we just restricted our knowledge to the official National Strategy for Homeland Security, we still come up with as many questions as answers.

The first objective of the (Grand) National Strategy is to prevent terrorist attacks. What strategic guidance informs programs designed to achieve that objective? We have an "always activated" national response plan.³⁹ We have a national system for managing incidents. We have – or will have soon – a national catastrophic response plan. We have lots of response strategies. We have yet to develop a national strategy for preventing terrorism.⁴⁰

Obviously we are doing many things to prevent terrorism. My point is about the relationship between what we *are* doing and what our strategy says we *should be* doing. Someone could make the case that there is a relationship, and explain how it led us to where we are today with prevention. Any such description would be constructed by looking at what we are doing today – with fusion centers, better coordination among disciplines and regions, data mining, wiretapping, analyst training, and so on – and creating a plausible explanation about how we got here. In other words, we can know our prevention strategy – as we can know other parts of our homeland security strategy – retrospectively, not prospectively.⁴¹

(Audience interruption)

DHS Executive: *Your argument is simply not correct. We have numerous strategies. They may not be perfect, but they are thought out and for the most part integrated. Each one of them can be articulated. They identify ends, ways, and means. They inform our policies, our programs, and our budget decisions.*

Senate Homeland Security Leader: *I have to agree with DHS here. The nation's homeland security strategy is comprehensive and robust. While many problems remain unresolved, anyone knowledgeable in this area knows that we have made significant progress.*

House Homeland Security Leader: *I agree with the Senator and DHS. As a nation we have strong strategic direction, supported by many – not yet all – of the policies we need to carry out the strategy. We agree there remains a lot of work to do. But there is no question. We are better off now than we were five years ago.*

Author (mumbling): I wonder what the result would be if each of you and your staffs wrote down what you think our homeland security strategy is. How close, how detailed would each of the responses be? What would be included in the responses? What would be left out? And then how would that compare with the National Strategy – and others – as written, or with a consensus strategy derived from all of us talking about what has been created over the past five years?

Since homeland security is not just what happens in the District of Columbia, let's take the experiment on the road and visit the states and territories and tribes and UASI cities and professional associations and Northern Command. Let's talk to citizens who care about homeland security. What would we end up with then?

No doubt with enough time and talk we could look at the empirical evidence and come to some agreement about what the nation's strategy is. And that is my point. The coherence of the strategy comes after it has happened, not before. Homeland security is a complex human and technical system. No matter what we decide prospectively our strategy should be, we will only know, we *can* only know, after it happens.

And when we pause at that moment to congratulate ourselves for the perceptiveness of our retrospective coherence, homeland security will change some more.

ACT FOUR: TAXICAB PRESCRIPTIONS

Strategy is a pattern of consistent behavior over time. It is a mix of intended and realized behavior. It combines visions of the future with emergent adaptations. These are well known ideas that are compatible with the sense-making frame described in this paper.⁴²

Homeland security strategy in the known and knowable domain – mostly involving technology and standards – should be guided by norms of rationality, scientific knowledge and research, efficiency, and true “best practices.”

The other side of the homeland security strategic jungle – the side composed of complex social systems – is characterized by an ontological state of unordered. Cause and effect are known only after the fact, and through consensus. Replicability is illusory at any but the most global level of generalization. Best practice is replaced by smart practice, emergent practice, or novel practice.⁴³

The leadership task is to sift through the elements of strategic disorder (the center space in Figure 1) and determine whether an issue can be ordered – and thus subject to a rich set of knowledge and methodologies – or whether the issue’s organic state is unordered, and we are wasting time and resources trying – as Glaucon first did – to control the party.

Specific homeland security programs are a necessary, but insufficient, way to get us into a future worth creating. Homeland security strategy in the unordered domain requires a different approach – one compatible with the skills of a poet, storyteller, or old-school weather observer.

As noted throughout this essay, the central prescription for strategic action within complexity is to work at the level of patterns.⁴⁴ Acknowledge that retrospective coherence is an organic property of complexity, not an anomaly or flaw to be corrected. To influence what happens, establish boundaries. Use attractors to seed beneficial patterns. When a desired pattern forms, stabilize it. When undesirable patterns start to form, disrupt them.

One can cite the development of fusion centers as an example of an emergent, pattern-based approach to homeland security strategy.⁴⁵

Fusion centers started at the state level, in response to a post-9/11 recognition that information needed to be shared more effectively. Fusion centers were not mandated by the national government. Initially the centers – serving as “attractors” – primarily involved law enforcement agencies. Those boundaries expanded as state leaders in Georgia, Arizona, Illinois, and elsewhere recognized the need to share information with other disciplines. Based on the experiences of the centers, the National Governors Association, Homeland Security Advisory Council, the Department of Homeland Security, and others provide stakeholders with “stabilizing” guidance in how to establish fusions centers. The innovation

continues to spread with states, cities, and regions adapting the concept in ways that make sense in their jurisdictions.

In a recent systemic development, some analysts recognize that “fusion” means more than simply putting people from different agencies in the same room. Information also has to be fused.⁴⁶ This insight represents the early stages of another pattern in the continuing evolution of fusion centers.

There are some efforts being made to mandate standards for centers. That potential pattern will dissipate if imposed standards do not add value to intelligence activities.

In the District of Columbia, late one rainy January night, a man got into a taxi heading back to his hotel. His day had been spent going from building to building, attending one homeland security meeting after another. The cold, confusion, and complexity of the day, mixed with too much coffee and not enough food or sleep, colored his mood.

“This is some city,” he said to the driver. “I think they should break this place up and move pieces of the government all over the country. It shouldn’t be centralized like this. It’s too crazy.”

“No, you don’t want to do that,” the driver said, keeping his attention on the road. “You really want them all here, in one place, so you can keep an eye on them.”

The complex adaptive-system framework suggests an alternative to either the decentralizing or centralizing options offered by the passenger and driver: *use complexity*; take advantage of its properties as a way to strengthen the process and substance of homeland security strategy.

Homeland security will travel toward the future in the company of rationalists who see order and intentionality, and realists who see the coherence of strategy retrospectively. Homeland security – as a distinct policy domain – can formalize the interaction and learning between the two worldviews. It can support regular inquiry – a forum or idea market⁴⁷ – in the dance between homeland security strategy espoused and homeland security strategy in use.

The purpose of formal and recurring strategic inquiry would be to monitor and identify trends in strategic intentions, discontinuities, and coherence. The findings from the periodic inquiry would be distributed into the complex adaptive mix of information that swirls within homeland security.

What happens after that can only be known retrospectively.

CODA: DOGMAS OF THE PAST

Abraham Lincoln’s message to congress on December 1, 1862 included words cited before and after the September 11, 2001 attacks.⁴⁸ They are words worth recalling:

We can succeed only by concert. It is not "can *any* of us *imagine* better," but "can we *all* do better?" The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise – with the occasion. As our case is new, so we must think anew, and act anew.

Recognizing the strategic difference between order, disorder, and unordered – and responding accordingly – can be at the heart of thinking and acting anew.

Christopher Bellavita teaches in the master's degree program at the Naval Postgraduate School in Monterey, California. An instructor with twenty years experience in security planning and operations, he serves as the director of academic programs for the Center for Homeland Defense and Security and executive editor of Homeland Security Affairs. He received his Ph.D. from the University of California, Berkeley.

¹ The question was suggested by Thomas P. Barnett, *The Pentagon's New Map* (New York: Putnam, 2004).

² Maxim 85 in Friedrich Wilhelm Nietzsche, *Human, All Too Human* (Stanford University Press, 2000).

³ The phrase "homeland security community" and the pronoun "we" are used in this paper to refer to the state, local, national, tribal, private sector, international, and citizen stakeholders who have an attentive interest in homeland security. The Department of Homeland Security is obviously an important part of this community. It is not the only significant element.

⁴ An abbreviated version of this paper was presented at the "Homeland Security 2015" conference, October 11-12, 2006, sponsored by the Department of Homeland Security and Georgetown University.

⁵ The idea for this example came from an analysis of David Snowden's "Cynefin Framework," found at <http://matt.blogs.it/stories/2004/03/15/daveSnowdenCynefinDynamics.html>; accessed October 1, 2006. Catherine Wall and Heather Issvoran provided technical assistance about what happens at a birthday party.

⁶ See Amy K. Donahue and Robert V. Tuohy, "Lessons We Don't Learn: A Study of the Lessons of Disasters, Why We Repeat Them, and How We Can Learn Them," *Homeland Security Affairs* II, no. 2 (July 2006). <http://www.hsaj.org/?article=2.2.4>

⁷ The quote is from William Gibson, whose book *Pattern Recognition* (New York: Putnam, 2003) illustrates some of the patterning ideas expressed in this paper. Tim O'Reilly explained Gibson's quote this way: "The shape of things to come is already implicit in a thousand small clues. Then, in a sudden shift of mindset, it becomes obvious to everyone." <http://www.oreillynet.com/et2002/>; accessed September 29, 2006.

⁸ Peter Schwartz, *The Art of the Long View: Planning for the Future in an Uncertain World* (New York: Currency, 1996), xiv.

⁹ A recent example of this dynamic can be found in the details of the Post-Katrina Emergency Management Reform Act of 2006-10-03, attached to the Department of Homeland Security FY 2007 Appropriations Bill H.R. 5441.

¹⁰ For examples see Richard Clarke, Rand Beers, et al., *The Forgotten Homeland: A Century Foundation Task Force Report* (New York: Century Foundation, 2006); Center for Best Practices, Michael E. O'Hanlon, et al., *Protecting the Homeland* (Washington, D.C.: Brookings Institution Press, 2006); Brian M. Jenkins, *Unconquerable Nation: Knowing Our Enemy, Strengthening Ourselves* (Santa Monica, CA: RAND, 2006). Clark Kent Ervin, *Open Target: Where America Is Vulnerable to Attack* (New York: Palgrave Macmillan, 2006); and Daniel Benjamin and Steven Simon, *The Next Attack: The Failure of the War on Terror and a Strategy for Getting It Right* (New York: Henry Holt and Company, 2005).

¹¹ The notion of "wicked problems" comes from H. Rittel and M. Webber, "Dilemmas in a General Theory of Planning," *Policy Sciences*, Vol. 4 (Elsevier Scientific Publishing Company, Inc., Amsterdam, 1973): 155-169.

¹² The sense-making framework and many of the conceptual arguments used in this paper are adapted from C.F. Kurtz and D.J. Snowden, "The New Dynamics of Strategy: Sense-Making in a Complex and Complicated World," *IBM Systems Journal* 42, No. 3 (2003). Their article describes in much greater detail the Cynefin Framework. Snowden, in other writing, describes the meaning of the term "Cynefin" (pronounced cun-ev-in). The description conveys the potential meaning of the term for homeland security considerations. Cynefin "is a Welsh word with no direct equivalent in English. As a noun it is translated as habitat, as an adjective acquainted or familiar, but dictionary definitions fail to do it justice. A better, and more poetic, definition comes from the introduction to a collection of paintings by Kyffin Williams, an artist whose use of oils creates a new awareness of the mountains of his native land and their relationship to the spirituality of its people: 'It describes that relationship: the place of your birth and of your upbringing, the environment in which you live and to which you are naturally acclimatized.' (Source in original.) It differs from the Japanese concept of Ba, which is a 'shared space for emerging relationships' (Source in original) in that it links a community into its shared history – or histories – in a way that paradoxically both limits the perception of that community while enabling an instinctive and intuitive ability to adapt to conditions of profound uncertainty. In general, if a community is not physically, temporally and spiritually rooted, then it is alienated from its environment and will focus on survival rather than creativity and collaboration." From <http://www.cognitive-edge.com/2006/09/>; accessed September 30, 2006.

¹³ Phenomenology is used here in a very simple way to refer to phenomena as they are perceived rather than as they are in any objective sense. I found three other graphics, with explanations, that illustrate the work-in-progress that is the Cynefin framework. They can be found in Kurtz and Snowden, "New Dynamics," 468; French and Niculae, "Believe in the Model," 3 (see note 14); and Anonymous at <http://en.wikipedia.org/wiki/Cynefin>.

¹⁴ Kurtz and Snowden, "New Dynamics," 468-469; for additional information about the application of the Cynefin framework to emergency management and response, see Simon French and Carmen Niculae, "Believe in the Model: Mishandle the Emergency," *Journal of Homeland Security and Emergency Management* 2, no. 1 (2005). The French and Niculae article aided my understanding of the Cynefin framework.

¹⁵ For reasons to be described later in the paper, "unordered" is used, rather than "disordered." Unorder describes a state ontologically equivalent to "order" or "disorder." "Unorder is not the lack of order. It is a different kind of order, one not often considered but just as legitimate in its own way. Here we deliberately use the prefix 'un-' not in its standard sense of 'opposite of' but in the less common sense of conveying a paradox, connoting two things that are different but in another sense the same. Bram Stoker used this meaning to great effect in 1897 with the word 'undead,' which means neither dead nor alive but something similar to both and different from both." Kurtz and Snowden, "New Dynamics," 465-466.

¹⁶ Kurtz and Snowden, "New Dynamics," 469-470.

¹⁷ In this context, "everyone" refers to those who can be said to bring a substantive expertise or other active interest to homeland security.

¹⁸ Committee on the Review of Existing and Potential Standoff Explosives Detection Techniques, *Existing and Potential Standoff Explosives Detection Techniques*, ed. Board on Chemical Sciences and Technology (Washington D.C.: The National Academies Press, 2004).

¹⁹ “Ten-codes” (like 10-4: “message received”) are code words used to represent common phrases in voice communication, particularly within public safety.

²⁰ For examples, see Ted Lewis, *Critical Infrastructure Protection in Homeland Security: Defending a Networked Nation* (Hoboken, NJ: John Wiley & Sons, Inc., 2006).

²¹ Intelligence officials were criticized for not connecting the dots. The “connect the dots” metaphor assumes there is an external reality that can be shaped by drawing lines between dots of data. The ancients did that when they made the “obvious” connections about the Big Dipper or Orion the Hunter in the night sky. Before the patterns were applied retrospectively, there were other potential patterns that could be produced by a set of star data. Before September 11th, what was signal? What was noise? The problem with the pre-9/11 intelligence was there were too many events that could have been predicted, too many patterns to envision. For a discussion of some perceptual problems in intelligence, especially the role of hindsight bias, see Richards J. Heuer Jr., “Limits of Intelligence Analysis,” *Orbis* (Winter 2005).

²² Kurtz and Snowden, “New Dynamics,” 470.

²³ I am still looking for examples of issues that can fit within this space. One candidate is the radiation effect of a low level “dirty bomb.” Scientists suggest the biggest health risk from such a device would be panic, not cancer. Scientific knowledge that supports this view would be helpful in developing a dirty bomb preparedness strategy. See <http://www.aip.org/isns/reports/2002/038.html>; accessed October 5, 2006. Another example, cited by Rocco Casagrande (in “Technology Against Terror: Biologists and Engineers are Devising Early-Warning Systems That Can Detect a Bioterrorist Attack in Time to Blunt its Effects,” *Scientific American* 287, no. 4 (October 2002): 82-87), is the use of certain technologies for detecting the presence of biological weapons. Those technologies could inform particular Biodefense strategies.

²⁴ Source of the photo is http://sethgodin.typepad.com/seths_blog/2006/09/if_they_cant_ho.html. Accessed September 3, 2006.

²⁵ See http://www.nimsonline.com/resource_typing_system/index.htm; and the Post-Katrina Emergency Management Reform Act of 2006.

²⁶ The list of examples in this section – and in other sections of the paper – is more to demonstrate the concept than to argue definitively about an issue’s location. Kurtz and Snowden, “New Dynamics,” 471-474, describe how the Cynefin framework can be used in group settings to identify and discuss which issues (in this context, homeland security issues) best fit which part of the framework.

²⁷ Retrospective coherence can be defined as “When you look backwards, everything makes perfect sense... but it doesn’t make sense in advance.” David Snowden cited in Lisa Roner, “Knowledge Management in an Unordered World,” <http://www.eyeforpharma.com/index.asp?news=38182>; accessed 30 September 2006. Karl Weick calls this activity “retrospective sense making.” For a comparison of Weick and Snowden’s views of complexity, see Larry Browning and Thierry Boudes, “The Use of Narrative to Understand and Respond to Complexity: A Comparative Analysis of the Cynefin and Weickian Models,” *E:CO* 7, nos. 3-4 (2005).

²⁸ Steven Johnson, *Emergence* (New York: Touchstone, 2001); Jamshid Gharajedaghi, *Systems Thinking: Managing Chaos and Complexity: A Platform for Designing Business Architecture* (Burlington, MA: Butterworth-Heinemann, 1999).

²⁹ For an analysis of how technology can fail intelligently, see Charles C. Mann, “Homeland Insecurity,” *The Atlantic*, September 2002.

³⁰ Kurtz and Snowden, “New Dynamics,” 469, 474-475. When lives are not at stake – during a Top Officials Exercise (TOPOFF) for example – opportunities for imagination, creativity, and innovation appear as members of the homeland security community move from the known to the (simulated) chaotic. Similar opportunities arise during the chaos of catastrophe. The action imperative in the chaotic space is to move to a different ontological environment.

³¹ See “Lt. Gen. Honoré a ‘John Wayne dude’. Commander of relief effort in New Orleans takes charge,” CNN, September 3, 2005, <http://www.cnn.com/2005/US/09/02/honore.profile/>; accessed September 30, 2006.

³² Bill Walsh, Robert Travis Scott, and Jan Moller, "Bush, Blanco spar over military, visit," *New Orleans Times-Picayune*, September 6, 2005
http://www.nola.com/weblogs/print.ssf?/mtlogs/nola_tporleans/archives/print077199.html; accessed September 29, 2006.

³³ Craig T. Trebilcock, "The Myth of Posse Comitatus," *Journal of Homeland Security*, October 2000.
<http://www.homelandsecurity.org/journal/articles/Trebilcock.htm>; accessed September 28, 2006. See also Mackubin Thomas Owens, "Maintaining the Divide: Posse Comitatus should stay as is," *National Review Online*, October 26, 2005. Available at
<http://article.nationalreview.com/?q=NThmNjk2NmI3NWRkNDA4ODk4M2Y3ZjRiNmMxYmVhNGY=>;
 accessed September 28, 2006. Trebilcock concludes his article by observing that "Although no person has ever been successfully prosecuted under the act, ...[officers] have had their careers abruptly brought to a close by misusing federal military assets to support a purely civilian criminal matter."

³⁴ For a discussion of how to do such an assessment, see Peter Schwartz, *The Art of the Long View*; Kees van der Heijden, *Scenarios: The Art of Strategic Conversation* (West Sussex, England: John Wiley & Sons, 1996).

³⁵ Gharajedaghi, in *Systems Thinking*, 51-52, identifies "four kinds of attractors that determine the nature of ... patterns: 1) Point attractor (drawn to or repelled from a particular activity). 2) Cycle attractor (oscillation between two or more activities). 3) Torus attractor (organized complexity repeating itself). 4) Strange attractor (unpredictable complex patterns emerging over time)."

³⁶ The quote comes from the book of the same name. Ram Dass, *Be Here Now* (Cristobal, NM: Lama Foundation, 1971).

³⁷ The distinction is adapted from Chris Argyris, "Teaching Smart People How to Learn," *Harvard Business Review* (May-June 1991). Strategy espoused is what one says the strategy is that governs behavior; strategy in-use is derived from trying to make sense of the actual behaviors of the people and agencies involved in homeland security.

³⁸ For example, see Raymond J. Decker, *Combating Terrorism: Observations of National Strategies Related to Terrorism* (Washington, D.C.: Government Accountability Office, 2003).

³⁹ "The NRP is always in effect..." U.S. Department of Homeland Security, *Quick Reference Guide for the National Response Plan* (May 2006): 1.

⁴⁰ One could note that the purpose of the National Response Plan is to "establish a comprehensive, national, all-hazards approach to domestic incident management across a spectrum of activities including *prevention, preparedness, response, and recovery*." (My emphasis) U.S. Department of Homeland Security, *National Response Plan* (December 2004): 2. It would be a semantic stretch, however, to assert that the nation's prevention strategy is embedded in its national *response* plan. That interpretation would also further diminish an already minimized strategic objective.

⁴¹ A description of this process can be found in Chapter 7 of Henry Mintzberg, Joseph Lampel, and Bruce Ahlstrand, *Strategy Safari: A Guided Tour through the Wilds of Strategic Management* (New York: Free Press, 1998), especially pages 195 through 199.

⁴² For examples, see Mintzberg, Lampel, and Ahlstrand, *Strategy Safari*.

⁴³ The idea of "smart practice" is from Eugene Bardach, *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving* 2nd ed. (Washington, D.C.: CQ Press, 2004), 91. Another visual representation of the Cynefin framework suggests using the term "best practice" for the Known domain, "good practice" for the Knowable domain, "emergent practice" for the Complex, and "novel practice" for the Chaotic domain. See <http://en.wikipedia.org/wiki/Cynefin>; accessed October 2, 2006.

⁴⁴ The best relevant definition I found for "pattern" is "a solution to a problem in context" (author unknown). What constitutes a "manageable pattern" in homeland security is a topic for future inquiry. Ideas about patterns may be found – among other places – in complex adaptive systems theory, knowledge management, software design, architecture, and organizational narratives literature.

⁴⁵ National Governors Association, "Establishing State Intelligence Fusion Centers," NGA Center for Best Practices (2005); Homeland Security Advisory Council, "Intelligence Information Sharing Initiative: Homeland Security Intelligence & Information Fusion," U.S. Department of Homeland Security (2005).

⁴⁶ For example, the Homeland Security Advisory Council report in Note 45 identifies the first step in the analysis process as "Blend data, information, and intelligence received from multiple sources." Fusions centers are now sufficiently mature to attend to what that means in practice.

⁴⁷ For discussion of idea markets, see William C. Taylor, "Here's An Idea: Let Everyone Have Ideas," *New York Times*, March 26, 2006.

<http://www.nytimes.com/2006/03/26/business/yourmoney/26mgmt.html?ex=1160280000&en=790371998bf4a18f&ei=5070>; accessed September 18, 2006; Robin Hanson, "The Informed Press Favored the Policy Analysis Market," Department of Economics, George Mason University, May 5, 2005. <http://hanson.gmu.edu/policyanalysismarket.html>; accessed May 19, 2005.

⁴⁸ Donald T. Phillips, *Lincoln on Leadership: Executive Strategies for Tough Times* (New York: Warner Books, 1993): 137; Stephen Flynn, *America the Vulnerable* (New York, NY: HarperCollins, 2004), 155.