DaVinci's Horse #6

Perspective on Decision Making in Severe Crisis
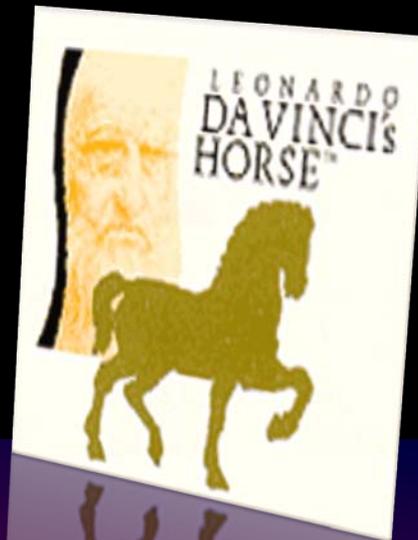
At Five Years:

Unconventional Crisis, Narrative Rationality, Sense-making, and the Readiness Factor

Project White Horse began in 2006 as a quest - first, for understanding the elements of time critical decision making in worst case disasters and second, for further knowledge necessary to support readiness of the people who will be called upon to make those decisions when time is their enemy.

The intended end result was and still is focused on learning about "how we think" rather than "what we think" (i.e., following the playbook) in critical time sensitive worst cases.

The make-up of "worst cases" of this century, was offered as the combination of:

1. Technology - results and application of scientific progress
2. Globalization
3. Mother Nature's defense of her turf in response to man's progression
4. Terrorist and non-state actors actions both at home and abroad

The question was "how to respond" when the nature of the crisis is outside all that had been considered probable. But of great concern was "What if nothing leaders have ever been taught or experienced is sufficient to the problem?"

Author Alvin Toffler's words resound: "The illiterate of the twenty-first century will not be those who can neither read nor write, but rather those who will not learn, unlearn, relearn."

The goal then for the project:

A forum for exploration and learning, a forum for exchange of ideas on decision making and leadership when faced with severe crisis.

Context

> ## Unconventional hyper complex threats and crisis events.

Recent experience indicates that both rare events and those that may occur predictably - but have potential for extremely rare severity - repeatedly overwhelmed traditional mechanisms for crisis planning, management and response.

Today's society is extremely complex. When complex systems fail, the results are catastrophically chaotic. This complexity makes it nearly impossible for traditional leadership and organizational structures to plan, let alone coordinate response efforts.

> ## The entire community "system" can be destabilized

Questions

- How do we become better prepared for events we can predict but have extreme possibilities or ready for the unpredictable uncertain outlier "Black Swans?"

- Why are unconventional crises so different and how do they drive leadership and learning requirements?

- What if nothing leaders have ever been taught or experienced is sufficient to the problem?

- What type of organizations are capable of operating at the necessary decision cycle tempos?

- How can community leaders make better decisions faster?

- What are the key concepts that must be incorporated?

- Do concepts such as the Observe-Orient-Decide-Act (OODA Loop), Recognition Primed Decision Making, and Team of Leaders offer significant promise?

- What is the role of the citizen and how can the community at large (First Responders, leaders, citizens, and private sector together) learn and implement these concepts?

As the effort progressed, a working premise evolved:

*In order to become resilient communities, every single person in America - parents, teachers, students, police and government officials – as individual citizens and as organization members, must become our own best resource, ready to act in our own survival process, capable of effective support to First Responders, with decreased need for assistance, allowing that first response to be focused on most critical elements. As we increase our ability to respond to disasters - natural or man-made - psychologically, physically, tactically, and mentally, we directly and positively affect the crisis decision making process. We as knowledgeable adaptable citizens – **we the people – become a significant participant in our survival as a nation on our own terms.***

In consideration, the organization of effort, research, and type of articles offered evolved into four main categories:

- Defining the severe crisis environment of the 21st Century
- Presenting multiple perspectives and elements of necessary knowledge
- Defining and coming to understand the concept of *resilient communities*
- Presenting elements of essential information focused on actionable understanding for a **culture of preparedness**.

Counting the current issue, there are eleven editions made up of eight website editions plus three other major focus efforts (archived as an Edition) provided as articles in the FORUM (blog) in series format. A separate FORUM piece – INTERSECTIONS – has been created based on the concept of *Intersectional ideas -* those resulting from combining concepts from multiple fields (areas of specialization gained through education and experience) as compared to those created traditionally by combing concepts within a field – noted as *directional ideas*. **Success** in intersectional idea generation is <u>dependent upon</u> <u>breaking down barriers of association</u> that would more than likely indicate a "non relationship" or at best limited context between or among fields. The focus – creation of actionable understanding.


| Intro | Analysis & Synthesis | Exploring Perspectives | Virginia Tech Perspective | Fourth Generation Warfare | Resilient Communities | Leaders (FORUM) | Culture of Preparedness INTERSECTIONS | What Kind of War (FORUM) | Boundary Conditions (FORUM) |

Along with these offerings, a series on perspective - **DaVinci's Horse -** has also been offered. This piece is the sixth in that series and is intended to provide an organizing overview of key points introduced in PWH to date. Each DVH piece has centered on a key theme: 1) Value of perspective; 2) Recognition of mismatches between observations and models; 3) Will to prepare; 4) Resiliency; 5) Knowing what to do vice doing what you know. This current piece leverages the idea of Narrative Rationality and the Deep Story from Venkatesh Rao's recent book *TEMPO – Timing, Tactics and Strategy in Narrative-Driven Decision Making*.

The philosophy behind Rao's book is the idea of a *situated* decision-making philosophy. This is "based on the assumption that that there is no meaningful way to talk about specific decisions outside of a narrative frame and a concrete context, any more than it is possible to talk about physics without reference to a specific, *physical* coordinate system." He considers this in terms of what he calls **narrative rationality** - the capacity to experience time and see the world through stories.

The foundation is composed of **liminal** or threshold passages which bracket a significant period of exploration or learning, indeed an episode of **creative destruction**. This he labels a **deep story**. This narrative rationality allows you to structure behavior meaningfully even when feedback is impoverished, delayed or ambiguous.

When first read, I was immediately struck by the relationships with both John Boyd's **"Destruction and Creation"** concept and Gary Klein's use of stories in his **Recognition Primed Decision Making**, both of which are threads that run throughout PWH articles and thinking. Given that the main thoughts presented in Project White Horse *084640* run like threads through the multiple editions, this construct seemed most suited as a writing organization tool for a look back, rather than trying to review by individual edition.

As with any narrative/story a deep story model starts with a basic rise-fall structure of simple stories and adds a second pathway to reflect the necessary complexity. The context of the pieces of this Double Freytag Triangle are explained (taken with only minor changes directly from TEMPO Chapter 4) in the following paragraphs.

Climax

Rising Action

Falling Action

Story telling The Freytag Triangle

Exposition

Resolution

The Double Freytag Triangle
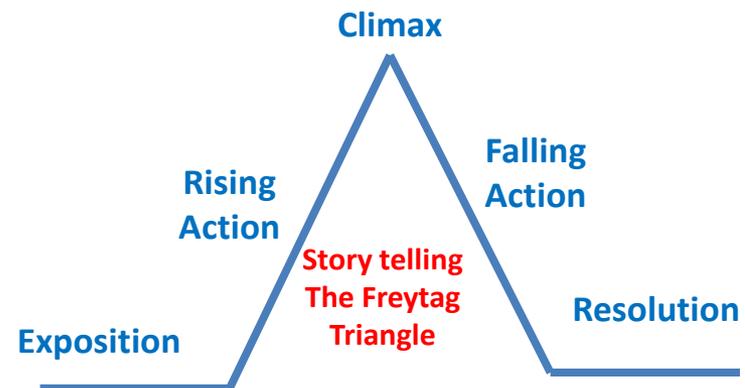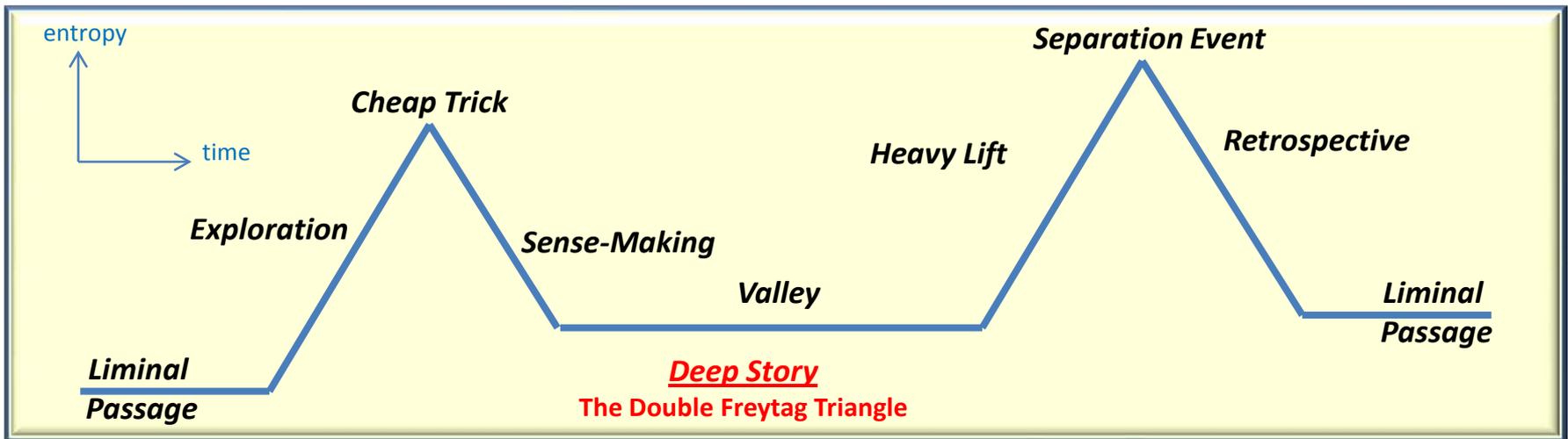
> **Liminal Passages** bound both the beginning and the end of the model. The first provides the threshold for beginning exploration of our story and the end signifies the need to move into a different context. Between is the research, thinking, hypothesis building, sense making and possible design of problem solution.

> **Exploration** is a process that accumulates the raw information for building a mental model. It increases both the size and disorderliness or entropy (bringing in more questions and paths of search) of the developing model for a fundamentally new situation.

> **The Cheap Trick** occurs when you recognize an exploitable pattern in the raw material collected in the exploration phase. In a deep story, the default question is "What's going on, what should I do?" The cheap trick provides an answer in the form of a key organizing insight that motivates the action in the rest of the story. Every such insight is flawed, since it is based on excluding some part of reality. This will eventually catch up with you, but it allows time and focus. The term "cheap trick" derives from H.L. Mencken's quip, "for every complex question, there is an answer that is simple, elegant and wrong."

> **Sense-Making** is the process of reflection on the original complex problem and re-organization so that the pieces fit together in a meaningful way and lend the model significant and coherent momentum. Sense-making is intended to provide both a compelling and elegant way to view the situation. This however does not necessarily mean the answer is real or correct. "All models are wrong, some are useful." Your elegant mental model will eventually be proved wrong to a greater or lesser degree. Whether it is useful or not depends on getting through the next phase of the deep story:

> **The Valley** is the period of building your prototype, a phase of initially rapid, and then slowing momentum, eventually followed by a return to uncertainty and diminishing returns from your effort. It is a difficult phase because there's no real reward or validation realized for your effort.

> **The Heavy Lift** is a deliberate forced effort to break through the resistance of non-validated work and move towards a recognizable outcome. Does your original concept have value or not? Expedient decisions with necessary imperfections and compromises result but the heavy lift leading to a potential answer is a required step in a deep story.

> **The Separation Event** is the moment when a significant proportion of the newly created mental model, along with its momentum, is externalized into the environment, as an act of creative destruction. Here in context of John Boyd's Snowmobile context, *analysis/destruction* is finished, and now moving past *synthesis/creation*, the Snowmobile is presented to the market for true **model-to-observation** operational test. This encounter with reality opens the concept for others to challenge and imbue their own meaning and changes.

> ***The Retrospective*** is the phase during which the decision maker attempts to return to the original premise. Doctrine is revised and the deep story is cast into a final hopefully stable form, in a way that validates the revised doctrine for the new model. The retrospective is not the same as a post action de-brief and final report to include "lessons learned." Rather it provides a continuing model and process for analysis-synthesis.

The extent that we can return to the low-entropy (low disorganization, low uncertainty) liminal passage is determined by the extent to which we are able to make sense of the impact (or lack thereof) of our post-separation activities. If the separation event (crescendo) is successful, the cheap trick that drove the deep story is validated, and we extend it to explain and organize the new realities it has weathered. If the separation fails we must continue then to search for new meanings – new snowmobiles.

Honest introspection, destruction and creation is required as we move forward, hopefully to a next more informed ***liminal/threshold passage*** related to our survival in the 21st Century. We cannot assume we now can "do what we know," we must continue to learn, to search for "knowing what to do."

I leave it to the reader to reflect on the deep story of the passage since September 11, 2001, concerning how we reacted and whether we are indeed a safer nation ten years later.

But for now let us look at Project White Horse *084640* as a deep story embedded within the last five of those ten years and the concern with and research on how we make decisions in severe crisis.

Much of the original background for PWH originated from military experiences with test, training, and experimentation with smart weapons and the supporting and evolving C4ISR technology and process. The USS Cole and 9-11 events led to increasing personal involvement with exercises related to homeland defense. Observation of the command control process on the public safety side and relationships developed during that learning process led to the earliest PWH chapters offered before the website was started.

This became what I now see as the initial Liminal Passage. Of course the ten previous PWH editions as presented over time were not designed to match the Double Freytag Model, but I find it most intriguing how close the threads connecting the authors' writing and the intent of each edition match the deep story approach. I can now present the previous five years in light of TEMPO's Double Freytag flow as follows:

➢ The Liminal Passage for PWH really derives from the assumed necessary distinction for decision making and leadership when a crisis takes on unconventional or catastrophic nature. The premise would be that for worst case events, leadership becomes more about adaptability and the *art of command* rather than extrapolation of process developed for lesser events and the *science of control*. Boyd's **OODA Loop** and the thoughts from **Destruction and Creation** were seen as the initial tools for addressing decision making in severe crisis as different from routine or "regular" emergencies.

➢ Exploration – Throughout the first three editions, using Boyd as a starting point, we looked at Gary Klein's *Recognition Primed Decision Making*, Don Vandergriff's *Adaptive Leader Model*, needs for improved intelligence process for anti-terrorism, all while exploring multiple perspectives of our environment: the story of the 9-11 attacks, Beslan, Virginia Tech, 4GW, emerging urban issues and Mexico's criminal/narco insurgency.

➤ <u>The Cheap Trick</u> – By the end of the fourth edition the ideas of High Reliability Organizations (HRO), resiliency and civil-military coordination in a catastrophe had been addressed, and the question was on the table as to whether emergency response was a management of an exceptional event or did severe crisis indicate the need for a more complex perspective and process? The <u>exploitable pattern/organizing thought</u> which was carried forward was the idea of a ***Resilient Community.***

➤ <u>Sense Making and the Valley</u> - This part of the deep story for the decision process when faced with severe crisis included discussion of Generals Bradford and Brown's Team of Leaders (TOL) concept, multiple articles considered key knowledge or "Essential Elements of Information" for gaining and maintaining resiliency, the opening of the INTERSECTION discussions, and the FORUM series ***What Kind of War*** which expanded on the terrorism, insurgency, and Fourth Generation Warfare perspectives previously discussed by John Giduck, John Robb, G.I. Wilson, and John Sullivan.

➤ <u>The Heavy Lift</u> – Given that I am defining the effort and thinking for PWH in terms of Rao's deep story <u>after the fact</u>, the *heavy lift, separation event* and *retrospective* must be seen as somewhat overlapping and subjective. General Honore's Idea of a *culture of preparedness*, and the emphasis on "knowing what to do," vs. "doing what you know," by Dag von Lubitz seem a best portrayal as the final underpinning of a proposed new mental model and its objectives in regard to severe crisis decision making. The four *2011 Boundary Conditions* of 1) unconventional crisis, 2) high reliability organizations, 3) Washington's leadership in the Revolutionary War, and 4) the use of John Boyd's concepts for analysis serve here initially in the role of helping to discern and refine the model and its parts, and are therefore part of the heavy lift.

➢ The prototype model or *snowmobile*, upon which the <u>Separation Event</u> is based is offered as a complimentary aspect of a "culture of preparedness" – The **Readiness Factor**. The critical point here is acknowledging that difference between "preparedness" and "readiness." As noted in DaVinci's Horse #5 *preparedness* is response based on foreseeing, at least to some degree, the types and manifestations of crisis and disaster and their consequences.

Readiness is based on ability to act immediately to a suddenly occurring, unforeseen or unpredictable event, using whatever is available. This type of activity response is known as *bricolage,* as in the action in the old TV series ***MacGyver,*** the stories of a resourceful agent able to solve complex life threatening problems with everyday materials he finds at hand, along with his ever-present duct tape and Swiss Army knife. Herein comes recognition that you can't prepare for all events. For example tornadoes don't lend themselves to decision making based on observation of the distant threat, i.e., any direction you go after being given 20 min warning could be wrong; I grew up in the South, never heard of anything like what happened this year in Tuscaloosa, so what could you have done?

Bricoleurs remain creative under pressure, precisely because they routinely act in chaotic conditions and pull order out of them. Discussed at the end of this piece, an analysis of a disaster that went from supposedly well understood to overwhelming in a few short minutes offers this: *"If improvisation were given more attention in the job description …that person's receptiveness to and generation of role improvisations might be enhanced. As a result, when one organization order collapses, a substitute might be invented immediately. Swift replacement of a traditional order would forestall the paralysis* (loss of situational understanding) *that can follow a command to "drop your tools"* – and do something completely counter intuitive.

<u>The Readiness Factor</u> or **learned *adaptability* or *creativity*** – figuring out how to use what you already know in order to go beyond what you currently think, but *learning* required.

➢The Retrospective - The four "2011 Boundary Conditions" which are a part of the *heavy lift* now become a way of leveraging the thoughts presented in the last five years as a vehicle for examining the readiness culture concept. Events in which much was risked, much was challenged and good decision making was crucial, can be seen as representative or not of the aspects of the new model. This series will extend with modifications or expansion of conditions as necessary to match discussion and world events.

The two main articles for this 11th Edition were selected because within the research and discussions in developing the boundary condition articles, **unconventional** crisis as presented by Dr. Lagadec and the **Cynefin Framework** as explained by Dave Snowden and Mary Boone were considered to be extremely necessary to a culture of readiness model. Discussed in the FORUM, it seemed provision of greater detail was most warranted. Further, use of OODA analysis within an unconventional crisis, highlights the need to understand and take in to account the distinction noted among *ordered*, *disordered*, and *unordered* states by the *Cynefin Framework.* This seems most appropriate when trying to understand what the correct first action should be when picking up one's self and their community after disaster strikes. We get the first observation from the crisis whether we're looking or not. But the necessary following first orientation, decision and action, and then a directed observation may not be so obvious.

➢ A next Liminal Passage {?} Can we manage a crisis before it becomes crisis with only limited knowledge? Can we make sense out of severe uncertainty? And act so as to survive? Can we operate at the tempo necessary? The next steps remain to be defined, but we certainly must learn to "know what to do." For now, Part 2 of DaVinci's Horse #6 will highlight selected critical elements from the deep story to date, which seem most important for a **readiness factor** as complimentary to a **culture of preparedness**. Analysis/synthesis… destruction /creation…

Before closing, one more story as consistent with PWH and DaVinci's Horse view of stories i.e., context, as crucial to learning. … really a story about a story – The Mann Gulch Disaster:

The story of the death of 13 men in August 1949 in the Mann Gulch fire disaster, made famous in Norman Maclean's **Young Men and Fire**, is probably well known to most firemen, and to those who study organizational response. Much about the events remains a mystery today despite significant analysis and many articles and books. Research has concluded that the disaster at Mann Gulch was produced by the interrelated <u>collapse of sense-making and role structure in a minimal organization.</u> Certainly of interest for small unit tactics situations, but it must be noted that the response to many disasters devolve into "small" decision/action groups, even at emergency management levels. In addition, the membership of those groups may be far less experienced than planned due to the impact of the disaster. There is significant retrospective to this deep story.

Karl Weick in **The Collapse of Sense-making in Organizations: The Mann Gulch Disaster -** analysis of Mann Gulch and Maclean's research and book - noted "If we can understand this collapse, we may be able to forestall similar disasters in other organizations," and further stating "I argue that the tragedy at Mann Gulch alerts us to an unsuspected source of vulnerability in organizations. Minimal organizations, such as we find in the crew at Mann Gulch, are susceptible to sudden losses of meaning, which have been variously described as fundamental surprises or events that are inconceivable, hidden, or incomprehensible ."

He then asks the question pertinent to our purpose here: "Why do organizations unravel? And how can organizations be more resilient?"

<u>Quickly the basic story</u>: Based on a Forest Service report, on the afternoon of August 4, 1949, fifteen Smokejumpers from Missoula Montana parachuted onto the south side of Mann Gulch to take on what they considered a "ten o'clock" event – a fire expected to be surrounded and controlled by 10 AM the next morning – a simple, well understood, routine event well within their functional skills and operational capabilities.

At 4:10 PM they landed, ate a meal, the team leader, Wagner 'Wag' Dodge and the Forest Service Ranger already on site, scouted the fire, at 5:40 Dodge was leading his team towards the river on the north side of the Gulch, by 6 PM, the *"10 o'clock"* had come violently undone.

"At this point the reader hits the most chilling sentence in the entire book: "Then Dodge saw it!" (p.70 Young Men and Fire). What he saw was that the fire had crossed the gulch just 200 yards ahead and was moving toward them. Dodge turned the crew around and had them angle up the 76-percent hill toward the ridge at the top. They were soon moving through bunch grass that was two and a half feet tall and were quickly losing ground to the 30- foot-high flames that were soon moving toward them at 610 feet per minute. <u>Dodge yelled at the crew to drop their tools, and then, to everyone's astonishment, he lit a fire in front of them and ordered them to lie down in the area it had burned. No one did</u>, and they all ran for the ridge. Two people, Sallee and Rumsey, made it through a crevice in the ridge unburned, Hellman made it over the ridge burned horribly and died at noon the next day, Dodge lived by lying down in the ashes of his escape fire, and one other person, Joseph Sylvia, lived for a short while and then died. The hands on Harrison's watch melted at 5:56, which has been treated officially as the time the 13 people died. -Weick

This story provides two distinct contrasts significant for perspective on the idea of readiness. First, Dodge's action was that of a bricoleur as discussed previously. Dodge's invention of burning a hole in a fire should not have happened - What we do not expect under life threatening pressure is creativity. The Forest Service inquiry held after the fire, felt that the men would have been saved had they "heeded Dodge's efforts to get them to go into the escape fire area with him." But they did not take his direction and all but two perished. And *why* is the second point of significance and basis for much research and conjecture.

Organizations become important because they can provide meaning and order in the face of environments that impose ill-defined, contradictory demands. Dodge was an unknown entity and there was no team coherence beyond functional qualifications to be a smokejumper. The thinking along this line is that given that this was a *hasty-formed* team, when their unknown leader (read un-validated in team members perspective) ordered them to "drop their tools," now faced with obvious calamity, they lost the sense of being *firemen-on-a-mission* and became individuals without team organization to provide meaning and support. The disaster at Mann Gulch has been judged to have been produced by the interrelated collapse of sense-making and organizational structure.

Sense-making is a major part of the two major pieces of this edition by Erwan Lagadec, Dave Snowden and Mary Boone. That context is offered as possibly the critical element for developing a culture of readiness. Sense-making cannot be a static entity, the world changes, crisis changes, and "knowing what to do" must be an everyday learning requirement.

I'll close DaVinci's Horse #6 Part 1 with just a few amplifying comments from Weick's analysis of the Mann Gulch Disaster that seem most appropriate to decision making and survival on our own terms when faced with severe crisis:

➤ People, including those who are smokejumpers, act as if events cohere in time and space and that change unfolds in an orderly manner. (A Disruption) episode occurs when people suddenly and deeply feel that the universe is no longer a rational, orderly system. What makes such an episode so shattering is that both the sense of what is occurring and the means to rebuild that sense collapse together.

➤ The crew's stubborn belief that it faced a *10:00 fire* is a powerful reminder that positive illusions can kill people. But the more general point is that organizations can be good at decision making and still falter. They falter because of deficient sense-making. The world of decision making is about strategic rationality. It is built from clear questions and clear answers that attempt to remove ignorance. The world of sense-making is different. The basic idea of sense-making is that reality is an ongoing accomplishment that emerges from efforts to create order and make retrospective sense of what occurs. Sense-making is about contextual rationality. It is built out of vague questions, muddy answers, and negotiated agreements that attempt to reduce confusion

➤ The collapse of role systems need not result in disaster if people develop skills in improvisation and bricolage .

➤ Creativity – figuring out how to use what you already know in order to go beyond what you currently think.

DaVinci's Horse #6

THE READINESS FACTOR
ELEMENTS

The deep story flow leading to a "separation event" and a proposed new model seemed an effective way for encapsulation of a different perspective on decision making in severe crisis, one formed over 10 years personal effort with subsequent PWH website published work over the last 5 years.

In review, every article and comment in the past five years offered critical insight and indeed, those thoughts are embedded within the idea of the Readiness Factor model. Much thanks to all the authors (listed next) and particularly to Venkatesh Rao, upon whose recent work, much of DVH #6 leverages.

That said, please see Part 2 for those elements considered the essential core of knowledge for the concept and the two featured articles by Erwan Lagadec, Dave Snowden, and Mary Boone. JEB

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* Note "I" = INTERSECTION DVH = DaVinci's Horse