

Mapping Quantum Storytelling Fractal Patterns Before and Beneath Triple Bottom Line's and Veterans Administration's Stupid Narratives

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Abstract: We live in organizations addicted to stupid narratives. My purpose is to develop intelligent action understandings of how to care for organizations addicted to stupid elevator pitch narratives and one-sided stories by mapping quantum storytelling "[Tamara-land](#)" forces ignored beneath and between them both (Boje, 1995). *Tamara-land* is the everyday activity of people in organizations chasing stories spatially distributed in different rooms, hallways, buildings that are temporally simultaneous, with materialities that are agential to the telling. For example, in this conference the immersive theater into [Tamara-land](#) is done in SteelCase open office spaces, as audience decides which actors to follow as they exit each scene. You cannot chase them all, and cannot be everywhere at once in this *spacetimemattering*. Quantum Storytelling does not search for simpleton word or text messaging tag lines to explain open office. Quantum Storytelling uncovers deep behavior patterns of the *spacetimemattering*. "Quantum storytelling includes nondiscursive and behavioral aspects embodied in the storyteller's life, in their living story behavioral-performative agentiality" (Ibid: p. 114) and in non-human's materialism featured in Karen Barad's (2007) and Anete Strand's (2011) material storytelling work. Quantum storytelling of [Tamara-land](#) mapping at macro scale traces the interplay of people, planet, and profit (aka Triple Bottom Line, 3BL), but does not reduce it to stupidly imagined profitability metrics. I will critique 3BL for not proposing any method to measure people and planet first, and by default reducing all P's to just bottom line *profitability measures*. The consequence is that a runaway, maximizing fractal, known in socioeconomic work as the Taylor-Fayol-Weber rationality or 'TFW virus' of greed capitalism (Worley, Zardet, Bonnet, & Savall, 2015: 23-24; Savall & Peron, 2015) attains stupid functional-structuralism (Alvesson & Spicer, 2012). In quantum storytelling fractal work its 'TFW fractal' profiteering that is destroying both planet and people, at an ever-accelerating rate (Boje & Henderson, 2014; Boje, 2015; Henderson & Boje, 2015). I will also do a quantum storytelling mapping of U.S. Veterans Administration (VA) stupid fractal narrative. VA is implementing a Cyborg-TFW fractal in its Polytrauma wards serving veterans coming back from Iraq and Afghanistan with multiple Traumatic Brain Injuries (*Poly-TBI*). Its time to map the techno-digital-Skinnerian-Teaching/Learning-Machine-TFW fractal, and its addictive consequences on veterans. My point is that Quantum Storytelling Mapping has to account for the *spacetimemattering TFW fractal* runaway downward spiral *patterning* while searching for a quantum-counterforce, such as a socioeconomic Mandelbrot fractal that actually sets limits on runaway fractal appetite. Both

the 3BL and the VA fractal narratives spiral more and more materials, energy, people into the addictive TFW fractal virus pattern, without limit.

INTRODUCTION: What is Quantum Storytelling Mapping?

It's mapping the rules of the game that make for patterns before spoken and written words constellate into narrative order. It's usually what is not said that is the 'real' *quantum storytelling*! It's [Tamara-land](#): "Organizations cannot be registered as one story, but instead are a multiplicity, a plurality of stories and story interpretations in struggle with one another. People wander the halls and offices of organizations, simultaneously chasing storylines -- and that is the "work" of contemporary organizations. More important, organizational life is more indeterminate, more differentiated, more chaotic, than it is simple, systematic, monological, and hierarchical" (Boje, 1995). Quantum Storytelling cannot be a univocal, monological branded narrative! Mapping quantum storytelling attunes to pre-narrative and pre-story 'fractal' patterns of context of material actants, animals, plants, and material entities in *Tamara-land*. Quantum Storytelling is above all else dynamic plurality of story spaces, narrative times, and sociomateriality before, between, and beneath all narratives and all stories (Boje, 2014: 113-114).

"The pragmatic game rules have changed" and we need a major paradigm shift (Boje, 2014: xxv). "The game of storytelling in organizations is changing in the Quantum Age" (IBID). Quantum storytelling does not begin with words or text, it begins with the pattern to find game changing moves (Bonifer, 2008). Quantum storytelling cannot be a univocal, monological narrative! Quantum storytelling is above all else dynamic plurality. Quantum Storytelling is not a stump speech, not an elevator pitch, not branding of an organization's founding story, and definitely not a petrified narrative (Boje, 2014). Quantum storytelling is not the Town Crier, walking through the city giving the headlines. No, quantum storytelling would not accept these as the total patterns of our habits of communication, the whole fluctuation of future arriving to change which pasts that now matter, the entire shifting entanglements of humans with material things, or the underlying interweave of living stories and dead narratives.

Quantum storytelling does not reduce the web of living stories, narratives, and antenarrative connections to some singular tagline. This is not about social constructivism or finding one side of the story, or one summary narrative. "Quantum Storytelling is ontological, a manifestation of life process, a teleology conditioning the passage taking place to prewise the anticipated future and revise the accepted past" (Boje, 2014: 20). We are observing the passage! Our observing changes the Situation. Observing is not neutral.

What is Quantum Storytelling?

Quantum Storytelling is "not Newtonian materialism" (IBID). "Quantum Storytelling is posthumanist" (Boje, 2014: 48). There are no innocent bystanders to tragedy. "Quantum Storytelling is revising the future and reconstructing the past relevant to present emergence" (Boje, 2014: 19). Think of Quantum Storytelling as

the background, and the elevator pitch as the foreground. Narratives are assaults on vital materialism. William James (1907: 97) said, “things tell a story.” “Living things are implicated in selecting particular futures, and their pasts” (Boje, 2014: 20). As John Dewey (1929: xvii) might conclude our search for Quantum Storytelling is a search for “*pragmatic intelligent action.*”

“Antenarrative bets on the future condition... the passage itself by prevising the interpretation” (Boje, 2014: 20).

Quantum Storytelling implicates the patterns of life, while Narrative is misleading, a substitute for ‘real life’ existence. Quantum Storytelling is the interaction of humans, non-human actors, and material things, their energy, in what we call *spacetime mattering* (Strand, 2011; Boje & Henderson, 2014, Henderson & Boje, 2015; Boje, 2015) or what McCullough (2015) calls *timespacemattering*.

In the words of John Dewey (1925/1988: 28):

“Things are objects to be treated, used, acted upon and with, enjoyed and endured, even more than things to be known. They are things had before they are things cognized.”

“Our Quantum Storytelling is a conditioning of *spacetime mattering*” (Boje, 2014: 20). In a fractal ***SPACETIME mattering***, there are infinitely nested number of intervals. We can keep splitting the *spacetime MATTERING*-intervals, infinitesimally.

Quantum storytelling brings the world itself to life, our living relationship to Being-in-the-world. Quantum Storytelling is the pattern, the shifts in pattern, the repetitions of pattern of lots of storytelling, not just the stump speech given by the CEO trying to brand an identity, gives coherence to a strategy. No, Quantum Storytelling is not a solo performance, not a monological narrative, with a linear Beginning-Middle-End pitch line! Quantum Storytelling is not spoken words, not written texts. Rather it’s the patterns of the interactions of all the storytellers. Quantum Storytelling’s most radical move, is that its not human communication. Rather, Quantum Storytelling is humans and non-human actors, in their relation with materialities and technologies. Most of us in this room are post-humanists, which means we look at the pattern of the assemblage of actors and actants. And guess what? Actants are not human. They can be as microscopic as cells, electrons, protons, or as macro as the mountains, streams, and oceans, the Earth itself, her situation in one spiral arm of the Milky Way Galaxy. Humans, animals, plants and technologies are part of the assemblages of actors and actants, in the context of living earth, water, air, and fire. The assemblage of actors and material actants hold sway, Being-in-existence, the quantum storytelling transforming the relations, the momentum, the energy of the pattern.

Quantum Storytelling methods can transform the relation between things and humanity into greater awareness of the assemblages of sociomateriality. The pattern tells its story, and we observe it by our apparatuses, and change the path of the situation unfolding, fluctuating, vibrating as elements realign, entangle, and

disentangle. The pathology of the assemblage in its *spacetime mattering* is that we are all cyborgs, forever lost in entanglements with technologies, participating, and fully co-opted while co-constructing these actant-actor assemblage matters. Our identity is fully enmeshed with the newest technologies; the latest software changes our relations to our androids and iPhones. Outbox is withdrawing MAILBOX and Gmail has moved in INBOX, and we are shifting gigabytes and terabytes of data around to make the change.

We can begin to do the quantum storytelling, to make sense of the assemblage patterns. I am a Baby Boomer born in the industrial age that turned into the virtual age, and those new technologies have grave consequences. The Millennials, the X and Y-gens, are more cyborg that we were. Children are raised rarely going outside. My children never set foot in the ocean after the movie Jaws. Our students text and don't do email, could care less about MAILBOX giving its market to INBOX.

The Academy of Management continues to spread the TFW virus, infecting nation after nation. Unlike Midas Touch, AOM turns everything into its re-infection.



Figure 1: TFW Fractal Virus (drawing by Boje, 2015)

Quantum storytelling in spacetime mattering can be mapped, and messages and behavioral prompts are administered to veteran patients using GPS, Smartphone, and Smart Watch technologies. We are way beyond the Branching, the Sierpinski, or the Mandelbrot fractal images we see all over YouTubes.

Breaking Free of the Fractal Narrative Functional Stupidity

Frank Herbert's (1965) *Dune* is described as a fractal narrative: "Plots Within Plots ... Patterns Within Patterns" in chaos-theory dynamical system concepts and structures "ecological motif" that is potentially alterable by a minimal change in one variable 'the water cycle' (Palumbo, 1998: 433). The fractal narrative, is self-similar reiterations of near-clone polysemic pattern-structures across the scalability (Palumbo, 1998, 2002, 2004, 2008). And what it reiterates is TFW fractal narrative. That does not mean the fractal narrative is not complicated. The *Dune* series of novels and films expresses recurring "plans within plans", "plots within plots" and "patterns within patterns" of self-similarity that form a "monomyth" of motifs, shapes, and so on in a recurring framework across the same fractal scale (Palumbo, 1998: 434).

Roland Barthes (1973: 3) put it this way narrative analysts attempt "to see all the world's stories (and there have been ever so many) within a single structure." Its just the monological narrative move (Boje, 2008). Narrative science reduces the plurality of living stories and all the counter narratives to a simplistic typology, taxonomy, schemata that substitutes its map for the territory. But quantum storytelling is the pattern of the field of infinite differences, the plural networks of interaction, what Tonya Henderson and I call the fractal and the multifractal.

Not Recreating the TFW Fractal Virus

Let's not make the mistake of turning quantum storytelling into junk science. When we begin to map quantum storytelling, we must not fall into the trap of the 'Fractal Organization', which only relabels Taylor-Fayol-Weber (TFW virus), reselling us old wine in new bottles (Warnecke, 1993; Warnecke, 2012; Montreuil, 1999; Shin, Mun, & Jung, 2009; Hoverstadt, 2011; Bodunkova & Chernaya, 2012). My goal here is to show how fractal organization, fractal factory, and fractal company is just the TFW Fractal, reborn. A TFW Fractal is self-similar if it has undergone a transformation whereby the dimensions of the structure were all modified by the same scaling factor, Taylor-Fayol-Weber! Let's look at the parts, one by one.

Frederick Winslow Taylor's Scientific Management Part of Fractal Organization

Frederick Winslow Taylor's Scientific Management combined with Henri Fayol Administration Principles and Max Weber' Rational-Legal Bureaucratic Principles. It is the perfect storm, integrating Taylor focus on task engineering, with Fayol's scalar chain, and weber's ideal top-down, rule-governed bureaucracy. The common frame is the organization is driven by top-down strategy making executives, people behave according to so-called rational economic standards, and the people at the bottom of the pyramid are machinelike in efficient precision by engineering design principles.

TFW fractal organization had some good points. Taylor wanted employees to receive a fair living wage. Centralizing the administration functions for Fayol was an organic alternative Taylor's scientific engineering of jobs. But, the scalar chain (line

of authority) running from top to bottom, was, quite militaristic, and thus its corporate appeal.

The theme of Taylorism is pervasive in Charlie Chaplin's film *Modern Times* (1936). In the case of TFW fractal, the part, e.g. Charlie Chaplin in *Modern Times* does not receive much from the Taylorism mechanistic scientific management of time and motion.



Figure 2: Charlie Chaplain putting Monkey Wrenches in the cogs of Fractal Organization Narrative

Charlie Chaplin puts his monkey wrenches right into the Tayloristic production machine.

But does the FRACTAL ORGANIZATION look any different than Taylor-Fayol-Weber, the TFW fractal organization? In the Fractal Organization, a central staff of administrators creates the vision, policies, resource distributions, and all those standards upon standards (Boje, 2015), which become the planning and design rules for middle management, and then are routinized into the shop floor.



Figure 3: The Feeding Machine of Scientific Management

Imagine Chaplin as the Tramp worker in the industrial medication machine-producing addicts, who can be functionally reintegrated back into society.

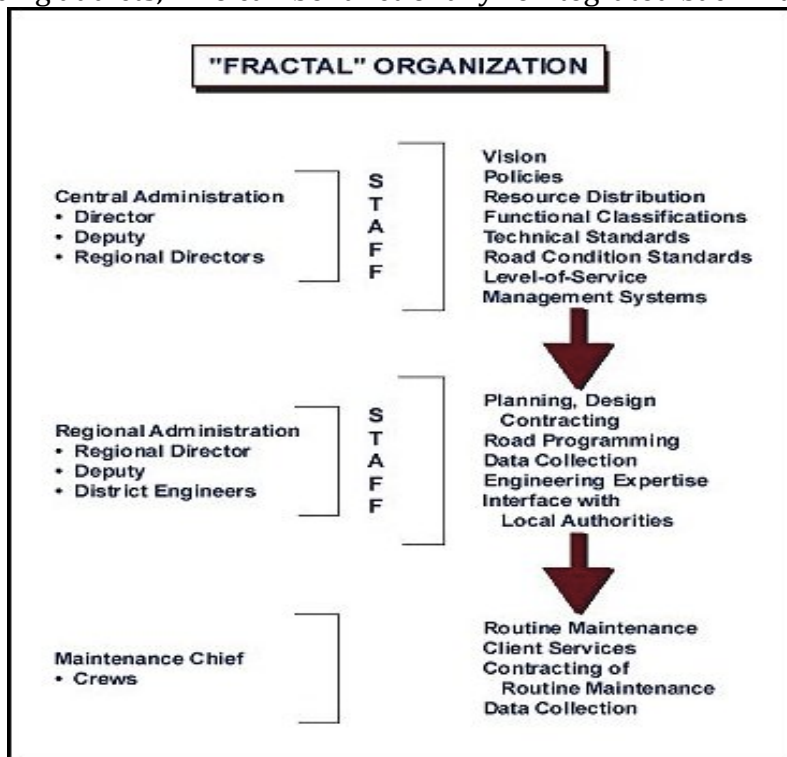


Figure 4: Fractal Organization Model, World Bank

Source: World Bank

http://www.worldbank.org/transport/roads/pl_sect1.htm

The Fractal Organization is still the TFW fractal narrative reincarnated. That puts it all into a Fractal Spiral

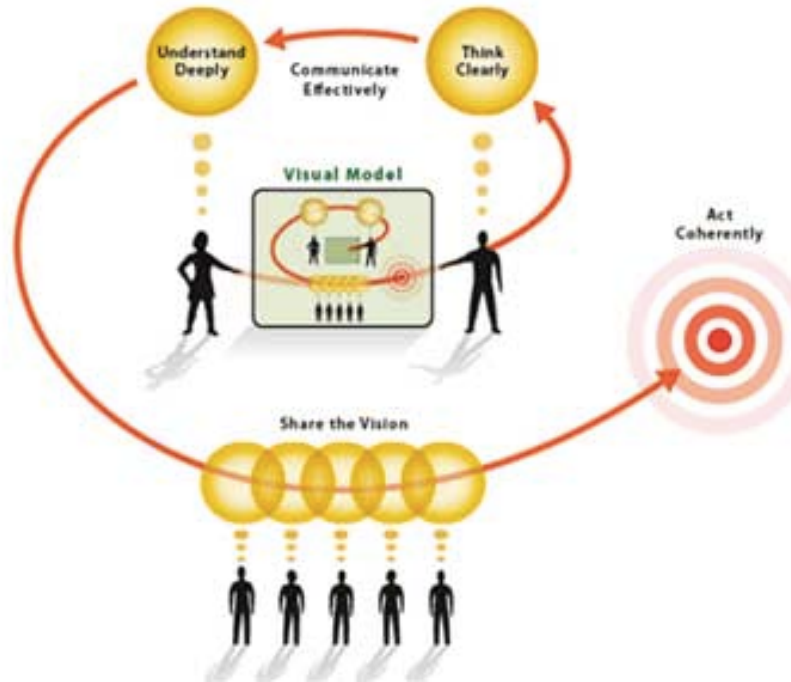


Figure 5: Fractal Spiral Organization Model (source: <http://fractalorgs.com/fractalorgcharts>).

The Fractal Spiral Organization is a linearity made into a spiral, a linear sequence of steps from top to bottom, to act coherently in a fractal narrative.

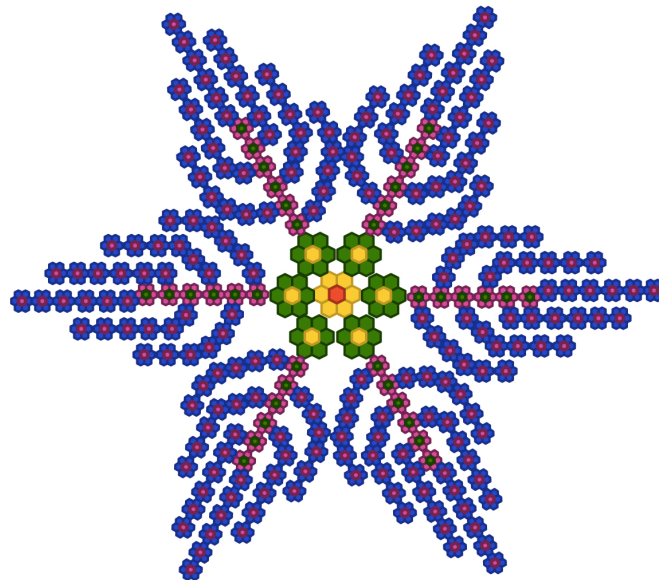


Figure 6: Branching Corporate Fractal (Ibid).

In the branching fractal, the repetition from the center of the hierarchy to the periphery. The Fractal Social Organization tells us “the whole is more than the sum of its parts” Aristotle. The whole fractal pattern of storytelling gives you more than the sum of its parts. We cannot just assemble the story-as-parts into a whole, you need a Fractal Life Ecology, not just fractal geometry, with the same terms applied.

Next, we look at the Administrative Order part of the TFW Fractal.

HENRI FAYOL FRACTAL

Henri Fayol was born in 1841, and became a French mining engineer. who at 19 years of age, started a mining company, producing iron and steel in France. He became managing director in 1888, and in 1916 published his book, about the same time as Frederick Winslow Taylor. Fayol had 14 principles and five functions of management, including division of work, authority bpower linked to exact obedience, discipline and penalties, etc. He became toe Father of Modern Management Theory, practiced in our colleges of business. He made a link between strategies and organization administration. His principles and functions of organizing finance, production, and distribution are used widely today. He contributed to managerial functions, specific managerial skills, the technical (production, manufacture, and adaptation) the commercial (buying, selling, exchange, and financial (search for optimum use of capital). The inputs of Men, Money, Materials, Machines, Methods, and Market go though the strategic management process to realize objective, by planning, organizing, directing, coordinating, controlling, motivating, staffing and communicating. The 14 Pinciples:

1. Division of work
2. Authority
3. Discipline
4. Unity of Commands
5. Unity of Direciton
6. Subordination of INdiviudal Interest to the Gneral Interest
7. Remunerations
8. Centralization
9. Scalar Chain
10. Order
11. Equity
12. Initiative
13. Stability of Tenure of Personnel Employees
14. Esprit de Corps

The Fractal Organization book by Patrick Hoverstadt (2011) is the epitome of the Fayol's administrative order.

Max Weber's Bureaucracy Part of the TFW Fractal

Weber (1864-1920) was a German lawyer, politician, historian, political economist and sociologist.

Weber's principles include hierarchical structure, management by rules, organization of functional specialties (departments), separation of the person from their role in an office, and employment based on technical qualifications. It is not all that different form Fayol. Weber's division of labor broke jobs into routine, simple,

well-defined tasks. The authority hierarch organized the chain of command (what Fayol called scalar chain). Formal rules and regulations set up standard operating procedures, and uniform impersonality controls of personalities. Etc.

Weber's Bureaucracy combined with Fayol's administrative order, and Taylors, scientific management to create the TFW fractal virus, that is the most efficient form of organizations, that we see everywhere today.

Don't be outsmarted by a univocal fractal narrative! Duarte (2014) examines how the fractal narratives of recursivity, repetition, and self-sameness are moving from fractal geometry into books, movies, and music. Yes, nature has fractals and multifractals, but that does not mean that the Fractal Corporation or the Fractal University has been cured of the TFW fractal. It is just one more old wine in new bottles, in a linear succession of how humankind constructs narrative spaces that are now developed in films, music, and so on. Yes, its just one more bureaucratic pathology. Let's look at two examples. First, we address how the TFW fractal reinvented itself in the Triple Bottom Line (3BL).

THE 3BL LINE EXAMPLE OF TFW FRACTAL

3BL is an example of the monofractal carried out to what Alvesson and Spicer (2012: 1194) call, functional stupidity: "Functional stupidity refers to an absence of reflexivity, a refusal to use intellectual capacities in other than myopic ways, and avoidance of justifications."

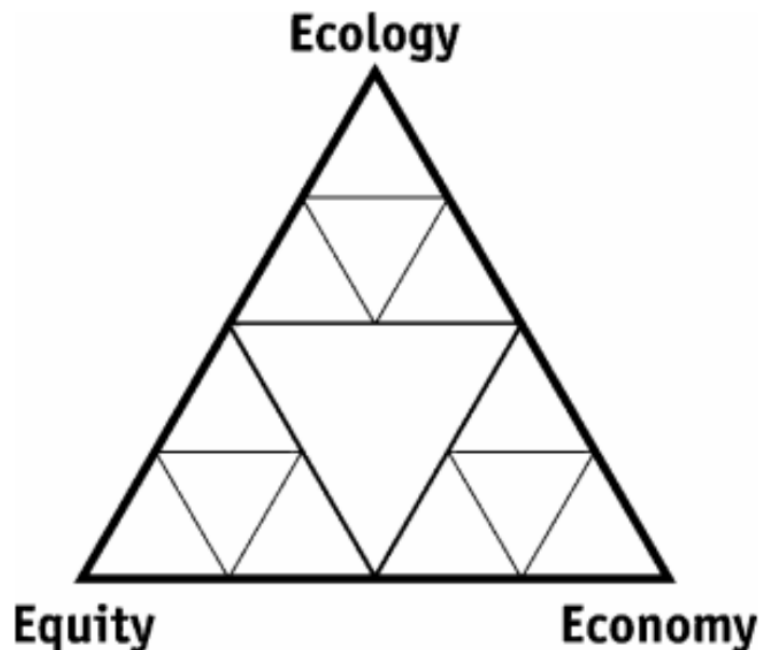


Figure 7: 3BL Model from McDonough & Braungart, 2002, based on Sierpinski Triangle Fractal



Figure 8: The Triple Bottom Line (3BL) Fractal is just the same old TFW Fractal Virus (image from

<http://www.chinauscenter.org/attachments/0000/0001/CradleDesign.pdf>).

3BL is equity, economy, and ecology or people, profit, and planet, and aka cradle to cradle design (Benkert, 2010; McDonough & Braungart, 2002). Norman and MacDonald (2004) are critical of 3BL because of three reasons:

1. 3BL advocates never actually propose how to measure the addition of profit bottom line + People bottom line + Planet bottom line.
2. Without an agreed methodology, the income statement trumps the people and planet measurement.
3. Triple Bottom Line – does not address how TFW fractal maximizes profit by destroying people and planet.

The functional stupidity written into the game rules of the TFW virus will continue to replicate in modern organizations until we begin to measure the consequences, the dysfunctions of all the functional stupidity.

Next a look at the U.S. Veterans Administration (VA), a case of TFW infection in health care.

THE VA EXAMPLE OF MODERN TIMES TFW FRACTAL

This *mise-en-scene* re-ordering changing of the spacetime mattering constructed by the VA, to constellate inter-relationships of veterans and VA and the cyborg automations need to ask critical questions about this technology, and what it is revealing (the enframing by Heidegger is implied here).

Foremost the VA has set priorities to do something about the long wait times of veterans seeking appointments, and the veterans missing appointments and the veterans self-medicating, instead of staying on the VA medication regime.

Some Stupid VA Stories:

“VA claims backlog now under 100,000 – lowest in department history” (Aug 24 2015 [source](#)). More info “VA reduced the disability claims backlog to 98,535. This is the lowest it has ever been in VA’s history, and it represents an 84-percent reduction from its peak of 611,000 claims in March 2013” (IBID.).

COMMENTS “THE REAL NUMBER IS 83% VETERANS DENIED DISABILITY CLAIMS. VA IS BUNCH OF LIARS AND HOLDING ON TO THEIR JOBS LIKE FLIES ON (redacted). THEY ARE DOING THIS TO IMPRESS THE NEW VA CHIEF.

MY SLEEP APNEA CLAIM DENIED, EVEN THOUGH I HAVE SEVERE SLEEP APNEA AND HAVE A CPAP MACHINE PROVIDED BY THE VA. HOW STUPID IS THAT?”

2nd COMMENT: “jay vanderford [August 27, 2015 at 11:52 am](#)

Its truly sad that someone here claims to be from the VBA and is selling milk and cookies, you’re a fraud Jason, or you’re stupid to think that Veterans are going think that this is not just a big rope a dope. The VBA may in fact be doing their part, but the RO’s are where we are all getting the shaft. I have been dealing with claims sense retiring in 2006, I am still waiting and being shuffled around the system”

3rd COMMENT: “Chris H. [September 1, 2015 at 5:10 pm](#)

The only reason claims are down is because they are denying benefits out of hand and only investigating those who go through the long stupid process of appealing your denied claim. I have been fighting the VA for 3 years concerning my back, eye and wrist injuries from Iraq and they continue to tell me over and over the daily pain and trouble seeing and moving I have isn’t a real I jury and I’m making it up... anyone who tells you the VA has your best interest at heart obviously has never tried to get disability for an injury

Actually this last comment is something we hear in New Mexico, about going to El Paso VA, and having them dismiss your appointment before you get one, so the numbers look good.

You heard that: Jon Stewart vs. VA: How TV host raged against red tape

“That [April 2014 rant](#) reacted to reports of [mismanagement at a Phoenix VA facility](#) that included 1,700 veterans signing up for appointments and never appearing on the official wait list. It was far from the only time the VA made headlines during Stewart's tenure” ([source](#))

I say it’s the manifestation of Modern Times in Taylorism that has coupled with two other organizing fractals. We see the addiction to medication machine, that is creating a downward spiral fractal process the VA cannot exorcise itself out of, a factory system of health care, where addiction to meds is commonplace among our veterans, swallowing the meds, according to the cyber-machine, the computing machine, consumption and destruction protocol. Our veterans have been swallowed alive by a computerized Teaching and Learning machine of medication mechanization.

I seek a counter-fractal, a counter-narrative that is a monkey-wrenching Theater play, to re-enter the VA factory medicine, and change the industrial *spacetimattering*, to improvise a socioeconomic and medical therapy alternative to the VA misadventures.

I wish to show how Taylorism is part of a Multifractal of our organizations, particular the Veterans Administration, how it automatically does dedication prescribing, again and again, in a way the leads to addiction, depression, suicidal thoughts, and then suicide in a Downward Spiral. I want to show how even the new doubled-voiced computer machines with GPS and Smart-Watch technology used by the VA creates a drug addiction machine that is combined with time and motion studies of scientific management. We enter the belly of the beast in setting up Teaching and learning Automated Cyborgs to mechanize human behaviors of taking meds, showing up to VA appointments, emptying trash, getting ones meds, again and again. There is no escape from the Teaching and Learning Machine on the Polytrauma wards. It is Man-Machine consumption of the medications.

The Errorless Teaching and Learning Machine the VA uses in Polytrauma is engineered with Taylorism meets Skinner. Modern Times is reincarnated in the VA devouring GPS mapping machines of Teaching and Learning by the TBI veteran patients, being retaught the basic routines of society: show up for therapy appointments, take meds, refill prescriptions at the Wal-Mart, empty the trash. We need momentous change to this situation, to its socioeconomic paradigm.

The VA division of labor, its hierarchy of authority, its technically qualified personel, its rules and procedures, its separation of position and incumbent sets up the TFW fractal virus. It has been alleged that the VA creates drug addicts, and must enter out-patient drug addiction center, and this is Sick Care not Health Care.

<https://www.youtube.com/watch?v=xANPeeXAfmE>

It has been alleged that 19,400 veterans have died since waiting for health care from VA since WWII. The over-prescription of meds by VA turns our vets into drug addicts on opiates, benzodiazepine like Ativan and Klonopin, and morphine is an addictive med cocktail (Dr. Maureen McCarthy) is like candy for many veterans, who get addicted. Veterans deployed to Iraq and Afghanistan, injure their back etc. and start getting meds from the VA when finally seen, instead of surgery for disc repair, given drugs like Oxycodon, At certain VA hospitals over prescribe Oxycodon, morphine, Dilaudid. Residents are put on the fills for 6 months, and then in next six months, they proscribe some other cocktail of meds, and become drug addicted by the VA care. PTSD is an easy slap on label, and they get meds to help them sleep, and they get more drugs, Zoloft anti-depressants that increase suicidal thoughts and actions. <https://www.youtube.com/watch?v=xANPeeXAfmE>

The VA solution to care, even before diagnosis, is to assign meds that often are not needed. When you say how the meds have affected them, then they give more pills. The VA does not know how to treat TBI or PTSD other than to administer more and more meds, rather than to deal with the root causes, than treat the root quality of life issues.

22 veterans a day commit suicide. And at root for too many is the drug addiction from the VA Turning Veterans into drug Addicts.

<https://www.youtube.com/watch?v=Api-LmGsLw8> US Veterans being pumped full of addictive opiates, after rocket propelled grenade exploded, and Wagner became addicted to pain killers. And went to hospital to detox, that gave him even more OXYCODON, tranquilizers and muscle relaxers that he got from the VA,

Narcotic prescriptions for opiates continued to rise at this Oregon hospital. Prescriptions for 4 highly addictive pain killers have gone up and up, as the VA struggles to keep up with increased demand for care. The doctors know how to prescribe opiates, and are used to prescribing them. That makes your thinking problems worse, and you are going to be more and more depressed. Fatal overdose rates to patients is double the national average to non-VA doctors and hospitals. <https://www.youtube.com/watch?v=Api-LmGsLw8> Opioids over-medicated and the careful protocols for prescribing them not being followed. Veterans are addicted to opiates they get from the VA. One vet gave 4,000 OXYCODON pills, survived fire fights, not injured, but took pills to blot out the memories.

All over the Internet, family members tell stories about how the VA has been spiraling out of control. For example, a father alleges his son's life started spiraling out of control when VA doctors prescribed opiates that were addictive. <https://www.youtube.com/watch?v=Api-LmGsLw8>

About half the nation's veterans stay away from the VA. Without the meds have to cope with the flashbacks and the rage episodes in other ways.

We the Vietnam Veterans are the forgotten ones. Vietnam veterans came home addicted. E.g. 300,000 Vietnam vets in NYC with 40,000 are addicts, who got mostly dishonorable discharges and get not treatment other than methadone, the numbing drug. Vietnam vets had experiences of death, that led them to using drugs, and to overcome their fear in combat, they got high. When came down from drugs, would reel the rear and use again.

The downward spiral continues, with Iraq and Afghanistan veterans getting addicted in combats to meds to stay in the fight, then coming home after deployment, and having to get meds from the VA. The VA offered the addicted veteran six week methadone program or indefinite methadone meds. Allegedly, the VA treats about a 999, and leaves 35,000 Vietnam veterans without treatment. <https://www.youtube.com/watch?v=Q1TUON6xDdY>

THE POLYTRAUMA WARD EXAMPLE The Quantum Multifractal – The scalability of multifractals in the 'real' world. Multifractals are not only in the real world of nature, they are in the Veterans Administration being used in Polytrauma of veterans with TBI from IED or vehicular accidents. These are fractals of self-similarity at various scalability magnifications. Using data-mining the

This is an example of Quantum Storytelling, because over time the automated Teaching-Learning Computer, the interface of Human-Computer-Machine is mapping spatial locations, time-of-arrival, angle-of-arrival and departure, the completion or not of various tasks, and the automated prompts throughout the day. The behavioral prompts and reinforcement messages to learn to complete each kind of tasks, throughout the day, is done to assist the veteran to eventually live independently of the cyborg Errorless Teaching and Learning GPS System (Jasiewicz et al, 2011, 2014).

Veterans with Polytrauma, such as TBI that has both visual and hearing impairment, and memory loss of spatial awareness and memory loss of functional behaviors (showing up for appointments, taking meds, doing laundry, emptying the trash) can have tortuous paths in everyday ambulation in residential care facilities, and Polytrauma Wards. Path through the TAMARA like spaces and times of tasks and appointments constitutes an example of Tortuous Path Maps, since the Polytrauma veterans who experience Improvised Explosive Device detonations or vehicle accidents, etc. have memory loss and much spatial disorientation throughout the therapy, and the risk of safety. The tortuous veterans movement through the Polytrauma Ward is measured by Fractal Dimension (i.e. Fractal D) obtained by a sensor tracking system that maps veterans and staffs locations in a TAMARA like configuration. The veterans with Polytrauma brain injury, gets therapeutic prompts to do the everyday tasks and positive reinforcement messages, "Well Done Ray!" Spatial disorientation is measured by tortuous movement paths during ambulation associated with poor compliance to automated prompts. The Fractal Dimension (Fractal D) is measured by GPS tracking devices on Ubiwatches, Smart Phones, and Wall Sensors that feed data back for data-mining to a central computer to measure compliance and non-compliance and to adjust treatment schedules, and messages.

Polytrauma and Quantum Storytelling overlap in TBI, for Teaching and Education Errorless Skinnerian negative and positive reinforcement, and extinction protocol in live-in VA Polytrauma Wards

Veteran-Ray (not his real name) is 24-year-old male with multiple brain trauma injuries from Hummer accident July 2008. He has moderate brain damage, with trouble remembering appointments and to take his meds. He wears an ultra-wideband transponder tag that racks his movements in the Polytrauma ward throughout the day. He receives behavioral prompting and reinforcement messages.

Take out the trash sequence

1. Go to trash can in kitchen
2. Remove trash bag from trash can
3. Go to main trash bin
4. Open main trash bin and put trash bag inside.

This is B.F. Skinner's errorless learning teaching machine. Its also an example of the QAUNTUM FRACTAL NARRATIVE, where human-machine interface, an iPhone and the location sensor on Ray's body, and the map of the Veterans Administration hospital Polytrauma Ward, are data-mining to give fewer and fewer words in each behavioral prompt, eg. 'Trash time' or 'did you forget something.'

MEDICATION EVENT SEQUENCE

Ray, is walking tortuously, a random path, circling back again. The Med Event Sequence kicks in, with these prompts on the Ubi-watch, some text, some vibrations, an occasional verbal command:

1. Go to nurse's Betty's station
2. Take your Pill Box

3. Ask Nurse Betty for 3 Zyprexa, 2 anti-depressants, and some Oxycodon, 2 Klonopin, 1 vitamin D
4. Close the Pill Box
5. Leave the Nurse's Station
6. Return to your Room
Ray ambulates the other direction.
7. Do you recall our room number?

The sensors on his body, his iPhone, on each wall, go to the program where the machine automatically fade the words out of the sentences in-order-to assess the systematic learning. Over the days, Ray gets fewer and fewer story cues, as he relearns each behavioral sequence in the Errorless Teaching and Learning Machine.

The Poly-Trauma Ward seems to me straight out of Jeff Noon's (1993) novel, *Vurt*. The Vurt-feather is polysemous, an hallucinogenic delicacy, a plume for fruiting, and a plume of smoke that has wild eddies, fissions, velocities, and spirals that interconnect Manchester, Vurts, meta-Vurts, and meta-meta-Vurts, and so on *ad infinitum* creating an ontologic worlds that shifts and morphs between linear-, cyclic-, spiral- and rhizomatic-antenarratives (Boje, 2014, Para). There are parallels between our quantum storytelling map of Poly-Trauma Ward and the Vurt Dystopia of Manchester, UK. The ensemble of characters are on a quest to rescue Scribble's sister, Desdemona from a Vurt realm. The group of Vurt characters interact with game master, who gives clues, hints, tips, and evasions (Para., Boje, 2014). In another Noon (1996) novel, *Automated Alice*, a different Teaching Machine, one where the material itself animates, forming strange assemblages that interact with Alice, and her robotic twin.

In Poly-Trauma Learning Machine, one learns to medicate, fill prescriptions first at Nurse's station then at the Wal-Mart. In the Vurt, one puts various kinds of feather into the mouth, and this sends one on a journey of fractal iterations into successive recursions of self-similarity (Boje, 2014). The meeting is Manchester UK, and the Vurt-heads are in search of a feather, Curious Yellow, that will release a comrade from the Vurt-realm (a bid trip). Beware of the Tapeworm feather, it is a really bad trip into complexity fractal structures. But our veteran Ray, is not sucking feathers, he is getting trained for a life of VA meds, to show up to VA appointments, and for fun to empty every trash bin to the main trash bin. Ray is inside a differ Vurt Fractal, the VA's addiction machine.

In the Vurt, the ensemble of characters search for the Curious Yellow feather, a fractal experience that is indeed rare. The journey is through the Vurt, to the meta-burt, and the meta-meta-vurt, an encounter with fractal story after fractal story, in the urban Manchester. By mistake, the smaller a Tapewormer feather (Noon, 1993: pp. 178-88). The Blue Lullaby feather, is a Vurt, of small escape, finding a Disney moment, but that happy escape from the inevitable plight of Ray in the Errorless Teaching Learning Skinner Machine.

The Rainbow feather offers hope, a flight into the upward spiral, the ascension into ever-wider swirls (as Heidegger describes them). The successive

iteration, the flow of self-similar loop after loop, layer after layer, riding out of the dysfunction. But of course, it is opposed by Curious Yellow, twirling toward the abyss, in a self-similarity fractal of violence, bullying, and Ray thought he was learning de-addiction, the extinction of his meds habit. Look at the quantum storytelling, the mapping: With each iteration Ray cannot return to a happier iteration, a peaceful harmonious loop is out of reach, and just gone, as the Teaching-Learning-Modern-Times machine reinforces, the stupidest functionalist narrative: meds for life, a life on meds.

The Vurt Strange Yellow feather is quite addictive, as addictive as the Spice feather in New Mexico. Ray, has been hooked on Spice (fake pot) when he could not get to his VA appointment, in El Paso, which by the way is the worst rated VA hospital in all the US, getting almost all 'F's' on its report card.

Ray's live-body touching, seeing the material things calls forth intentional antenarrative threads. The antenarrative fractal of BEFORE narrative, the self-perpetuating for of BEANEATH structure, the relations of the BETWEEN the worlds of story and narrative, the BETS on the arriving futures, and the BECOMING of emergence futures.

By 2014, the temporal-spatial prompting for TBI gets smart wristwatch interface using the new Samsung Galaxy Smart-watch and the Google Glass eyewear to administer persuasive applications of behavioral reminders in the GPS derived locations. The location-aware technologies have better GPS performance, lower implementation cost for this tracking system in the Polytrauma ward of the VA hospital. Veterans who sometimes miss or ignore prompting message the screen is delivering, but a change in veterans location can mean the vereran actually did respond to a behavioral prompt, an auditory cue message appears on screnn to improve response time. Multiple auditory cues can be annoying distraction to other veterans, each wearing wireless prompting devices, can provide bibrotactile rather than auditory or just visual alerts. If the target is a long distance awar, such as take pillbox to the nurse's station, despite best intentions of the veterans the short-term memory and location-spatial memory may not be there. This requires triggering a repetition of the behavioral prompts on the Smart-watch. Remote activation links the veterans to the measured spatial location and his or her daily schedule of tasks: empty trash, get meds, show up for therapy appointment, . Veterans may have Polytrauma, with co-occurring sensory loss that requires specialized prompts, in cases of visual impairment, hearing loss that change the aesthetics of the smart watch. Ubiwatch provides limited human-machine interaction capabilities, and need a richer processing and better user interface from wall-mounted displays deployed throughout the Polytrauma Ward. But Ubiwatch had a battery life of months, rather than the daily recharge cycle of Smartphones

The Wall-mounted screens everywhere in the Polytrauma ward remind the veteran with customized prompts of the location they are going to, the disply shows name of the veteran, and the Ubiwatch gives a custom signal alert message

The Ubiwatch is a cognitive prosthetic to prompt and remind and reinburse veteran to perform everyday taks, such as taking meds, keepiotn appointments, taking out the trash.

The Multifractal of Polytrauma Therapy according to a fractal model, viewed as a branching fractal, that simulates the movement of veteran along more or less tortuous paths in the Polytrauma word

Fractals and Multifractals of the socioeconomic organization of the Veterans Administration systemicity. By systemicity, I mean the unfinalized, unmerged, supposed to be deactivated, and all the coming soon, partially implemented pieces of systems, that together make up 'systemicity' (Boje, 2008, 2014). What can we do about the strange VURT, the TFW fractal virus, that runs epidemic throughout croporate America, government, public schools, and higher education? Are there any ways out of the Vurt-World?

What can be done about the TFW Fractal Infecting Organizations

Worley, Zardet, Bonnet, and Savall (2015) propose a more Agile Organization, as a way to defeat the ubiquitous TFW fractal virus. Henri Savall and Michel Peron (2015) put the socioeconomic approach in the context of a socially responsible capitalism.

Boje (2015) edited book looks at how the multifractal plays out in Tetranormalizing. Tetranormalizing is a verb means ways to create normalizing change practices to tame the overwhelm of external standards, a primary game rule in TFW fractal. Monological-Fractal Narratives reduce scale-complexity to search for ONE Universal Standard by focusing on their *ONE LOGIC*.

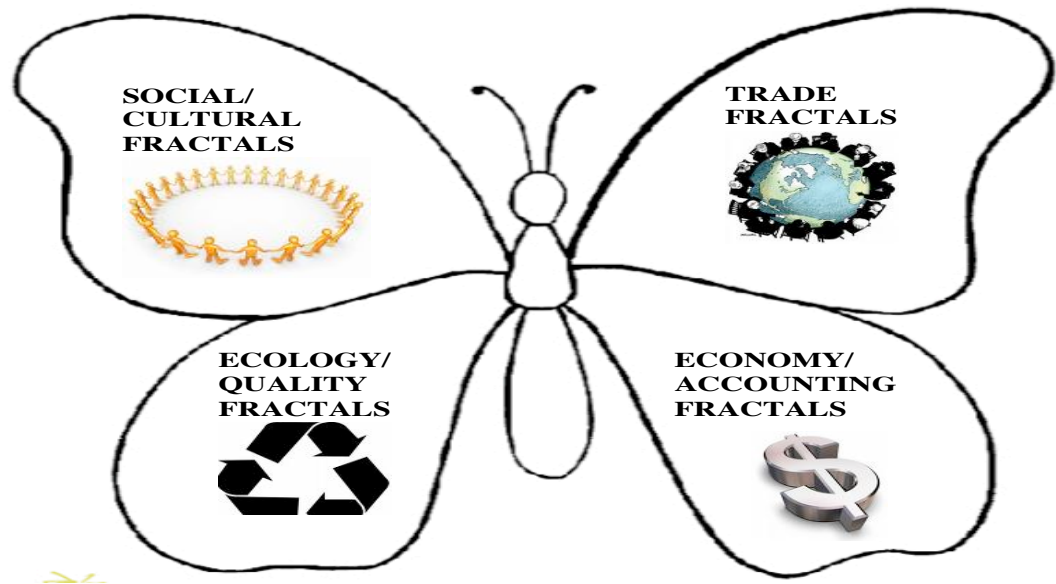


Figure 9 – Tetrannormalizing Butterfly (source: Boje, 2015).

Mono-Fractal Narratives by STANDARD-SETTING institutions, ISO, WTO, WB, NAFTA, etc.

Mandelbrot (1974) also focused on intermittent turbulence in self-similar cascades. Since then there have been more than a dozen multifractal studies in accounting, finance, and economics (Ausloos & Ivanova, 2002; Bershanskii, 2001; Gorazza & Malliaris, 2002; Fillol, 2003; Lux, 2003; Muzy, Sornette, Delour, & Arneodo, 2001; Schmitt, Schertzer, & Lovejoy, 2000; Turiel, Pérez-Vicente (2002); Xu & Gencay, 2003; Yalamova, 2003, 2006) (See Boje, 2015 for these references).

Conclusions

We can begin to think in terms of the scale of sociotechnical relations and of course in terms of Savall's interest in socioeconomic/sociotechnical relationships. Jenson looks at Danish health care as fractal social theorist.

Henri Savall (& Michel Peron 2015) continues to draw inspiration from German Bernacer's critique of speculative markets, how they suck the entrepreneurial life out of productive markets, and ultimately downgrade democratic practices of participation. Deleuzian rhizome-fractal posited by Hardt and Negri, the installation of WTO, IMF, ILO, and GATT were supposed to become the organization-network-regulatory-apparatus of world trade. However they underestimated the 'free market' 'anti-state' 'anti-regulation' ideology counter-fractal of great speculative debacles, from Enron and WorldCom to the Banking and

Foreclosure global crises ... (Williams, 2002: 119). The so-called 'free markets'-'anti-state'-'anti-regulation' has not improved either trade efficiency or tamed its rapacity and monopolizing spirit. It has only further skewed income distribution and wealth disparities globally.

As this standards-fractal becomes more mono mythic, it encounters a counter-narrative, the way the professoriate is becoming posthuman, cyborg-professor, doing distance education, the professor-self no more than the information-materiality of their Internet, Google Scholar, citation counts, etc. Fractal models of earth science (Ibañez, & De Alba, 2000; Korvin, 1992; Martin & Taguas, 1998; Taguas, Marti, & Perfect, 1999) are developing in a different direction than fractal frameworks of quality standards compliance. Quality standards-institutions are all about AUTOMATING COMPLIANCE, CONFORMITY & CONTROL. Warnecke (1993) '**Fractal Company**' is TOP-DOWN centralization into Production, planning & Control (PPC).

On the one hand is the ecosystem-fractal, which sustains human and non-human life. On the other, is the standards-fractal bringing quality-compliance-reporting into software algorithms, which do not account for fractals-riven by commercial exploitation (commodification) of earth that has accelerated with dire consequences that eco-scientists are calling global warming (Williams, 2002: 120).

- The mono-fractal is monological (single logic)
- Mono-Voiced (one-voice)
- Hierarchical (top-down only)
- DOMINANT NARRATIVES - keep reducing Living Story Web to more and more GENERAL SCALE MAGNIFICATION, until one MONOLOGIC REMAINS
- DOMINANT NARRATIVE fractal acts as a virus to keep reducing time to Linear, and the Retrospective (looking Backward)

- Multifractal is POLYPHONIC (many logics), POLYPHONIC (many voices), and Heterarchy (lateral down & up, & latticed) rather than Hierarchy
- It is RHIZOME (Deleuze & Guattari, 1987, ch 14).

- Definition: displays **non-linear** patterns of self-similarity across scales, MICRO to MACRO, across locations GLOBAL to LOCAL, across TIMES in flow of events, and embed in Materialites
- What we call SPACETIMEMATTERING scalability entanglements
- Multi-fractal interplay is the new **TAMARA-land**, the interweave of fractal narratives with webs of fractal stories, and the antenarrative fractal transformative connectivity between them.

- Living Stories connect to more and more logics in a WEB of relations, in many places, all in-the-middle of happening
- Upsurge out of SOCIOECONOMIC NORMS, from the people themselves, from the organizations, NOT outside....
- The LIVING STORY WEB Fractals are REDUCED by External FRACTAL NARRATIVE MONOLOGIC

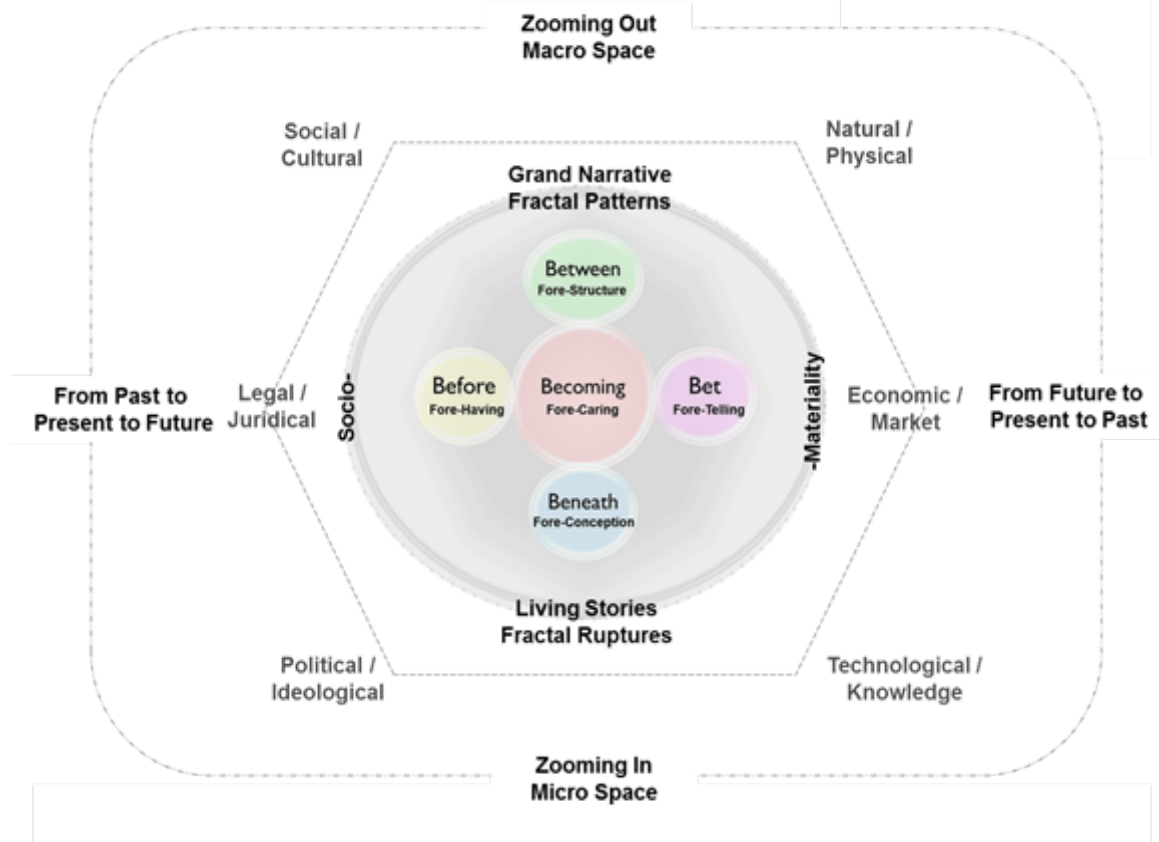


Figure 10: Antennarratives Before-Between-Beneath-Bet-Becoming in Socioeconomics of Quantum Storytelling Source: Svane & Boje, 2015

- How to change mono-fractal organizations.
- **First Change Solution: THE CASCADE – Each recurring choice can cascade into fractal scalability, can escalate, turn multifractal... Therefore the linear-fractal is not acceptable Find the Power Laws in operation between Ecosystem and Quality standard-fractals and norm-fractals/**
 - **Second Change Solution: All four Tetranormalizing Wings are turning multifractal. Use SEAM to develop attunement by successive projects that brings momentum**
 - **Third Change Solution: enact Socioeconomic Fractal Norms of Practice**
 - **Fourth Change Solution: Refractalize by making small changes**
 - **Fifth Change Solution: ‘Timing is Everything.’**
 - **Sixth Change Solution: No More Silos!**

Instead of separation of SOCIAL and ECONOMIC, Henri Savall and Veronique Zardet developed Tetranormalizing to bringing about socioeconomic NORMS that refractalize the wings together across scalabilities.

Move to norms of agreed upon negotiated practices instead of relying on EXTERNAL STANDARD IMPOSERS, competing to bully everyone

. Facebook managed its refractionizing pattern, waiting for the first half-million users, then allowed the venture capitalists into the game, and went to the next level of expansion

To refractalize means to 'defractalize the process as it was done before' (Boje, 2015: 17).

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