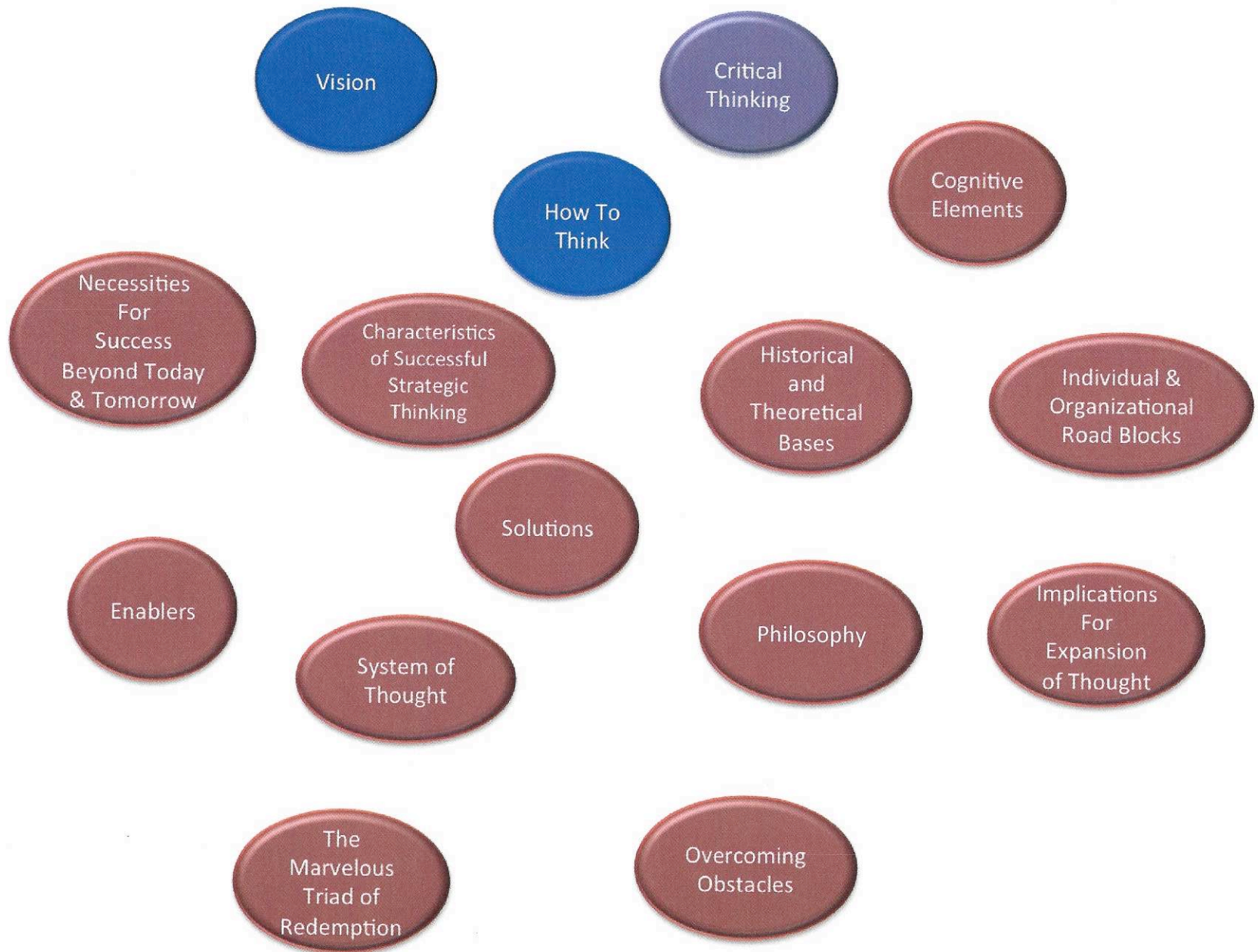


Thinking Strategically – ‘Critical Thinking’

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A Holistic View of Thinking Strategically



Elements -- Critical Thinking

Elements -- Critical Thinking For Thinking Strategically

1. Deep think
2. Nonlinearity & important characteristics
3. Think like adversary, populace, et al.
4. Causes, links, and effects
5. Relational/Relative action outcomes
6. Cultural drivers & shapers
7. Facts, objectivity, subjectivity
8. Chance
9. Errors in logic & bias
10. Dialectic
11. Holistic thinking & planning
12. Introspection

Definition – Critical Thinking

- **An *intellectual process* that:**
 - Examines **assumptions**;
 - Discerns hidden **values & relationships**;
 - Evaluates **evidence**;
 - Assesses **conclusions** -- David G. Myers, *Exploring Psychology*
 - What is an assumption?
 - What is a value?
 - What is a relationship?
 - What is evidence?
 - What is a fact?
 - Importance of fact to evidence?
 - What is a conclusion?

Definition -- Critical Thinking

More Definitions

- **Assumption** -- *A supposition on the current situation or a presupposition on the future course of events, either or both assumed to be true in the absence of positive proof, necessary to enable the commander in the process of planning to complete an estimate of the situation and make a decision on the course of action.*
- **Value** -- moral principle and belief or accepted standard of a person or social group.
- **Evidence** -- that which tends to prove or disprove something; ground for belief; proof -- Dictionary.com
- **Conclusion** -- final division or section of analysis and synthesis.
 - A conclusion will include, as a minimum: 1) a summary of the situation, the context surrounding and influencing the situation at hand, and the most important points under consideration, 2) a statement of conclusion and degree of confidence in the conclusion, and 3) a cogent recommendation.

Unpacking Critical Thinking

- Thinking critically – to *purposefully exercise* one's power of reason as by conceiving *ideas*, drawing *inferences*, and using *judgment* as to **quality**, **truth**, **fact**, **meaning**, **argumentation**, **relationships**, and **implications** of a problem's solutions, another's thoughts, books, art, conclusions, what could be, and so forth.

A Few More Thoughts re Critical Thinking

- **Critical thinking, as we have posited:**
 - **Is important. Why?**
 - **These 12 elements permeate entire concept**
 - **Essential for thinking strategically – individually & organizationally**
 - **Basis of our context and construct of conflict in the 21st century**
 - **Means for creativity & examining alternatives**
 - **Brings forth issue -- Objectivity vs. Subjectivity – is this important?**
 - **Basis of friction, black swan events and their stepchild – agility**
 - **‘A way’ to discipline and focus our thinking about thinking re thinking strategically – we start w/critical thinking schema**
 - **Provides a framework or pegboard by which we hang and connect our thoughts and concepts.**

Deep Think

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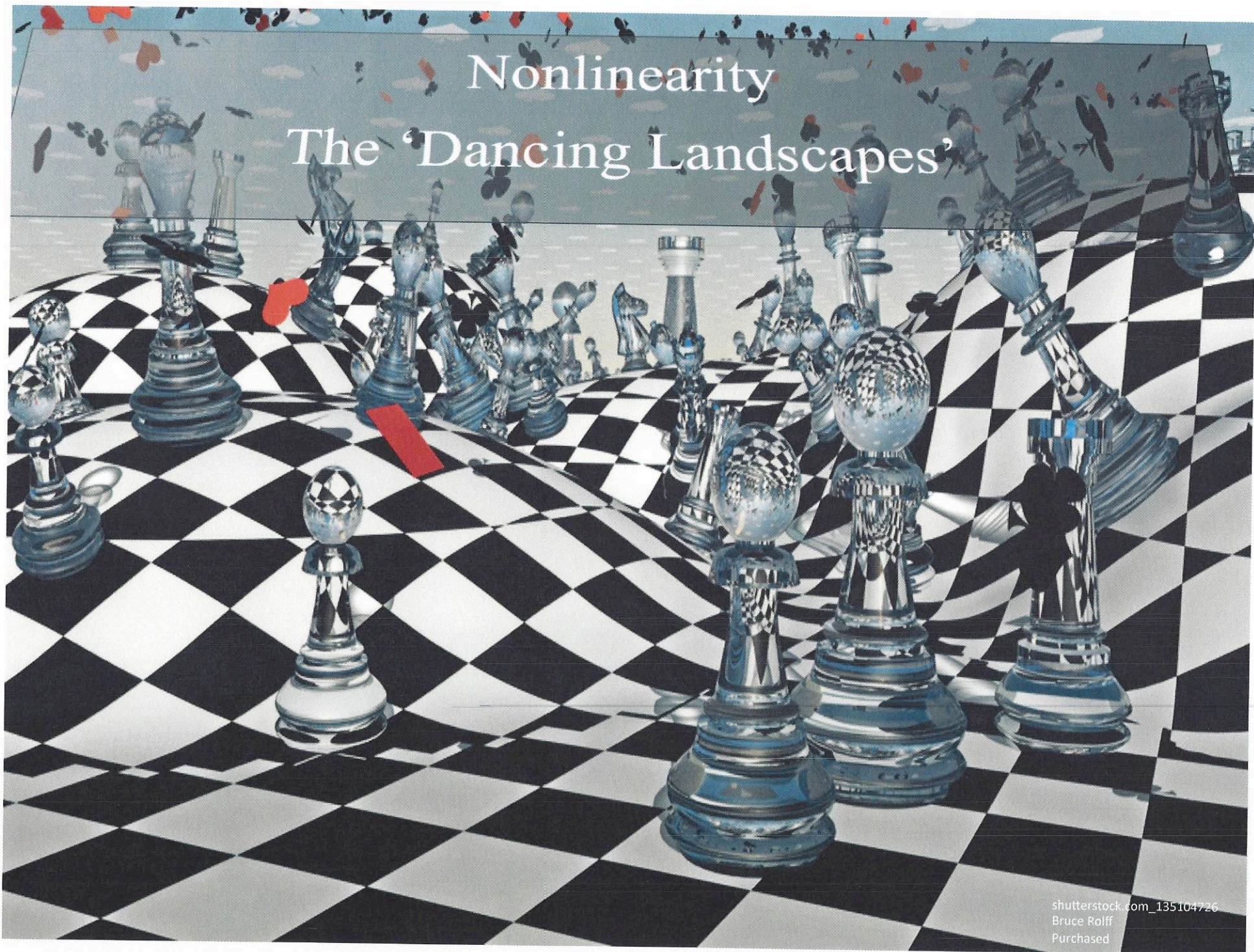
Some Thoughts About Deep Think

- **What is deep think?**
 - Why important for thinking strategically?
- **Relationship – deep think and Robert Pirsig’s ‘high country’ in *Zen and the Art of Motorcycle Maintenance*.**
 - We all have our high country.
 - Organizations have to resource & thought leaders stimulate and emphasize ‘deep think’ and ‘high country.’
- **Do you engage in deep think?**
 - If the answer is no, then I ask, why not?

Some Considerations About Deep Think

- **Some considerations:**
 - **What inhibits or stimulates deep thinking?**
 - Thinking *should be* like walking up and down steep stairs w/o bannisters. *Wheatley – Time To Think*
 - Deep think though takes definite effort/purpose.
 - **Deep thinking should not be just about what happened in the past or the present – it should also *involve the future.***
 - **Our considerations about the future will always be subject to risk, uncertainty, and the unwanted imposition of 'chance.'**

Nonlinearity The 'Dancing Landscapes'



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Bruce Rolff
Purchased

Nonlinearity

- **Definition** -- The study of situations where, in a general sense, *cause and effect are not proportional to each other*.
 - If the measure of what is considered to be the cause is doubled, the measure of its effect is not simply twice as large.
 - Many examples have been known in physics for a long time, and they seemed well understood.
 - But, this lack of proportionality in some of the basic laws of physics often leads to unexpected complications, if not to outright contradictions.
- **Note** -- linearity and nonlinearity are a whole – they interact w/one another.
 - In a nonlinear context, *everything is moving and changing* thus causing uncertainty, risk, surprise, and friction.
- **Importance** – context; outcomes; actions of adversaries & competitors; vagaries in our thinking, planning, actions, assessments, and adaptation.

Deep Think Characteristics of Nonlinearity

- | | |
|---|--|
| <ul style="list-style-type: none">✓ Constant movement, energy, and change – turbulence<ul style="list-style-type: none">• Whole > sum of parts✓ Untidy rules<ul style="list-style-type: none">• Presence & influence-CAS• Presence, influence-aggregates & aggregations✓ Presence, influence-sensitive variables✓ Difficulty in discerning causes for effects<ul style="list-style-type: none">• Parts of wholes non-additive• Invasiveness of Black Swans | <ul style="list-style-type: none">✓ Importance - co-evolution✓ Importance - feedback & adaptation<ul style="list-style-type: none">• Difficulty in prediction✓ Importance of context<ul style="list-style-type: none">• Environ.-chaos, turbulence• Small inputs can lead to large outputs• Sensitivity of initial conditions• Influence – randomness |
|---|--|

Comparison & Contrast – Linear & Nonlinear

• Linear

- Small inputs cause small outputs, In fact, output is proportional to input; if double input, will double output.
- Additive
- Whole is = to the sum of the parts
- Prediction is generally easy & accurate
- Individual variables typically not very important
- Order is the norm and is easily discerned
- Causes and effects easily identified.
- Generally, little or no feedback.
- Evolution is isolated and not interdependent.
- Relationships:
 - Effect proportional to cause
 - Solvable
 - Pieces add up to whole
 - Rules stay the same

• Nonlinear

- Small inputs can cause large outputs.
- Whole often greater than sum of parts
 - Non-additive
- Prediction is nearly impossible
- Context important – chaos & turbulence
- Individual variables important
 - Sensitive variables influential
- Specter of chaos
- Cause/effect relationships difficult to determine.
- Feedback.
- Presence & influence of CAS & aggregates
- Relationships:
 - Untidy, changing rules
 - Influence of CAS models

Think Like The Adversary et al.

Our Adversaries/Competitors

- **March to the beat of their own drums**
 - **Have a distinct way of perceiving, thinking, planning, deciding, acting, assessing, evaluating, and adapting.**
- **View us (their foe) through their eyes**
 - **We must look at the world & situation through their eyes.**
- **Apperception, traditions, myth, history, education, customs, social mores, etc.**
 - **Important to this kind of critical thinking.**

Our Adversaries/Competitors

- **Duality** – pg. 77 Clausewitz's *On War*
 - Certainty/uncertainty
 - Advantage/disadvantage
 - Chance
 - Friction
- **Sun Tzu** – *The Art of War*
- **Examples:**
 - Napoleon – Austerlitz, Moravia – 1805 – Russian Czar Alexander
 - Scipio Africanus – Ilipa, Spain – 206 BC -- Hasdrubal

'How To Think' -- Adversary Strategy Thought Model

- | | |
|--|--|
| <ul style="list-style-type: none">• Strategic aim• Objectives• Resources• Constraints• Strategy• Tactics• Analysis of 'Will'• Adaptation & intel• Duality• Cultural drivers & shapers | <ul style="list-style-type: none">• Adversary thought processes• Advantages/disadvantages re operational context<ul style="list-style-type: none">– Them & their opponents• Advantages/disadvantages – other, e.g., ideology, religion• Logic errors & biases• Inner circle• Opponent's perceptions of context & pressures |
|--|--|

Chance, Will, Duality, Logic & Bias Errors