Building Anti-Fragile Organisations

TONY BENDELL, SERVICES LIMITED UK AND THE ANTI-FRAGILITY ACADEMY

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Anti-Fragility & Its Relationship To Organisational Excellence

- Which Includes Which?
- Is Anti-Fragility Anything New?
- What is it?

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Anti-Fragility & Its Relationship To Organisational Excellence

- Which Includes Which?
- Is Anti-Fragility Anything New?
- What is it?
- Are you Anti-Fragile?

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The Ideas of Fragility, Robustness & Anti-Fragility
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- Fragile - Fails Easily / Doesn't Withstand Stress

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The Ideas of Fragility, Robustness & Anti-Fragility

- Fragile - Fails Easily / Doesn't Withstand Stress
- Robust – Can Withstand Stress ... Up To a Limit

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The Ideas of Fragility, Robustness & Anti-Fragility

- Fragile - Fails Easily / Doesn't Withstand Stress
- Robust – Can Withstand Stress ... Up To a Limit
- Anti-Fragile – Gets Stronger From Being Stressed

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Organisational Failures – The Failure of Management & Management Systems

- Organisational failures are now commonplace, including those of iconic firms.
- Conventional management and management systems have proved inadequate to protect both private and public sector organisations from catastrophic incidents, adverse publicity and failure.
- Fragility associated with:
  - Volatile Environment
  - Weaknesses in Systems & Processes
  - Weaknesses in Behaviours & Management
  - Rush to Efficiency

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Failure/Our Icons Destroyed

A look at bank scandals since the financial crisis

BP welcomes US court of appeal ruling on Gulf of Mexico oil spill payouts

BP may face $16bn in fines for gross negligence as federal trial resumes

BP returns to court: Horizon spill as £

BP seeks to have settlement provision

Morgan Stanely & Co.

THE WALL STREET JOURNAL

Goldman, Morgan scrap Wall Street model, become banks in bid to ride out crisis

The Anti-Fragility Academy

Corporate Accounting Scandals of All Time

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The Fragility of Human Organisations

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Is it Getting Worse?

- Professor Richard Foster (Yale University)
  - the average lifespan of a company listed in the Standard and Poor’s 500 index (S&P) of leading US companies has decreased by more than 50 years in the last century, from 67 years in the 1920s to just 15 years today.
  - by 2020, more than three-quarters of the S&P 500 will be companies ‘that we have not heard of yet’.
- There is no proof that age makes a company any more profitable than younger companies;
  - If the S&P 500 were made up of only the companies that were part of the index in 1957, overall performance would be some 20 per cent worse.
- The immediate causes of failure are numerous; changing markets, simple insolvency, corporate crime, inability to adapt.

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The Problem of Risk Management

- Numerous repeated and well publicised failures of Risk Analysis and Management
- Inherent Flaw in the Approach: Much of Risk Analysis and Management as we know it today is part of the problem, not of the solution
- **Reactive** Approach – Uncertainty & Risks **will** occur; we need to **predict** & reduce/contain it.
  - We have to be able to **conceive the risk**.
- Ignores aspects of the internal and external conditions in the system, including its **complexity** and **loading**, & assumes **stability**.
- Assumes **full timely information, critical awareness** & **senior management attention**
- Assumes no “**Black Swans**”

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Black Swans

- Rare high impact `unpredictable` events
- Currently little theory
- Extreme cases of Expectation Influenced Probability
  - Where there is No Expectation

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Enterprise Risk Management

- Improved Organisational Governance & A New Business School Discipline
- Great Potential, But...
  - In its infancy
  - Not Being Used, Not Being Used Well
  - Education & Governance Issues
  - Risk silos

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The Desire for Robust Systems

➢ Whilst they exist to protect people, organisations and communities, human systems & organisations are naturally fragile.

➢ They fail individual people & stakeholders, and sometimes they fail systematically & sometimes dramatically.

➢ Weaknesses are caused by people, by processes and by environment excess.

➢ We try to make such systems robust, but how can we establish that they are robust enough since a robust system just waits for something more powerful than it to overcome it? Like the Thames Barrier the robust is always waiting for a wave that is bigger than it, that will destroy it.

➢ Robustness may imply Rigidity

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The Problems with Robustness
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The Problems with Robustness

There is no practical level of robustness that is `Strong enough`

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The Problems with Robustness

Robust systems don’t themselves get better.

There is no practical level of robustness that is `Strong enough`.

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Fragility & Organisations

- Forensic Accounting is a Safeguard, But..
- Can be a bit late..
- The Whole Governance Issue
  - Shortcomings of Current Practice
  - Different Perspectives on Risk & ‘Skin in the Game’
  - Board Responsibility, Understanding, Education, Knowledge & Access to Information
- The Tip of the Iceberg

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Where Fragility Exists

- At all Levels/Layers...
  - Strategy & Governance
  - Operations, Processes & Supply Chain
  - People & Culture
  - Information & Technology
  - Markets, Products & Services
- Global & Local Fragility/Macro & Micro

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Nature Got There First

- Natural systems are Anti-Fragile
- Until now, we have only focused on making human systems Robust.
- But now we know better!

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Some Sources of Anti-Fragility in Organisations

- Learning
- Awareness of environment & internal conditions
- Information systems
- The ability to take decisions & act
- Flexibility & Agility
- Good decision making
- Shared & spread risk
- Anti-Fragility (or not) is defined by the Organisational Governance, Strategy, Structure and Systems, its People, Relationships and its Culture.
- We can then Build Anti-Fragility (or not) into our products & services, use of information and technology base.

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Anti-Fragility Features of Organisations and Systems

- Safeguarding Systems
  - All organisational and system **information gathering and feedback loops**, that potentially use current performance as the basis for control and/or change, represent **Anti-Fragility Features**.

- Strategy Review; Risk Management; Budgetary Control; Internal & External Audit; Quality Control; ISO9001, Quality Assurance; Developmental and Evaluative Performance Appraisals; HSE Assurance; Continuous Improvement, Kaizan, Six Sigma, Lean Improvement, Agile Deployment, & Organisational Assessment against the EFQM Excellence Model.

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But the limitations are in how these Safeguarding Systems are implemented – ‘Second Level Fragility’

- Often designed for Robustness, not Anti-Fragility
- Incomplete information flow
- Assume some stability & no “Black Swans”
- Often delegated to middle management, formalised and standardised, so in danger of becoming compliance-driven rituals, with incomplete information; with most importance being given to the integrity of the paper trail for auditing purposes, & inadequate senior management attention.

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A key part of the Anti-Fragile mechanism in all these cases is **the human role**.

Risk Management is **another key Anti-Fragility Feature** of our organisations and systems.

- But again, this Anti-Fragility Feature **is itself often implemented in a Fragile way**. (Second Level Fragility)

Lack of a holistic approach to **Fragility Minimisation and Management** in current practice in organisational or system design and operation.

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Ten Common Pitfalls of Fragile Organisations

1. Not knowing that they are fragile.
2. Not being joined up.
3. Knowing, not doing
5. Too much emphasis on money and short-termism.

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Ten Common Pitfalls of Fragile Organisations

6. Bureaucracy and emphasis on control.
8. Weak processes or an emphasis on initiatives.

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A Basic Fragility Test for Your Organisation
Score out of 100; (0-10 : 0=maximum optimisation)

- How good is our current Approach? (0-10)
- Do we include deliberate Diversity of Approach and Deployment? (0-10)
- How Aware are we of our Environment? (0-10)
- Do we Learn? (0-10)
- Do we Implement what we Learn? (0-10)
- Do we Learn fast? (0-10)
- Do we have the Infrastructure to Learn? (0-10)
- Do we Evolve? (0-10)
- Do we have the Infrastructure to Evolve? (0-10)
- How Optimised are Our Processes? (0=highly optimised)

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Ten Ways An Organisation Can Become More Anti-Fragile

1. Don’t think you are there- Realise Never Completely get there/never completely not there.
2. Be aware, scan the external & internal environment, risks, scenarios & possible black swans.
3. Be joined up & nimble, keep learning, apply.
4. Avoid rigidity, ultra efficiency & relying on robustness.
5. Don’t automate, engage.
6. Reduce the fragility of anti-fragile systems.
7. Use diversity.
8. Apply precautionary principles.
9. Fail often & small.
10. Stress test.

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Anti-Fragility as an Holistic Theory of the Firm

- No single current Business School Discipline unifies our view of the Organisation
- Also tells us that a naive focus on Optimising Efficiency, or even Effectiveness, is Wrong
- Unifies and provides both structure around, and safeguards in applying,
  - Excellence,
  - Change, improvement & quality approaches such as Lean, Six Sigma, EFQM Excellence Model, Benchmarking, QA etc.

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What Should We Optimise?

1. Efficiency maximisation, Cost minimisation, throughput, usage, weighted EFQM Excellence Model criteria, ....

...... or anti-fragility, with a side constraint of a minimum efficiency level, or profit etc.?

- If we apply Lean or Six Sigma to remove non-value adding activities or minimise throughput time or cost, or maximise utilisation, without fully considering the impact on system or organisational fragility, this may result in “hard-wired” inflexible inagile systems, or optimally utilised heavily loaded systems that are so stretched to exploit their maximum capacity that they cannot cope with any disruptions or further load increases, and hence may fail catastrophically.

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We have been Optimising the Wrong Things....
2. **Reliance on expectations, when minimum more appropriate**

- “events, dear boy, events”; chance environmental peaks may kill system with given fragility, so expectation optimisation inappropriate, & its beneficial to build in diversity.

- It is difficult to rely on cost for the impact of a hazard in creating organisational fragility, as this will be at best an expectation, not reflecting the worst case due to environmental circumstances. For example, whilst we can use total cost of stockholding and stock-outs combined to minimise total cost and identify optimum stockholding, we cannot sensibly calculate the cost of organisational fragility such a stockout might lead to, since it will depend on the environmental circumstances. In some circumstances, it may kill the organisation, in others it will not; cost is therefore not a good proxy for fragility measurement.

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Every day organisations fail, unnecessarily, with massive financial and human cost. We need to change. Anti-Fragility is the most important potential breakthrough in business thinking in my career. It provides a language and unification for all of the improvement and productivity methodologies I have been assisting companies with for over 20 years. It makes us realise that our current optimisation criteria are wrong and efficiency, and even effectiveness, are not such a good idea. It unifies our business model, giving a new coherence to the disjoint functional specialisms in our business schools. Go out and tell people, they need to know what you know..and soon.

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Any Questions

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Any Questions?........ Or Debate?

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