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CREATE CHANGE

What Do We Really Know About HROs?

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This Presentation

- ❑ The resources sector is being challenged to, in the words of the *Review of All Fatal Accidents in Queensland Mines and Quarries*, ‘adopt the principles of High Reliability Organisational theory’.

- ❑ But what, exactly, does this mean?
 - ❖ What does HRO theory encompass?
 - ❖ What evidence is it based on?
 - ❖ What are the strengths and the limitations of the existing research?
 - ❖ How can organisations use this theory in practical ways to achieve change?

- ❑ HRO research has been conducted for almost 35 years. This presentation summarises **what we know**, and **what we don’t know** as a result.



We Need The Right Kind Of Lens....

- ❑ HRO theory is not settled, or complete.
- ❑ Much of it is untested, or tested in very specific circumstances.
- ❑ There remains substantive disagreement among researchers about key parts of the theory.
- ❑ There is no proven 'off the shelf' product that will take an organisation currently experiencing low, or lower than desirable, levels of reliability to very high reliability.
- ❑ As one researcher has recently observed – 'a three-letter acronym like HRO, if used without careful qualifications, risks conveying a misleading picture' about the solidity of this concept.
- ❑ **BUT.....nearly 35 years of research can point us in some useful directions...**



In The Beginning...

1980s University of California-Berkeley research –

- ❑ Focussed on 3 US organisations deemed to be ‘high risk’ but seen as having ‘operated nearly “error free” for long periods of time – the Federal Aviation Administration’s air traffic control system, an electricity company, and nuclear aircraft carriers.
- ❑ Researchers **designated** these entities ‘high reliability organisations’.
- ❑ Single slice in time – no examination of how entities had become ‘highly reliable’.
- ❑ Attempt to work out what made these organisations different from others – focus on organisational structure and processes – rather than to distil high reliability principles that could apply to all organisations.
- ❑ **Being designated an HRO, or not, directly related to the types of activities the organisation was involved in. NOT a club anyone could join!**

Six - Tentative - Actions

Weigh up the costs of safeguards vs accidents

When critical systems are tightly coupled have compensating strategies

‘Look carefully at interdependencies’ and develop special ways of managing them

Recognise the cost of redundancy and training is lower than the cost of accident aftermath.

Make sure your decision making strategies are appropriate.

Analyse the components of high reliability cultures.

Phase 2

Seeing high reliability in terms of collective mindfulness –

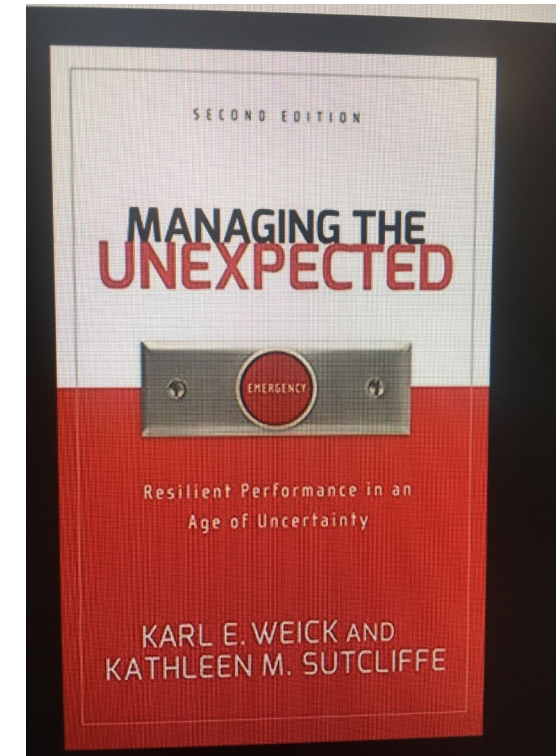
- ❑ 1993 – Weick and Roberts – study of how participants on aircraft carrier flight decks interrelated with each other.
- ❑ Study theorised that where participants in a group could:
 - ❖ See their own activities as key components of a whole;
 - ❖ Share information for the common good
 - ❖ Have interactions that were ‘heedful’ and based on careThere would be a ‘greater capacity to comprehend unexpected events and respond to small errors’.
- ❑ And an emerging view that higher reliability requires **a different kind of leadership**.



A Developed Theory

2001 - Managing the Unexpected, Resilient Performance in an Age of Uncertainty, Weick and Sutcliffe

- ❑ Seminal work – selections from it frequently repeated, BUT overall, this book is often misunderstood.
- ❑ References the response to the Cerro Grande wildfire in New Mexico – but not based on a detailed assessment of any one organisation's current state, or progression.
- ❑ Core conclusion: HROS are **'organisations that think and act differently'**.



Understanding the Five Principles....

- Weick and Sutcliffe - HROs 'create a mindful infrastructure that **continually does ALL of the following**':

Principle	Scope
Preoccupation with Failure	Not Only About Reporting. HROs constantly 'articulate the mistakes they don't want to make and assess the likelihood of strategies triggering these mistakes' AND 're-state goals in the form of mistakes that must not occur'.
Resists oversimplification	Note: You can simplify, but do it conscious of the implications. Think about the consequences first!
Remains sensitive to operations	Not only about listening to the workforce. Understand interdependencies, communicate better, and reduce silos. Be clear about how the social organism that is your organisation actually works!
Maintains capabilities for resilience	Both pre, and post, errors.
Takes advantage of shifting locations of expertise	The most useful person is able to contribute at any given point regardless of status.

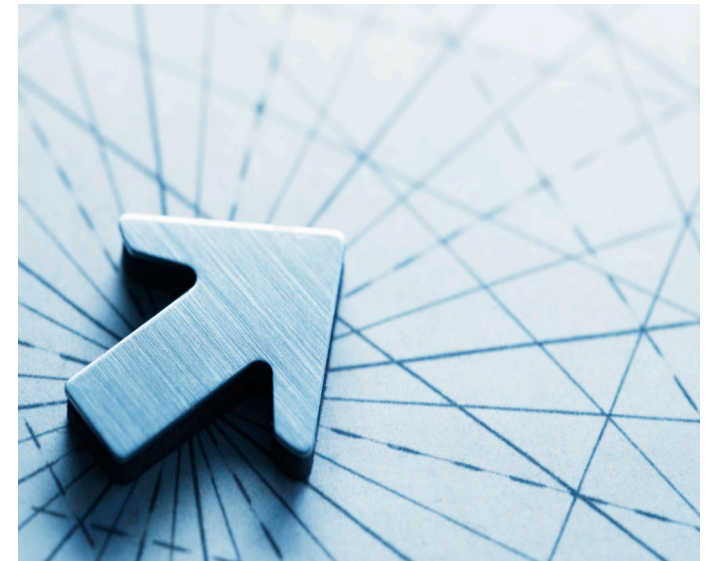
In the past 20 years....

- ❑ >90% of all HRO research papers have concentrated on healthcare.
- ❑ Most of them focus on developing high reliability organisational **theory**.
- ❑ A 2021 study – which identified 1500 HRO Research papers which dealt, in some way, with the HRO implementation, found only 6 which ‘involved the change process from reliability to high reliability’.
- ❑ While there are a handful of HRO measurement and implementation frameworks these are mostly untested – and the efficacy of some is, highly, dubious.

So what can the existing research really tell us???

20 Year Research Themes

- ❑ Researchers are now less convinced that there is an 'ideal type' organisation whose characteristics can simply be copied.
- ❑ Those who have built on the W&S Five Principles have explored, in more detail, the importance of trust, extensive communication within organisations, shared senses of purpose at all levels, and explicit, and genuine, leadership commitment to the goal of higher reliability.
- ❑ Researchers generally agree that before you can 'intervene' for higher reliability you need to understand how your organisation currently works – **there must be a baseline**. What leadership behaviours, communications flows, and mental models are already in place?
- ❑ For some, 'HRO' – which is seen as an ambiguous term – should be replaced with 'RSO' – reliability seeking organisations.
- ❑ Increasingly, the way leaders lead is seen as crucial.



Areas in Dispute

So far, researchers are yet to agree on:

- ❑ The role regulators can or should play in fostering higher reliability.
- ❑ The relationship between innovation and HRO theory.
- ❑ The pathway from lesser to higher reliability.
- ❑ Whether HRO theory can appropriately be applied to any kind of organisational activity, in any kind of organisation.

These are some of the issues that we'll be exploring later in this Forum.



Shedding Some Light

2019 Review examined 20 accounts of attempts to implement higher reliability organisational theories in the health sector.... & found....

Positively

- ❑ Organisations who used 'HRO' implementation frameworks focussed on leadership development and change; and establishing a 'culture of trust'; reported 'significant reductions in serious safety events'.
- ❑ The Joint Commission on Accreditation of Health Care Organisations tool (OroTM) for measuring organisational reliability is practical, and useful.

Less Positively?

- ❑ The frameworks and steps used by individual organisations varied.
- ❑ The OroTM tool was not publicly accessible.
- ❑ The 'strength of the evidence' linking HRO initiatives to the improved outcomes experienced was 'low' – given other changes occurring in the same timeframe.



Observations from 31 RSOs

US industry representatives who have taken the Weick and Sutcliffe Five Principles, and tried to apply them say:

- ❑ Leaders must choose higher reliability as the preeminent goal – that will change focus, and behaviours.
- ❑ There must be an organisation-wide shared vision about higher reliability, and a recognition that everyone contributes to this outcome.
- ❑ There must be genuine appreciation that ‘the problem does not lie with the errors of individuals but with collectives of people’.
- ❑ Managers need to see their jobs differently – not to manage tasks but to understand how organisations, not just their own, work; and to develop arrangements that enable people to excel.
- ❑ There is value in having a separate group, trained in organisational science, whose job it is to monitor how the organisation works, and to design changes – group membership should be a badge of honour.

Sandfields Secondary School Evaluation

Sandfields Secondary School slated for closure until it implemented what was described as the **‘twelve** key characteristics of HROs’.

The Sandfields 12, was the Weick and Sutcliffe 5 (with modifications), combined with:

- ❖ Collective belief that failure would be a disaster.
- ❖ Agreement on a limited number of priorities and a staged approach.
- ❖ Encouragement to all to identify flaws in SOPs, and explicit honouring of ‘flaw finders’.
- ❖ Recognition that ‘in HROs, short term efficiency takes a back seat to very high reliability’.
- ❖ Realisation success would not be achieved by implementing less than the full 12 characteristics.

Sandfields’ progress and performance was tracked for nearly 11 years. **There was a transformation over that period.**



Where To From Here?

If HRO research so far falls short of providing any packaged solutions; it does provide a stepping off/stepping up point.

Thanks to our generous sponsors we've asked academics from diverse backgrounds to:

- Use the existing HRO research as a platform.**
- Apply their own expertise to the broad question of how organisations can achieve 'high reliability'.**
- Provide practical suggestions our Forum participants can consider.**





Questions