For the Love of Zero

Human Fallibility and Risk

Dr Robert Long

Real Risk

Human Discerning and Risk

Dr Robert Long

Risk is about what is uncertain. Humans don’t know the future and so the challenge for humans is to discern risk with wisdom in order to live. Real Risk, Human Discerning and Risk is Dr Long’s third book in the series on risk. This book is about the attribution of risk, the realities of risk, disconnectedness from risk and the wisdom of engagement with risk. Whilst there is much written about regulation and the assessment of risk, there is precious little discussion about discerning risk. Whilst so many advocate the aversion of risk as an intelligent course of action, the reverse side of this decision advocates non-learning and the ‘dumbing down’ of the risk intelligence of the population.

The idea that risk can be assessed objectively ignores human subjective participation in risk. Risk is a social activity and is not independent of human bias and social arrangements. It is because risk is social and subjective that embracing risk requires social discerning and wisdom, these come through viewing risk within a community context. The more we try to regulate risk without regard to community, ethics and learning, the more we get into hot water. Two stories illustrate the problem.

In 2012 the UK HSE launched an independent panel called ‘the Myth Busters Challenge Panel’ (Myth Squad). One month after the establishment of the Myth Squad the media and politicians were calling for the squad to be disbanded. The problem is simply this: tackling cultural problems with bureaucratic solutions perpetuates more complex problems. This kind of thinking sees every problem as a nail and, the only solution as a hammer. In one of the first cases referred to the Myth Squad was a request for a determination whether firemen should venture in to a pond to rescue a trapped seagull. The Myth Squad reply was that it would take 5 days to deliberate on the case and provide a ruling.

In November 2013 the ACT Government in Australia introduced the idea of regulating fundraising activities by requiring ‘food safety supervisors’ (http://www.canberratimes.com.au/act-news/forking-out-cash-to-supervise-kids-bbqs-dont-be-a-silly-sausage-20131104-2ww10.html). Volunteers would be required to pay $150 to be trained as a food safety advisor. Fortunately, after much community outrage the idea was dropped. Unfortunately the regulators continue to entrench the idea that risk is to be feared and only trained experts can discern and manage risk.

The fundamental proposition of this book is that people are more disconnected from risk than ever before. The best way to become educated and discerning in risk is to embrace it. Risk aversion drives risk ignorance, risk engagement drives risk intelligence and, because of this continuing risk disconnectedness people have become less discerning about risk. The problem with this trend is that it is also matched by a decline in creativity, ingenuity, adventure, learning, imagination and innovation.
Previous Books in the Series
## Contents

Previous Books in the Series .................................................................................................................. ii
Table of Illustrations .............................................................................................................................. viii
Foreword ..................................................................................................................................................... ix
Special Thanks ......................................................................................................................................... x
With Thanks to Helen .................................................................................................................................. xi
About the Book Logo ................................................................................................................................. xi
A Special Note on Discerning ................................................................................................................... xii
A Special Note on Wisdom ......................................................................................................................... xii
Glossary ..................................................................................................................................................... xiii
What This Book Is About ........................................................................................................................... xiv
Structure and Use of the Book .................................................................................................................... xvii
A Review of Ideas in Book One - Risk Makes Sense ............................................................................... xviii
A Review of Ideas in Book Two - For the Love of Zero .......................................................................... xx

### SECTION ONE - The need for discerning in risk

#### Chapter 1 - The need for discerning in risk

- Differentiating and Discernment ........................................................................................................ 3
- Visiting the Zarsaberries ...................................................................................................................... 5
- Chasing the Lolly Man .......................................................................................................................... 8
- More Bricks and Mortar for the Amphitheatre of Denial of Discernment ...................................... 10
- Attribution and Fundamental Attribution Error ................................................................................ 12
- Dissonance at Jonestown ................................................................................................................... 14
- Discerning The Secret ......................................................................................................................... 17
- Dumb Ways to Die: A Strange Sense of Success ............................................................................. 17
- Discerning Real Risk - Ten Themes .................................................................................................. 19
- Workshop Questions ............................................................................................................................ 22
- Transition ............................................................................................................................................ 23

#### Chapter 2 - Realities of risk

- Billy Carts ............................................................................................................................................. 26
- My Fort is Better than Your Fort ......................................................................................................... 28
- Experts Warn about ‘Mollycoddling’ Children .................................................................................. 29
- Kambah and the Adventure Playground ............................................................................................ 30
- Don't Cry Over Sour Milk .................................................................................................................. 33
- Alexander Machonichie Centre, A Lesson in Motivation and Risk .................................................... 34
- What Does Self Harm Teach us About Risk ? ................................................................................ 36
- A Case of Desensitisation - What Would You Do? ........................................................................ 37
- Autopilot, Habit, Perception and Risk ............................................................................................... 39
- What are the Characteristics of Risk? ............................................................................................... 40
- Phobias and Risk .................................................................................................................................. 51
Table of Illustrations

<table>
<thead>
<tr>
<th>Figure Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>The Human Dimensions Risk Maturity Matrix©</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Outside the Church where the Tsars are Buried</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Inside the Church where the Tsars are Buried</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Chasing the Lollyman</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Laying the Foundation for the Star Amphitheatre</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Construction of the Star Amphitheatre</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Completed Star Amphitheatre</td>
</tr>
<tr>
<td>Figure 8</td>
<td>South Korean Fans with Timers</td>
</tr>
<tr>
<td>Figure 9 and 10</td>
<td>Warning on Packaging Selling Fans in South Korea</td>
</tr>
<tr>
<td>Figure 11</td>
<td>The Cover of Newsweek December 4 1978</td>
</tr>
<tr>
<td>Figure 12</td>
<td>The Jonestown Tragedy</td>
</tr>
<tr>
<td>Figure 13</td>
<td>Older Brothers Bruce and Graham with a First Billy Cart</td>
</tr>
<tr>
<td>Figure 14</td>
<td>The BGR Special</td>
</tr>
<tr>
<td>Figure 15</td>
<td>Kambah Cubby</td>
</tr>
<tr>
<td>Figure 16</td>
<td>Urambi Village Map</td>
</tr>
<tr>
<td>Figure 17</td>
<td>Kambah District Park</td>
</tr>
<tr>
<td>Figure 18</td>
<td>Community Woolshed</td>
</tr>
<tr>
<td>Figure 19</td>
<td>Kambah Community Gardens</td>
</tr>
<tr>
<td>Figure 20</td>
<td>Kambah Adventure Playground Flying Fox</td>
</tr>
<tr>
<td>Figure 21</td>
<td>Kambah Adventure Playground Super Swing</td>
</tr>
<tr>
<td>Figure 22</td>
<td>Contraband Found at AMC</td>
</tr>
<tr>
<td>Figure 23</td>
<td>Early Formation of Interest in Music and Performance - Aged 3</td>
</tr>
<tr>
<td>Figure 24</td>
<td>First Rock Band: The Light Brigade</td>
</tr>
<tr>
<td>Figure 25</td>
<td>Second Musical Time Demons</td>
</tr>
<tr>
<td>Figure 26</td>
<td>Headlines About Jessica Watson's Failed Start</td>
</tr>
<tr>
<td>Figure 27</td>
<td>Concept Map of Zone of Proximal Development and Scaffolding</td>
</tr>
<tr>
<td>Figure 28</td>
<td>Unknown Unknowns</td>
</tr>
<tr>
<td>Figure 29</td>
<td>The Competence Framework</td>
</tr>
<tr>
<td>Figure 30</td>
<td>The Competence Maturity Framework</td>
</tr>
<tr>
<td>Figure 31</td>
<td>The Psychology of Goals Trade-Off</td>
</tr>
<tr>
<td>Figure 32</td>
<td>The Institutionalisation of the Charisma - Max Weber</td>
</tr>
<tr>
<td>Figure 33</td>
<td>The Gungahlin Bridge Collapse</td>
</tr>
<tr>
<td>Figure 34</td>
<td>Visual Pathways</td>
</tr>
<tr>
<td>Figure 35</td>
<td>Binoculars and Social Psychological Lenses</td>
</tr>
<tr>
<td>Figure 36</td>
<td>Peace Park</td>
</tr>
<tr>
<td>Figure 37</td>
<td>To Reconciliation Place</td>
</tr>
<tr>
<td>Figure 38</td>
<td>The Axis of the Parliamentary Triangle</td>
</tr>
<tr>
<td>Figure 39</td>
<td>Welcome to Brutalism</td>
</tr>
<tr>
<td>Figure 40</td>
<td>Skyspace - Within without - James TURRELL</td>
</tr>
<tr>
<td>Figure 41</td>
<td>Australian War Memorial</td>
</tr>
<tr>
<td>Figure 42</td>
<td>Roof Hall of Memory</td>
</tr>
<tr>
<td>Figure 43</td>
<td>War Memorial to Parliament House</td>
</tr>
</tbody>
</table>
Foreword

Risk used to be more prevalent in our society – and I would argue, more viscerally joyful than actually risky in an objective sense; the open door in the old style moving trains or ‘riding the hook’ as the old builders used to do to guide a load up a building site. Nowadays risk is seen as bad and to be eliminated, no questions asked. But I wonder if in doing so we are causing unexpected problems, one being boredom. As Victor Frankl once wrote, ‘boredom is now causing, and certainly bringing to psychiatrists, more problems to solve than distress’.

I first met Rob Long when I was director of a building company and came across a rare approach to risk that looks through the purely-numerical-analysis method to the deeper relationship we have with risk. As Rob shows, a relationship with risk is essential for our own maturation and learning. Rob constantly draws out this need we have for growth, development, challenge, adventure, learning, imagination and ultimately, meaning and fulfillment. In encouraging us to embrace risk with wisdom, he keeps the proverbial baby whilst dealing with the bathwater. Boredom is kept at bay. This needs to be celebrated.

I love adventure. For me, risk is an integral part of that adventure. Whether it’s climbing a mountain, negotiating rapids or simply arriving in a non-English speaking city with no guidebook and no itinerary, there is something compelling about the unknown. Some strange relationship between the sick feeling of fear and the joy of pushing past it. In so doing you earn something valuable. Life feels richer and more, well, real.

My cousin died at 21 in an avalanche whilst skiing in Australia’s back country. A risky, adventurous activity ended in the worst possible way. At his funeral his brother and another of my cousins decided with me to organise an adventure in his honour. Rather than shy away from risk, the rule we established for ourselves was simple: at each decision point we would take the more difficult option. That is what saw us crossing Mongolia in the middle of winter using only horses and camels, and, when the wind was up, kite-skis. That we were out of our comfort zones goes without saying. We were managing risk the entire time. The adventure made us much closer to each other and gave us newfound confidence in dealing with the unknown. In addition it was incredibly rewarding.

There is something free and soulful about the exhilaration of jumping on the back of a truck in Patagonia or jumping into the sea in Antarctica. Not necessarily safe, they are definitely enriching experiences. This quest for meaning and enrichment is deep within us. It may come from a Paleolithic need to catch the wild animal or go hungry, where Charles Darwin helped reward (via natural selection) the ones who would take as much risk as possible for success without dying (or at least not until they had sired a few kids). Whatever its origin, the word most closely associated with risk is ‘reward’. You can’t have one without the other.

In the worlds of regulation, academia and boardrooms many obsess about the numerics of risk to the detriment of a real understanding of it. Some are good at counting risk but cannot discern its true value. How can anyone know about risk if they have spent their whole existence trying to avoid it? How can one understand risk if one doesn’t take risks? The truth is, risk makes sense. In the world of risk orthodoxy the opposite is the case; one would think risk is evil, to be feared and unnecessary.

This is Rob’s third book on the theme of risk and learning. This is a book about the realities of living in a world where things go bump in the night, wheels fall off and fallible people learn from mistakes. A world where millions of Australians don’t even think twice when walking one metre from a two tonne object driven at speed by a stranger yet in their workplaces work to a regime that demands a guardrail when working at a height of more than about one metre. This muddled state is highlighted
by Rob in his books, where an individual’s acceptance – and even thirst for – risk in his private life contrasts with a complete abhorrance of risk in his public life. No wonder people are so confused and unable to discern real risk from illusions of risk.

So what will the fear of risk give us? We may get to the stage where our children won’t know how to play without a device of some kind. They may not be able to undertake an activity without the safety advice of an expert. They may not be able to have fun or adventure with just themselves and whatever is available – sticks, stones and dirt. And so, when all risk is banned, all adventure is harnessed, all safety is deified and every sharp object is wrapped in protective foam, will we know how to be truly human? As we get closer to this risk-free reality, paradoxically we will see more societal pathology. We must bravely resist this tendency.

Warren Buffet might define financial risk in the perjorative as coming from ‘not knowing what you are doing’ but more broadly the Danish theologian Søren Kierkegaard said ‘during the first period of a man’s life the greatest danger is not to take the risk’. We’ve heard enough about the negatives of risk. Let’s learn more about the necessities of it.

James Kell
Adventurer, Photographer, Thought Leader and Businessman

Special Thanks

My deepest thanks to the amazing editorial and graphical support of Pip and Craig Ashhurst, also to Justin Huehn. Craig and Pip have been great friends and fellow travellers on the journey in learning for over 20 years. Justin has been amazing in turning my ideas into graphical realities, a language I wish I was more skilled in speaking.

This book would not be possible without them. I look forward to book four that will be co-authored with Craig and will rely a great deal on his PhD research into ‘wicked problems’. Craig’s work and research on wicked problems has also greatly influenced my comments on this subject in this book. Thanks Craig and Pip for your support over the years and in bringing this book to fruition.

Thanks to Gabrielle Carlton for her support and feedback regarding key concepts in the book.
With Thanks to Helen

A special thanks to my wife Helen who 40 years ago took a step in faith, as did I, into the mystery and uncertainty of marriage. At the time we thought as young twenty year olds that we knew what we were doing, that we knew the risks of the promises we made to each other. Now, with the benefit of hindsight, we realise we knew very little and in many ways took one of the greatest risks of our lives with very little knowledge and experience. But why not take that risk? How much have we learned from the journey? This journey has only been possible with the love and care of a number of supportive communities. Extended family, church and professional communities have all had a part in the getting of wisdom and the development of learning. Helen, thanks for walking that journey with me.

About the Book Logo

As with the previous book, three icons have been developed to assist with thinking. The three symbols on the cover and at the footer of each page serve to highlight the essentials in discerning real risk. The first symbol indicates ‘disconnectedness’. In many ways people are more than ever disconnected from risk. The quest for risk aversion in western society continues to attract executives and managers without any thought about by-products, the demise of learning and risk maturity.

The second symbol indicates the capability of discerning through contemplation and reflection. The idea that decisive decision making is better than no decision at all is valued by a society that prefers pragmatic activity and experience rather than critical ethical thinking. Observation of social media mindlessness demonstrates the attraction of simplistic, fundamentalist thinking in the face of complexity and a plethora of wicked problems. The ‘cult of the amateur’ fuels disconnectedness and a developing lack of discernment and wisdom in risk.

The third symbol represents community and it is only through the dynamic of community that people can truly engage and learn in risk. This symbol reminds us that all we do is in relation to others, what Martin Buber meant by the I-Thou that defines humanness. The challenge of risk is the challenge of social psychology; risk is a social activity. People will only become discerning and wise in risk if they embrace living and learning about risk through the dynamic of community. The management of risk, as if it is the problem of individuals, drives the attachment of blame through regulation-only approaches to understanding risk. This approach views people as objects within a system of work and living, and leads to exploitation and indoctrination. The combination of these three icons throughout the book serve to remind us that risk only makes sense when we learn how to embrace it.

A Special Note on Discerning

The choice of the word ‘discerning’ for this book is quite intentional. The idea of discerning complements the process of sensemaking (Weick) and emphasises the value attributed to sensemaking, particularly from an arational (non-rational) focus. Coupled with the idea of discerning is the activity of exercising wisdom. These days, neither wisdom nor discerning is spoken about very much in relation to education, learning and risk. Also, it is important to place the emphasis on the participle ‘discerning’, rather than the noun ‘discernment’. The emphasis is on the doing of discerning, this requires wisdom and strategic thinking. No good is served by ‘dumbing down’ engagement with risk. The key to discerning is the capacity to differentiate, to know how to tell the difference between a scam and a truth, the real and unreal, and things helpful and unhelpful. Whilst the concept of
sensemaking is good in explaining how we ‘make sense’ of things, it tends to have a very rational and cognitive focus. The idea of discerning extends the idea of sensemaking to show how we place value in our sensemaking, particularly at a subconscious and unconscious level. The term is used in this book to highlight activities in perception that go beyond the physical and material in sensemaking. This is where wisdom develops. Rather than talking about ‘common sense’, we should be speaking much more about the activation of wisdom and discerning of risk.

The word ‘discerning’ has its source in the Christian tradition and is originally associated with knowing ‘by faith’. Discerning carries a sense of knowing that extends beyond just cognitive sensemaking to a holistic form of knowledge that includes more subconscious ways of knowing, e.g. knowing in ‘the gut’. Discerning gives value to intuition, the unconscious and the arational in the engagement of risk. Discerning refers to how a person sifts and weighs up evidence arationally and make judgements by intuition and heuristics. Sometimes people are known to have premonitions, intuitions and ‘feelings’ about things (often based in experience), and don’t know where such judgements come from.

The connection between the discerning of risk, attribution of risk, attribution error and ‘feelings’ of risk are critical for the discussion of this book. Simplistic approaches to risk endorse ‘unreal’ risk, such as is evidenced in the love of zero. Similarly, it is quite easy for humans to confuse the ‘feeling’ of risk with the ‘reality’ of risk.

A Special Note on Wisdom

The choice of the word ‘wisdom’ is also quite intentional for the message of this book. The idea of the ‘learning person’ is strongly tied to the notion of wisdom. Wisdom is about human judgement and decision making with regard to relationships, people, events and culture. Knowledge tends to refer primarily to the attainment of information and data. Wisdom connotes a form of knowledge that has more to do with the management of emotions, social context and arational knowledge. In ancient times wisdom was associated with the control of passions and the exercise of mature differentiation. Wisdom requires not only the exercise of intelligence but also the generation of self-knowledge, self-regulation, community consciousness and intuition. Wisdom is the resource for discerning and insight. Wisdom enables people to say ‘no’ to immediate attractions because they know intuitively what damage (by-products and trajectories) such a decision will cause later. It’s the discerning of the ‘one minute of pleasure for a lifetime of pain’ choice that requires wisdom.

There is not enough conversation about wisdom in risk and far too much focus about knowledge of regulation of risk. Wisdom knows that risks have to be taken in living, even risks that are faith–like without any real knowledge of possible consequences. Wisdom knows that when risks are taken consequences must be owned. Wisdom prioritises the needs of the ‘learning person’ over risk aversion.
Glossary

Arational: not based or governed by reason. Neither rational nor irrational but non-rational.

Cognitive Dissonance: developed by Leon Festinger. Refers to the mental gymnastics required to maintain consistency in the light of contradicting evidence.

Discourse: developed by Michael Foucault. The transmission of power in systems of thoughts composed of ideas, attitudes, courses of action, beliefs and practices that systematically construct the subjects and the worlds of which they speak.

Discernment: used to explain arational sensemaking with a particular focus on attributed value given to an activity or choice in sensemaking. Used in this book to mean perception that goes beyond the physical and material in sensemaking.

Heuristics: refer to experience-based techniques for problem solving, learning, and discovery. Heuristics are like mental short cuts used to speed up the process of finding a satisfactory solution, where an exhaustive rational search is impractical. Heuristics tend to become internal micro-rules.

Hubris: indicates a loss of contact with reality which results in extreme overconfidence and complacency.

Mentalities: comes from the French Annales School of History and refers to the history of attitudes, mindsets and dispositions. It denotes the social-psychological and cultural nature of history.

Mindfulness: developed by Karl E. Weick and indicates the preoccupation with failure, reluctance to simplify interpretations, sensitivity to operations, commitment to resilience, and deference to expertise.

Myth: a fictional half-truth that forms part of an ideology that is embedded in culturally accepted practices.

Priming: is an implicit memory effect which influences response. Priming is received in the subconscious and transfers to enactment in the conscious.

Sensemaking: is about paying attention to ambiguity and uncertainty. Developed by Karl E. Weick to represent the seven ways we ‘make sense’ of uncertainty and contradiction.

Unconscious: processes of the mind which are not immediately known or made aware to the conscious mind. The term subconscious is also used interchangeably and denotes a state ‘below’ the conscious state. The subconscious is more associated with psychoanalytics.

Wicked Problems: A wicked problem is an intractable problem. Wicked problems are multi-layered, highly complex, multi-dimensional, unsolvable and require transdisciplinary collaboration just to ‘tackle’ the problem.
What This Book Is About

This book is the third in a series on risk. It is a complement to book one, *Risk Makes Sense: Human Judgement and Risk*, and book two, *For the Love of Zero: Human Fallibility and Risk*. *Real Risk* is a book about the attribution of risk, the realities of risk, disconnectedness from risk and the wisdom of engagement with risk. Whilst there is much talk about regulation and the assessment of risk, there is precious little discussion about the subjective discernment of risk. The idea that risk assessment can be undertaken objectively is a nonsense. No thinking about risk is independent of human bias or social context. So this book is about thinking and learning about risk in an imaginative and creative way. It seeks to step away from the mythologies of objectivity in scientific and engineering approaches to risk, and embrace the human dimensions of risk.

The first book commenced with a quote about risk aversion evidenced in the absurd bannings of sack races, dodgem cars and kite flying in the UK. Since then the Health and Safety Executive (HSE) of the UK have established a ‘flying squad’ to address this problem. In 2012 the HSE launched an independent panel called the ‘Myth Busters Challenge Panel’ (Myth Squad). The purpose of the panel was to scrutinise decisions associated with risk averse rulings (http://www.hse.gov.uk/contact/myth-busting.htm). As stated on the HSE site,

This Panel will look into complaints regarding the advice given by non-regulators such as insurance companies, health and safety consultants and employers and, quickly assess if a sensible and proportionate decision has been made. We want to make clear that ‘health and safety’ is about managing real risks properly, not being risk averse and stopping people getting on with their lives.

and

The HSE said that health and safety rules had been wrongly invoked to stop ‘pin the tail on the donkey’ games; to ban selling candy floss on a stick in case customers tripped and impaled themselves; and to replace park benches because they measured up three inches too low. However, the Minister for Employment Chris Grayling stated: ‘common sense is the key to successful health and safety’.

Unfortunately, invoking the non-sense of common sense doesn’t drive thinking and learning but rather maintains the mythology of an objective idea of risk assessment. With such illogical absurdity coming from the Minister, it is no wonder that nothing has improved and that absurd levels of risk aversion continue.

One month after the establishment of the Myth Squad the media and some politicians were calling for the squad to be disbanded. The problem is simply this: tackling cultural problems with bureaucratic solutions perpetuates more complex problems. This kind of thinking sees every problem as a nail, and the only solution a hammer. One of the first cases referred to the Myth Squad was a request for a determination whether firemen should venture into a pond to rescue a trapped seagull. The Myth Squad replied that it would take five days to deliberate on the case and provide a ruling. This case in April 2012 made the Myth Squad a laughing stock.

All risk is attributed, subjective, human, social and personal. There are dozens of factors that affect the way humans attribute risk. Humans overestimate or underestimate risk according to such things as recency, familiarity, sunk cost, representation, framing, availability and a host of cognitive biases in the human psyche. This is why the handbook Communicating and Consulting About Risk (HB 327:2010) to Risk management - Principles and Guidelines (AS/NZS ISO 31000:2009) for the first time, raised the issue of heuristics in the context of communication about risk. The assessment of risk
is a subjective exercise and the idea that a Myth Squad can arbitrate on the excesses of risk aversion
simply perpetuates ongoing myths about risk assessment. The establishment of the Myth Squad more
deply endorses the idea that only experts can arbitrate about risk. Indeed, it is the professionalisation
of the risk discourse that has generated the trend of risk aversion in society in the first place. This
is why so many have called for the exercise of ‘common sense’ regarding this issue. The fact that
‘common sense’ can neither be defined nor demonstrated is brought to light by the fact that the UK is
now caught in such a tenuous position.

I heard stated the other day in a tier one organisation that ‘the door of risk swings on the hinge of
common sense’. Belief in the myth of ‘common sense’ is partially why people turn to a host of tools to
regulate their own sensemaking. This zig zag push and pull by orthodoxy and government regulation
about the everyday ability to manage risk, perpetuates the belief that risk doesn’t make sense. So
now the call is for a return to ‘common sense’ by the government whose regulator sits in judgement
on those who exercise their sensemaking to take risks. All of this is presided over by vested interests
who are best served by ongoing confusion and fear. If there was ever a time for increased discernment
about real risk, the time is now.

This brings us to the topic of this book: Real Risk: Human Discerning and Risk. The fundamental
proposition of this book is that people are more disconnected from risk than ever before. Risk
aversion drives risk ignorance, whereas risk engagement drives risk intelligence. And because of this
continuing risk disconnectedness people have become less discerning about risk. People are more and
more being ‘dumbed down’ by the simplistic thinking about risk, risk management and risk myths.
The problem with this trend is that it is also matched by a decline in creativity, ingenuity, adventure,
learning, imagination and innovation. Engaging with and learning from risk are vital if humans are
to become risk intelligent. Risk aversion and learning aversion are on parallel tracks, running side by
side. Risk aversion is anti-learning. There is plenty of talk about risk aversion these days but so little
talk about imagination, the fundamental skill required to discern risk.

When Barack Obama became the 44th President of the United States of America he praised
America’s risk-takers (http://www.entrepreneur.com/blog/218332). He stated:

‘It has been the risk-takers, the doers, the makers of things – some celebrated, but more often
men and women obscure in their labor – who have carried us up the long, rugged path toward
prosperity and freedom,’

Obama knows that countries decline and shrivel up without imagination, risk taking and learning.

What does the growing demand for risk aversion mean? It means that people without discernment
in risk become blinded to the realities of risk and become more attracted to risk myths. This means
that people fail to see things because they weren’t on the checklist, or fail to make a decision because
the risk professional is not around. Such a disposition reduces the capacity of people to develop
ownership for decisions in risk in deference to the fear and anxiety of insurers, legislators, regulators
or professional risk merchants. This is how risk aversion has been accelerated. One of the greatest
accelerants for the ‘dumb down’ inferno has of course been the discourse of zero harm. This was the
topic of the second book in the series, For the Love of Zero: Human Fallibility and Risk. The pursuit of
perfectionism and absolutes is an alienating quest, and one that disconnects humans from the wisdom
of risk. The discourse of zero, and its priming of humans for failure, is the fuel for risk aversion. In
that book the quest for absolutes was described as a fundamentalism, a black-and-white crusade that
seeks to eliminate the need for wisdom or discernment in risk. The drive for risk aversion seeks to
dehumanise the risk process.
What is disconnectedness in risk all about? Central to the idea of human disconnectedness is the idea of what it is to be a ‘learning person’. The learning person has a sense of meaning and purpose in living. This is what some might call an educational anthropology. Essentially this disconnectedness is an alienation from what it means to be truly human. When one is so choked by fear and anxiety about risk then one is alienated from what it means to be enlivened as a human. When one is swamped by the complexity of systems so that comprehension, action and living are squashed, then people are dehumanised. The machine-like approach of behaviourism (perpetuated by such movements as Behaviour Based Safety) offers no real humanisation for the ‘learning person’. It seems strange in a world that is busier than ever, full of intense social media exchanges and exploding knowledge, that western society is growing more risk averse, less adventurous, more lonely, more conservative and more mechanistic in dealing with risk than ever before.

It is in the risks of life that we live and learn and develop the wisdom to risk in learning. Fundamental to embracing risk with wisdom is the ability to live in community and relationship with others. One could be forgiven these days for thinking that risk management is all about the management of objects not subjects. Many people in professional positions as regulators and auditors are consumed by focusing on objects as if there are no subjects connected to those objects. Rather than studying social and psychological influences on human judgement and decision making, the assumption is that objects in themselves are dangerous.

When systems begin to serve themselves rather than the ‘learning person’ then disconnectedness occurs. When systems ‘flood’ humans so that they default to internalised non-relational decision making then we become disconnected from what it is to be human. The failure to think about risk is also a failure to think in ‘communities of practice’. The thinking of the individual now characterises what it means to think, and imaginative collaborative strategic thinking about risk is less common.

Whilst the first book was entitled ‘Risk Makes Sense: Human Judgement and Risk’, it could just as easily have been entitled ‘Learning Makes Sense: Human Judgement and Learning’. In many respects of meaning, the word ‘risk’ is interchangeable with the word ‘learning’.

So to become truly human one must connect with risk. To be able to embrace risk with wisdom one has to move away from the current trends in risk aversion. One of the best ways to connect with risk and learn from risk is within the support of a learning community. The idea of wisdom formed in community is foundational to this book, as it is foundational to the idea of discernment.

When I was a school teacher I used to take 15 and 16 year olds out to the bush for a three-day camping experience. I used to think that I needed a curriculum to justify its educational value but I soon learned that experiential learning on its own is a valid method in itself. We learned through relationship and community in a different context. I remember one such camp when some young ladies brought hair dryers to the bush. As a joke, someone told them that there were powerpoints at the base of large trees. So here they were looking for the powerpoints until one kind person told them it was a myth. Ah, the need for discernment.

The emphasis of this book extends our learning in the social psychology of risk. It seeks to broaden learning so that non-conscious characteristics of what it is to be human are emphasised and more considered in the discernment of risk.
Structure and Use of the Book

This book follows a similar structure to the previous books, in that it is intended to be a collection of short linked discussions. The first three chapters (Section One), deal with the need for discernment about risk. Chapters four to six (Section Two) deal with ways in which humans are disconnected from the realities of risk. Chapters seven and eight (Section Three) deal with ways to overcome ‘risk disconnectedness’ and the development of ‘risk wisdom’.

The book is not intended to flow in a cumulative argument like an academic piece but is rather intended for readers to surf like the Internet, jumping in and out of topics as required.

Some sources and books are referred to throughout the book. This is more as a pointer for further interest than for academic validation. A complete reading list is provided at the end of the book for those who wish to delve further into a particular topic.

The book can also be used as a workshop and training manual for programs in leadership and management in risk. Each chapter end has a section of suggested workshop questions which can be used by safety or security professionals or as a framework for a safety culture or security culture training programs with Dr Long and his team.

For those who wish to read the book from cover to cover, there are transitions at the conclusion of each chapter to help direct flow between chapters.
A Review of Ideas in Book One - Risk Makes Sense

Several prominent philosophies in the workplace now foster total risk aversion and therefore encourage a lack of discernment, wisdom and learning. Some of these life-learning destroying philosophies were discussed in the first book Risk Makes Sense. For the purpose of review these philosophies are:

1. Engineer Out The Idiot
The philosophy of 'Engineer Out The Idiot' just creates more idiots. People without risk experience cannot make a decision because the experience and memory required to make sense of risk has been sheltered from them.

2. Zero ideology
Zero ideology is another philosophy which accentuates micro-risk and risk elimination, and fosters an anti-human pro-robot goal. This goal and it's discourse makes risk the evil enemy and distracts people from the need to intelligently embrace risk. The philosophy is encouraged by a simplistic binary logic about targets and goals that ignores all the espoused wisdom on goal setting and research in the psychology of setting goals.

3. Professionalisation
The philosophy of professionalisation, of a risk management class, fosters the idea that ordinary people cannot make sound judgements about risk but rather must consult a professional. So whilst the building is burning down we must wait for the fire warden. The Engineer Out the Idiot philosophy assists in fostering the professionalisation of the safety and security industries.

4. Rational-Only
The 'rational-only' philosophy which is fostered by a preoccupation with measurement in risk management fails to appreciate the important 'arational' nature of humans. Rational-only philosophy fails to understand the non-rational ways humans think and act. A failure to consider the unconscious and subconscious in human decision making misunderstands the foundation of human judgement. As a consequence the rational-only approach to managing risk can only see what can be measured and controlled through rational means. It is important that what is pursued in risk management is not cut off from the 'naive' experience of humans. Unfortunately the abstraction of risk in encyclopaedias of paperwork and formalisation creates distance between the policy maker and user. This 'gulf of irrelevance' encourages cynicism and scepticism which in turn manufacture a lack of discernment. The wider the gulf between the policy-makers, the intelligence of research-based thinking and the user, the less discernment is enabled in the frontline worker.

5. Behaviour-Only
A philosophy which de-emphasises learning and only promotes behaviour, e.g. behavioural based safety (BBS), encourages an action-only focus and diminishes the need for critical thinking (discernment) in the workplace. This is observed in many organisations' mission and vision statements where the word 'learning' is neither identified or mentioned in self identity. Rather, the emphasis in often on compliance and policing, zero tolerance and control. These are tools for indoctrination and training rather than education. Education is about learning and ownership. Of what value is compliance if it is only obtained while the police are around?
6. The Intimidation of Orthodoxy
The ‘intimidation of orthodoxy’ is a philosophy that fails to encourage thinking ‘outside the box’. It is an outcome of the professionalisation of risk management. Yet critical thinking occurs best when people are exposed to a wide array of competing ideas and philosophies and are given space and thinking tools to discern human-enabling truth and ethics from dehumanising error and moral failure. Furthermore, the orthodoxy of compliance-seeking behaviour encouraged by regulators and legislators, fails to entertain thinking and ideas outside their sphere of interest. This is entrenched through the ‘sunk cost effect’ and paradigm constraint. Therefore, regulators tend to believe that ideas from psychology, social psychology and arational sources of knowledge have little relevance to risk management.

7. Risk Neurosis
The continual focus on litigation and compensation has driven a spiralling trend in safety, risk and security ‘neurosis’. Risk neurosis develops as an ideology in itself, fuelled by fear and anxiety. This was emphasised by the (now) British Prime Minister, David Cameron, when in 2009 he described the state of affairs as a ‘national neurosis with health and safety rules’. We are yet to learn this in Australia. Cameron argued that the UK had to reduce the blame and litigation culture which had developed to a choking level, and adopt ‘a more realistic approach to the management of risk’.

8. The Cult of the Amateur
The power of the philosophies of professionalisation and the intimidation of orthodoxy has given rise to a new yet ignorant wave of scepticism. The new populist scepticism is poorly informed yet more deeply entrenches orthodox views about risk. The Cult of the Amateur (Andrew Keen, 2008) evidenced in social media thinking, has given rise to the power of an army of ‘arm-chair experts’. The cult of the amateur, rather than bring an alternative perspective about risk, simply endorses orthodox views. This is because the cult of the amateur is about power-distance from experts rather than difference in perspective. The populist view about risk continues to endorse the philosophies of zero, rational-only and ‘engineer out the idiot’. The rise of blogs and social media such as Twitter and Facebook has allowed this new scepticism to have considerable power to an extent previously unseen. As Keen (p. xiv) states:

MySpace and Facebook are creating a culture of digital narcissism; open source knowledge-sharing sites like Wikipedia are undermining the authority of teachers in the classroom; the YouTube generation are more interested in self-expression than in learning about the outside world; the cacophony of anonymous blogs and user-generated content is deafening today’s youth to the voices of informed experts and professional journalists; kids are so busy self-broadcasting themselves on social networks that they no longer consume the creative work of professional musicians, novelists, or film makers.

Whilst some aspects of the social media are good, the devaluing of all knowledge as ‘opinion’ has now promoted a culture of the self as the final arbiter of truth and ethics. This has also been contributed to by tabloid journalism and ‘shock jock’ radio. The stratosphere is now full of a huge amount of ‘noise’ foisted on a society without the tools to discern its value. This is further exacerbated by the demise of school subjects such as History which were once understood as teaching tools for critical thinking rather than the memorisation of dates and parliamentary study of ‘civics education’.

These eight philosophies help fuel the current thinking that risk doesn’t make sense. People are now disconnected from the sense of risk more than ever. The realities of risk are denied to such an extent that the wisdom required to discern risk is now in short supply.
What can be done about risk disconnectedness? How can we help the next generation to embrace risk with freedom and wisdom rather than fear? Can the complexities of the risk industry and its professionalisation be countered?

9. Systems-Only

The systems-only philosophy misunderstands the complexities and inter-relationships of culture, indeed defining culture as systems. The systems-as-culture approach was discussed in the first book in relation to the way legislators and regulators seek to solve problems. This philosophy simply builds more systems on systems to solve systems problems. The trajectory of this approach leads to an outcome where humans are ‘flooded’ by systems and give up on them retreating to micro-rules, intuition and implicit knowledge.

10. Rationalist-Only

The final philosophy addressed in the first book was the view of the world which ignored the unconscious and subconscious in human judgement and decision making. The rationalist-only approach, which has close associations with the systems-only and behaviour-only approach, is another materialist ideology. The first book argued that without consideration of arational (unconscious and subconscious) dimensions of human decision making and judgement risk cannot make sense. Rationalist-only and materialist-only approaches fail to explain counter-intuitive decision making, cognitive dissonance, heuristics, cognitive biases and a host of arational modes of judgement.

A Review of Ideas in Book Two - For the Love of Zero

In the second book in this series, *For the Love of Zero: Human Fallibility and Risk*, a number of the ideas were presented in response to the populist notion of ‘zero harm’. The central ideas of the book were as follows:

1. Zero Harm Discourse is an Ideology

Humans have a tendency to take an idea or concept identified in a set of words, and develop it into an ideology. An ideology is to be understood as that synthesis of beliefs within a culture which defines answers to problems and tends to commit people to actions consistent with their belief system. When a concept takes on the characteristics of an ideology, the person’s ‘mentality’ (their social and mental equipment) causes the concept to become an all-encompassing determinant of culture. The word ‘zero’ of itself describes a concept beyond a number. Zero is both nothing and infinity; it is a conundrum of logic and mathematics.

When the zero harm discourse takes on the characteristics of an ideology, it becomes an all-encompassing identity that cannot be debated or challenged. Zero harm ideology is founded in a logic of binary opposition and all challenges to it as a system of thought are deemed oppositional. As a belief system, the idea of zero harm, drives proponents to a ‘calculative’ mindset. What often starts out as a simple quest to eliminate harm takes on, courtesy of its own dynamic of absolutes and perfectionism, an absolute trajectory that becomes increasingly difficult to maintain in the light of the reality of human fallibility.
2. The Ideology of Zero Harm is a Fundamentalism

The concept of zero is an idea of extremes. When one maintains a belief system that is founded in an extreme, a black-and-white concept, it becomes difficult to defend in a balanced way. Applying an absolute perfectionist idea to the everyday life of fallible humans is problematic, and leads to the maintenance of a belief system that cannot countenance non-absolutes in discourse and triggers absurd assertions such as ‘all accidents are preventable’. When the absolute is not achieved, when the target is not maintained, a whole new language is developed in cognitive dissonance to maintain the ideology. This trajectory emerges in the behaviour and discourse of zero harm proponents in the same fashion as in fundamentalism. This is evidenced in the selectivity of definitions of harm, hiding in reporting and shifting of meaning.

3. The Quest for Perfectionism and Absolutes is Alienating

The idea of an absolute and perfectionist goal as applied to fallible humans is alienating. The more one sets unattainable goals for fallible humans, the more is accentuated failure and confusion about the meaning of the goal. In the second book, evidence from the MiProfile survey was presented showing that more than 65% of all workers do not find the language of ‘zero harm’ motivational, meaningful or inspirational in the management of risk.

4. The Discourse and ‘Priming’ of Zero

The idea that the discourse of zero harm is a harmless set of words ignores all the evidence to the contrary that suggests that the human unconscious is easily ‘primed’ by words and influenced by discourse. Discourse is understood as the power embodied in the language associated with the words. So the use of the words ‘zero harm’ have their own dynamic and prime the receiver to a black and white mindset immersed in an absolute. The more one is ‘primed’ by the absolute discourse of zero, the more one has to juggle and use tortuous logic to manage the non-achievement of it. It was suggested in the book that the best way to manage zero harm was to be silent about it.

5. Strategies Without Zero

The second book concluded with a section on being ‘world class’ in the management of risk and safety without the use of the ideological discourse of zero. The risk and safety maturity matrix was introduced showing that excellence in engagement with risk can only be attained beyond the limits of the calculative mindset. In this sense those who wish to advance and mature to a generative approach to safety and engagement with risk need to give away the fundamentalist quest for zero harm, with its numerically-centred approach, and instead focus on a more human-centred approach.

6. The Humanising Organisation in Risk

Key to the alternative to ‘zero harm’ in engaging with risk is not just the rejection of the calculative zero, but movement forward and maturing of thinking in humanising the organisation. The learning organisation is one that humanises the focus on risk, moving away from counting to empathising. The humanising organisation knows that language and discourse shape behaviour. Language and goals that drive a calculative zero mindset, place people on a trajectory that meditates on binary thinking and club-centred belonging, and in the end this becomes anti-learning in focus. The humanising organisation has its mission focused on the social psychological and cultural determinants of behaviour. Leadership understands these factors and seeks to influence them through vision and the articulation of the humanising process.
7. The Maturation of Risk Management

The humanising organisation is a 'high reliability organisation' (HRO) as was first articulated by K. E. Weick. It is argued in book two that the humanising organisation is the goal of 'world class' organisation. The risk maturity matrix is used to diagrammatically explain the maturation process. More about the Risk Maturity Matrix is explained on the Human Dymensions website.

Figure 1. The Human Dymensions Risk Maturity Matrix©
SECTION ONE

The need for discerning in risk
CHAPTER 1

The Need for Discerning in Risk

Not by years but by disposition is wisdom acquired - Plautus

Do not judge and you will never be mistaken - Rousseau (Emile Bk 3)

Differentiating and Discernment

The ability to discern is the ability to tell the difference between what is real and unreal, what is harmful and harmless, what is true or untrue, what is genuine and what is fake, and what is of most or least value in competing goals. When it comes to assessing, understanding and managing risk, it is important to attribute risk realistically. All risk is costly, but absolute risk aversion is just as costly. A great deal of living and learning is sacrificed in the risk aversion crusade. The trouble is, the more society pursues risk aversion, the more people become disconnected from risk and lose the ability to rightly discern real risk from unreal risk.

The following news report makes sobering reading.

Vandals recently spray painted a doctor’s house with the term ‘paedo’.

A paediatrician at a South Wales hospital has been forced out of her home by vandals who thought her job title meant the same as ‘pedophile’.

South African born Yvette Cloete, a Pediatrician (Paediatrician in other English versions), is a specialist registrar for the Royal Gwent Hospital for almost two and half years. Some dummy confusing the term pedophile (paedophile) with pediatrics, thought she was pedophile, so they spray painted all over her home with the term ‘Paedo’. When she woke up she saw all the spray painting and got scared and is now hiding at a friend’s house.

She has told the hospital and her friends, that she no longer will be staying at that area and feels it is less safe to live there.

Gwent Police are searching for the perpetrators and said it shows ‘extraordinary ignorance’ on their part.

The hospital spokesman told Ananova, a news site, that the doctor is very frustrated with the whole incident and would rather see it go away. He also requested if anyone knows about the vandals to contact them or the police.
Marie Thorn, a senior administrator at the Royal Gwent Hospital, said: ‘I spoke with Yvette after what happened to see how she is and she was dealing with it very well in the circumstances.

It seems Yvette was planning to move from the area for sometime, so this incident made her move quickly.

Marie said it is quite staggering people can make such a mistake, they must be incredibly ignorant. She also said Yvette has worked with her the last few years and she said Yvette is one of the nicest people one could ever meet.

Hope the doctor forgets this incident soon and gets on with her life. Lucky she was not hurt. She shouldn't let this incident affect her life, she should keep doing her best, if at all they are the ones should worry, they will face far worse situations later in life.

Chris V. Thangham Digital Journal - Paediatrician Mistaken for Paedophile May 16, 2007

http://www.digitaljournal.com/article/182683

What a sad state of affairs when such ignorance is on display. The ability to make an 'informed' judgement is called 'discernment'. A discerning person is generally thought to be able to act with wisdom, balance and perspective. The root of the word ‘discernment’ actually comes from the Bible and denotes the ability to make an informed differentiation between things. The opposite of discernment is observed in a lack of judgement and poor decision making. Poor discernment is often labelled in popular culture as 'stupidity'. Discernment is about much more than intelligence, knowledge or skill acquisition. It is much more about wisdom, which has to do with perception, judgement, decision making, ‘mentalities’ and maturity.

The ability to make wise choices is critical in the management of risk. If we are to embrace risk and learn from it, we must know how to make sense of it. Risk taking which makes sense enables learning and abundant living. Risk taking which does not make sense is that which is reckless and life-destroying.

A culture of discernment develops through the experiences and memories of those who have learned from risk. A culture of discernment cannot develop by constraining people from risk. The idea of wrapping people up in a legislative and regulation 'bubble' which devalues and constrains risk doesn't make sense. Every time there is some failure in risk, it seems the only solution is the four B's: barricades, banning, beltings and bureaucracy. The solution to failure in risk is not eliminating risk, but embracing it with wisdom and discernment.
Visiting the Zarsaberries

Whilst the situation at the Royal Gwent Hospital is sad, it is relatively easy to make mistakes in meaning and language. Meaning and discernment depend upon knowledge, education, experience, learning capacity (an openness to learning) knowledge of limitations and how one's knowledge and learning has been ‘scaffolded’.

In January 2011 my wife, my daughter and I caught the fast train from Helsinki to St Petersburg, the trip of a life time. St Petersburg is a most amazing city with a deep and rich history and culture. We were excited to be there despite it being a cold Russian winter, with all of the wonderful canals of the ‘Venice of the East’ frozen. With only a few days to spend I was keen to devote some time to wandering though The Hermitage, St Isaacs’ Cathedral, Kazansky Cathedral, The Winter Palace, Mariinsky Theatre and The Cathedral of Christ’s Resurrection. This last cathedral is known to St Petersburgers as the ‘Church of the Savior on Spilled Blood’, and is where all the Tsars are buried. This church has an amazing collection of mosaic icons, from floor to ceiling (103 metres). The Cathedral was commissioned by Tsar Alexander I on December 25, 1812, following the defeat and withdrawal of Napoleon’s troops from Russia. The Tsar proclaimed the cathedral a monument of gratitude for the intervention of ‘Divine Providence for saving Russia’ from doom, and as a memorial to the sacrifices of the Russian people.

Figure 2. Outside the Church where the Tsars are Buried
Figure 3. Inside the Church where the Tsars are Buried

Architecturally, the Cathedral differs from St. Petersburg’s other structures. The city’s architecture is predominantly Baroque and Neoclassical, but the Savior on Blood harks back to medieval Russian architecture in the spirit of romantic nationalism. It intentionally resembles the 17th-century Yaroslavl churches and the celebrated St Basil’s Cathedral in Moscow. The church contains over 7,500 square metres of mosaics that depicted biblical scenes and figures with fine patterned borders setting off each picture.

Neither my daughter nor my wife are students of history and, with ears full of Finish and Russian, they heard my garbled request to ‘visit the church where the Tsars are buried’ as something akin to visiting a church selling ‘zarsaberries’. Jenni thought we were going to the church of the zarsaberries, maybe a special Russian blackberry??? Maybe this church had a market garden? It wasn’t until we arrived there, ‘ripped off’ by a mafia-looking taxi driver with no meter, that the misunderstanding was sorted out. After pulling my daughter out of the taxi (she wanted to debate the fare with the driver), I spent a few hours in this amazing place, the
church where the Tsars are buried. While my wife and daughter shopped at the markets across the road, I took my time head back in awe.

It is relatively easy to see how a lack of discernment occurs. We all come to information and communication from out of our own histories and biases. This is how we make sense of things. Sensemaking is characterised by seven factors, as introduced in *Risk Makes Sense* (adapted from K.E. Weick in 2nd edition p. 101). These are:

1. **Self Esteem:** Your own confidence in yourself, personal identity and what you think of yourself in relation to others will affect the way you interpret information.

2. **History:** Your past story, from where you were born and lived to what got you to where you are. All things in your personal history have some influence over what you know and how you interpret the present. Interpretation is the foundation of differentiation.

3. **Social Context:** Where you are in relation to others, what is happening around you, the nature of those around you and the way they relate to the same information all influence the way you interpret information.

4. **Confirming Evidence:** We act something into belief, even creating a bias in our minds so that when something happens it confirms the belief. For example, if we rev up our own car in response to the hot car full of young men revving their engine beside us, we ‘enact’ a new scenario which may confirm or disconfirm what we already believe. We can hold our finger up in defiance to them or tactically ignore their behaviour, each act bringing into being a new act. Something new happens that makes sense of the past and affirms future predictions.

5. **Cues and Indicators:** What we see, hear and feel doesn't necessarily carry information with it. We recognise indicators and cues which give us information similar to things we have experienced before. We recognise the importance of the revving motor and know it means power, provocation and aggression. All information is subjective and interpreted.

6. **Believability:** Isn't it peculiar that when something unexpected happens we express surprise, amazement and disbelief? Our capacity to imagine is directly linked to not only what we believe but also to what we are willing to believe. Our ability to imagine extends or limits our ability to make sense of things. Believability is an important part of prediction, and combines with past experience and cues to help us imagine what is possible. If we don't think something is possible, we don't plan for it and certainly can't imagine the risks associated with it. Believability affects the way we interpret new information.

7. **Flow:** The final tool we use to make sense of things is flow. The pace and speed of events affects the way we interpret them. Much of what we sense goes quickly to our subconscious and triggers a rapid intuitive response. Our intuition or gut feeling bypasses the need to process things step by step in a slow logical or rational pattern. For example, our intuition gives us the ‘flight or fight’ response we need in a crisis.

These are the tools we use to make sense of things, or ‘sensemake’. These seven factors can affect the way we hear words, understand concepts and respond to the unexpected or unknown. In the case of the Zarsaberry's it was a simple lack of knowledge combined with the disorientation of a context of foreign languages that led to a misunderstanding. As in the case of the paediatrician mistaken for a paedophile, such confusion and lack of discernment can have disastrous consequences. Fortunately in this case, we all has a laugh outside of a most magnificent cathedral.
Chasing the Lolly Man

It’s difficult to separate risk from learning, learning from fun, and fun from risk. Whilst I understand the reasons playgrounds have become tributes to static plastic, I also see the by-product of risk aversion, in many more obese children playing on computers than running and playing outside. Risk aversion has a funny way of shifting risk rather than averting it. Is it worse to have a skinned knee from falling off a hurdy gurdy or the early onset of diabetes? This problem of shifting risk with children has been wonderfully articulated by Tim Gill in his book *No Fear: Growing up in a risk averse society*. For those interested, you can download a free copy of Tim’s book from http://gulbenkian.org.uk/publications/publications/42-NO-FEAR.html. Tim is another who makes sense of risk with regard to learning, and his website is worth reading (http://rethinkingchildhood.com/).

One of the essentials to discernment is experience: how can one develop experience in risk without taking risks? We do our children no learning service by wrapping them up in cotton wool and taking all moving parts out of playgrounds. We need to learn much more about the way risk trade-offs work and their by-products. One of the skills of discernment is knowing how risk trade-off creates new complexities that are not necessarily an improvement. Discernment knows about the dynamics of shifting risk, and includes insight into longitudinal perceptions about short term proposals. In some ways we have robbed our children’s generation of lots of fun, simple fun, that doesn’t require a hefty bank balance to satisfy. This kind of risk aversion also equates to knowledge and learning aversion. The following story illustrates this.

When I was young the majority of kids went to Sunday School. The idea of Sunday School grew out of efforts by the church in the mid 1700s in England to increase literacy in the Bible. Children who worked in factories were given opportunities by the church on their one day off in the week to improve Bible knowledge. In many ways the development of the Sunday School concept helped to improve literacy in general. Over the next century the role of Sunday Schools became a powerful movement in the church and society in moral indoctrination and identity. In the 1880s formal day schooling was developed by the creation of the Public Instruction Act.

In Australia in the 1950s Sunday Schools were popular, and even many parents who were neither Christians or supporters of the church sent their children to Sunday School for moral teaching. In hindsight, it was probably the best and cheapest child-minding service available for a quiet Sunday morning. All teachers in Sunday Schools were ‘lay’ people. Lay people are non-clergy enthusiasts who volunteer to teach what they know about Christianity to their class. Without much regulation or moderation of any kind (except for church membership and the eye of the clergy) this institution became a great melting pot for every shade of bizarre theology. It was also a magnet for all sorts of people with a ‘special interest’ in children.

My memories of Sunday School are very positive. I was lucky to have relationships with some great people who were ethical, animated, engaging and intelligent. Sunday Schools provided a session before or after church and in my experience were populated by hundreds of children - all my friends went to Sunday School. We used to have two big events each year: the Sunday School Anniversary (which included prizes and awards) and the Sunday School picnic. I loved both events but the Sunday School picnic was always exciting and fun.

Every Sunday School Picnic Day a bus or two would be hired and we would all travel to a local National Park or picnic spot and set up tables with food and treats, and community
events. There were athletics races and novelty events for everyone, but the best moment was the chasing of the lollyman.

At some time during the afternoon proceedings a man would appear (sometimes my Uncle Trevor) seemingly from nowhere with dozens of bags of lollies sewn onto an army great coat. The moment we caught sight of him the chase was on. The organisers of the picnic usually picked a strapping young 20 year old who was very fit and could outrun us for at least the first 30 minutes. There was so much excitement when the lollyman appeared, as free access to lollies was a rarity in those days. When I was a child the idea of austerity still lingered after World War II. My parents were products of the Great Depression and their conservatism with things such as lollies made the lollyman a great attraction. It was great fun chasing the lollyman; we were all overcome with feelings of frenzy, hysteria, abandon, excitement and recklessness.

I remember the excitement of seeing the lollyman for my first time and the reckless abandon that seized me in my quest to grab a bag of lollies. Here we were, over fifty kids scrambled in a race without thinking, crashing into each other, into trees, falling in ditches and getting plenty of knocks and bruises in our quest for a bag of ten lollies. The total value of the lolly bag was probably about 2 pence or 5 cents; such a lot of risk and adventure and so much fun at such little cost. We were so absorbed in this fun that we didn’t even talk about risks. As far as we were concerned there were no risks.

In 2012 ‘Chasing the Lollyman’ was an Indigenous drama production which toured Australia. The production involved a reliving of childhood stories and events of fun and laughter.

Figure 4. Chasing the Lollyman

The story of the lollyman illustrates how risk trade-offs work. Something of great attraction and fun is exchanged for risk. Sometimes these things that attract us have little tangible value. There are many activities in life where humans learn about losing control in pursuit of a goal, their value being in the fun and learning associated with the activity. And often such activities indirectly teach you how to make sense of risk.
More Bricks and Mortar for the Amphitheatre of Denial of Discernment

Sigmund Freud may have been wrong about a few things, but his discovery and naming of ‘defense mechanisms’ was ground breaking. However, we don't need Freud to tell us that admitting being wrong is a profoundly difficult activity for most people. Children seem to learn how to deny wrongness automatically by the age of two.

Admitting wrongness is an extremely demanding emotional activity and humans have a range of strategies at their disposal to ensure that mistakes are explained away. Understanding ‘wrongology’ and the psychology of defence is the foundation of all under-reporting and creation of ‘spin’.

Some of the case studies in Risk Makes Sense concerned religious cults and addictions. We can learn much about risk from the way groups deny wrongness particularly in the face of uncertainty and addictions. We can learn even more by understanding how cognitive dissonance works in relation to risk and fear. One of the fundamental attributes of discernment is the capability of ‘sifting’ evidence and developing wisdom to tell fact from fiction. The story of the Star Amphitheatre in Balmoral Sydney in 1923-24 is a wonderful case study that illustrates this point. This was first brought to my attention in the 1960s, by my father who had seen the amphitheatre and knew of its story.

The Star Amphitheatre in Balmoral Sydney was built in 1923-24 for the express purpose of viewing the second coming of Christ who was going to walk on water through Sydney Heads. In 1923 a woman named Mary Eleanor Rocke began to buy land at the northern end of Edwards Bay in Balmoral, Sydney. She wanted to build an amphitheatre on behalf of an organisation called the Order of the Star of the East.

Figure 5. Laying the Foundation for the Star Amphitheatre

The amphitheatre was designed to face North Head and Middle Head, so it was ideally located to view the entrance to Sydney Harbour.
The Star Amphitheatre was finished in 1924, costing £20,000. It towered 20 metres above the beach, and could hold 3000 people. Unfortunately for this group, Christ failed to arrive on May 21 1924. However, this did not end the activities of the cult, but rather strengthened it. The group went on to develop a whole array of explanations as to why Christ did in fact return but they didn't see it. You can read about how cognitive dissonance, sunk cost effect and other denial mechanisms work in the first book *Risk Makes Sense.*

The Star Amphitheatre was demolished in the 1950's and a block of flats built on the site.

Figure 6. Construction of the Star Amphitheatre

Figure 7. Completed Star Amphitheatre
What has all this got to do with the discernment of risk?

The foundation of the zero cult is the denial of humanness, and its logic is the idea that all accidents and incidents are preventable. This leads to people talking the impossible as possible and then justifying the impossible as a worthy aspiration. Zero harm is premised on a fundamentalist logic which projects attainable perfection onto human risk taking. The language of perfection, ‘primes’ humans for failure and denial. The language of ‘zero’ is a language that primes non-learning, and learning is the key to the development of discernment and wisdom. Rather than understanding that learning is essential to humanness and that risk is essential to learning, the zero harm cult indirectly proposes that risk is wrong and does not make sense.

Whilst ‘zero’ language may be attractive to CEOs it makes as much sense of risk as the Order of the Star of the East and the Star Amphitheatre does of religion. The logic and language of ‘zero’ is a language that is founded on proof of truth by opposites. In this binary way of thinking the language of ‘zero’ makes sense because a denial of zero somehow sets a goal of harm. Similar logic proposed that a rejection of the Afghanistan War was an expression of sympathy for terrorism.

The rejection of the language of ‘zero’ does not propose that injuries are acceptable. It is rather a rejection of language which primes humans in organisations for non-learning and non-discernment. Organisational culture characterised by non-learning and a lack of discernment is destructive to the understanding and management of risk. All goals have an embedded psychology which the cult of zero denies.

**Attribution and Fundamental Attribution Error**

Any assessment of risk is an emotional, arational and subjective exercise. Risks are not objective but are ‘attributed’. This is what Slovic talks about in his excellent book *The Feeling of Risk*. One person is anxious about an activity while the person beside them is not. Some people are confident with certain high level risks and others are much more cautious. Human biases aggravate or mitigate risk attribution (as discussed in books 1 and 2). The idea that humans assess risk objectively, or just calculate risk based on some common criteria in a risk matrix (exposure, frequency, probability and consequence), is not supported by the evidence. It is often after the event that we articulate
some rational explanation for our choice or risk ranking, but in reality that is not why we chose to undertake that task or take that risk in the first place.

The South Korean Fan Death Mystery

A good example of just how risk is aggravated, yet not connected to reality or scientific evidence, is illustrated in a study of the fear of fans in South Korea or what is known as ‘fan death’ myth. It is a widely held belief in South Korea that a fan left on overnight in a closed room can kill you. This is why all fans in South Korea must be fitted with a timer (see Figure 8).

Figure 8. South Korean Fans with Timers

Many scientific tests have proven that the risks associated with electric fans are not real but, due to cognitive dissonance, the evidence is not believed. To make matters worse, the South Korean Consumer Protection Board (KCPB) has issued the following warning:

\[\text{If bodies are exposed to electric fans or air conditioners for too long, it causes [the] bodies to lose water and [causes] hypothermia. If directly in contact with [air current from] a fan, this could lead to death from [an] increase of carbon dioxide saturation concentration [sic] and decrease of oxygen concentration. The risks are higher for the elderly and patients with respiratory problems. From 2003 to 2005, a total of 20 cases were reported through the CISS involving asphyxiation caused by leaving electric fans and air conditioners on while sleeping. To prevent asphyxiation, timers should be set, wind direction should be rotated and doors should be left open.}\]

Figure 9 and 10. Warning on Packaging Selling Fans in South Korea
Despite all the evidence from experts and research-based results proving the myth to be false the media continues to propagate the myth. What does such myth-making do?

Many people develop their decision-making based on fear and anxiety. Much of this fear and anxiety is generated by the language and images propagated by the media and professionals with vested interests in risk management expansion and regulation. For example, the more the discourse and language of ‘zero harm’ and ‘zero tolerance’ is used, the more organisations focus on and elevate the importance of low risks. The more zero language is used, the more it takes on a quasi-religious, even fundamentalist fervour, so that anyone who argues against it or proposes that such a belief is unhelpful is a ‘sinner’ in the religion of risk, safety or security. The propaganda of zero language and belief is no different than the fan death belief; the more it is peddled and propagated the more it is believed.

The way we attribute risk to activities is in part affected by many cognitive biases. The availability heuristic and probability neglect are two mechanisms that powerfully affect the way we attribute risk. Depending on what is ‘available’ to our memory or our senses, we magnify, distort or dismiss the value of certain risks. Humans are emotional creatures, and when fear and anxiety are intensified people focus on the adverse outcome more than the likelihood of that outcome occurring. This intensifying of emotions is where much human risk aversion originates. If you put this emotionally charged perception in crowds or through the media then mass hysteria and groupthink further distorts the real assessment of risk. The problem is that these factors make people fearful when they need not be, and fearless when perhaps more caution is required.

When humans misattribute risk this is known as ‘fundamental attribution error’ (FAE). One of the clearest examples of FAE is observed in the way people underestimate an addiction. It is not until the person admits the reality of an addiction that any beginning of change is possible.

**Dissonance at Jonestown**

If you want to learn something about discernment, a good place to start is to look at the dysfunctional activities of cults. The idea of ‘cognitive dissonance’ was first defined in relation to the study of cults. Many dismiss the activities of people in cults as the ‘looney fringe’ and so nothing is learned. However, the same dynamics operating in cults are evident each day in the workplace in the form of bullying, power-relationships, exploitation, blind allegiance, non-critical thinking, obedience/compliance regulation, attribution, reaction formation, groupthink and cognitive dissonance.

One of the most tragic events that illustrates the failure of discernment is the Jonestown mass suicide. The story of the People’s Temple and the rise of the Reverend Jim Jones, the migration to Northwest Guyana and the evolution of the Jonestown cult chronicle the typical development of cultic dependence and cognitive dissonance. On the fateful day of 18 November 1978, 918 people died, most by voluntary cyanide poisoning, in commitment to the cult of Jim Jones.

Jim Jones formed the People’s Temple, a fundamentalist group, in Indianapolis, Indiana, in the 1950s. The group received significant criticism and so moved to California in 1965. From there they subsequently moved to San Francisco in the mid 1970s.

The People’s Temple claimed to practise ‘apostolic socialism’. At the time the concept of forming communes was popular and Jones received endorsement from some politicians and prominent public figures. Jones’ preoccupation with the demonisation of government and his passion to establish a commune led him to move the People’s Temple to the jungle of French Guyana and set up Jonestown,
an ‘agricultural mission’, on 3,000 acres of land. The isolation and hardship associated with the chosen site helped build commitment to and ‘sunk cost’ in both the project and Jones himself.

Over time the community of Jonestown became increasingly fundamentalist and Jones more extremist and obsessed with conspiracy theories, positioning himself against supposed forces of darkness and evil. Indoctrination increased and questioning and debate were suppressed. Various forms of discipline, including confinement, were used for those who disputed with Jones. Children were surrendered to communal care and Jones insisted on being called ‘Father’ or ‘Dad’. He began to increase fatigue tactics and practised suicide commitment rituals called ‘white nights’.

Figure 11. The Cover of Newsweek December 4 1978

As the cult grew more extreme and some members escaped back to the USA, there was increasing scrutiny of Jonestown culminating in a visit by prominent congressman Leo Ryan on 14 November 1978. The visit precipitated a crisis for Jones, leading to some defections and a subsequent massacre of the Ryan delegation at the airstrip. Following this, Jones told the commune that the congressmen and party were dead and played a ‘death tape’ to the group. Members then vowed their loyalty to Jones and gave their support to the notion of revolutionary suicide. A vat of cyanide was mixed with ‘Coolade’ and administered first to children, then to adults, until all were dead. Jones himself died of a self-inflicted gunshot. A few survivors who hid in the bush lived to provide eyewitness accounts of the tragedy.

To dismiss this tragedy as the result of a bunch of ‘bone heads’ or the ‘lunatic fringe’ is simplistic and misunderstands what social psychology has taught us about the many dynamics at force to influence human decision-making. The power of the ‘sunk cost’ effect, conversion and cognitive dissonance are very powerful, and we fail to understand them at our own peril.
We may laugh at famous Hollywood people who fall victim to various cults, but are we so different? Are there various cult-like imperatives that influence the *cult*-ural imperatives in our workplace without our even realising it? For example:

1. What language and discourse is accepted in our workplace about the nature of risk, without question? Has the workplace adopted a ‘zero harm’ mantra without any evidence to support its claims?

2. Do the contradictions within risk management strategies at work get explained away?

3. Is blind ideological allegiance demanded and are people pressured into compliance?

4. Do people crusade over the will of others using the mandate of their risk profession to command rule?

5. Is debate and defection allowed? What concepts and ideologies are uncontestable?

6. Are learning, motivation, imagination and ownership key drivers of organisational strategy?

If one wants to develop a culture of ownership, learning and motivation (a learning organisation) one has to understand the drivers of cultural determination, diagnose them, and then develop strategies to implement them. Without such a culture an organisation will always have to ‘police’ for the behaviour it desires, and the culture will only exist as long as it is maintained ‘from above’. Punitive cultures are always expensive and rarely motivational.
Discerning The Secret

One of the most successful self-help books in history is The Secret (2006). Written by Rhonda Byrne, it has sold 21 million copies across 44 countries and the related DVD is one of the highest selling of all time. ‘The Secret’ promotes something called the ‘Law of Attraction’ in an objectified fashion as if it is a timeless principle which has previously been hidden from everyone.

The Law of Attraction principle posits that feelings and thoughts can attract events, feelings and experiences, from the workings of the cosmos to interactions among individuals in their physical, emotional, and professional affairs. The DVD includes interviews with individuals and self-described professionals and authors in the fields of quantum physics, psychology, metaphysics, coaching, theology, philosophy, finance, feng shui, medicine and personal development. All are referred to as ‘secret’ teachers. The DVD states that everything one wants or needs in life can be obtained by believing you will receive it, repeatedly thinking about it, and maintaining positive emotional states to ‘attract’ it.

The DVD was produced in Australia and promoted through talk and morning shows, backed by the marketing power of the Channel Nine Network. With endorsements by some of the big names in media such as Oprah Winfrey and Larry King, the book and DVD became an overnight success. The success of ‘The Secret’ shows just how the general populace is lacking in discernment. Byrne’s inspiration came from the 1910 book The Science of Getting Rich by Wallace D. Wattles. Unfortunately humans are mesmerised by ‘get rich quick’ schemes through a range of heuristics and cognitive biases. Similar ‘quick fixes’ and snake oil schemes are also common in the security and safety industries. There is much money to be made by promising CEOs simplistic fixes and telling them what they want to hear.

One only has to observe the outcome of the production of The Secret and, what has happened to its creators, to understand how simplistic solutions are delusional and naive. The Secret DVD promotes happiness through obtaining what your heart desires, yet the legal wranglings which have ensued with the creators is far from happy. The bitterness of greed is apparent for all to see through the court system. It seems that Rhonda Byrne didn't want to share the joys of hundreds of millions of dollars of success with the DVD director. At one stage it was selling at five copies per minute off the website and the book spent 66 weeks on The New York Times's Advice best seller list. It should be no secret that, in contradiction to Gordon Gecko, ‘greed is not good’.

Dumb Ways to Die: A Strange Sense of Success

When it comes to misattribution in risk and safety there is no better example then the fanfare over the ‘Dumb Ways to Die’ advertising campaign and its claims to success.

B&T comment:

The ‘beautiful’ Dumb Ways to Die campaign is officially the most-successful ever campaign at Cannes bagging two more Grand Prix on its final day, and 28 Lions overall. (http://www.bandt.com.au/news/advertising/mccann-bags-record-haul-as-dumb-ways-becomes-best)

Rail Express claims:

Metro Trains Melbourne’s (MTM) Dumb Ways To Die rail safety campaign has officially become the most awarded ad in the history of the Cannes advertising festival with the campaign’s producer, Melbourne agency McCann, winning 32 Lions awards. (http://
Rail Express further claims:
So successful was the campaign that within three months, MTM reportedly saw a 21% reduction in railway accidents and deaths compared to a year ago, with one million people already signing pledges on MTM’s http://dumbwaystodie.com/ which reads: ‘I solemnly swear to not do dumb stuff around trains.’

Businessweek claims:
There are clear reasons why ‘Dumb Ways to Die’ has been a success. It’s catchy and the animation is hilarious. But it has another, less obvious, thing going for it: the power of positivity.

So what is the success of this campaign? A dip in statistics over a three-month period? An animation that goes viral on the Internet?

If you want to understand what is going on here there is much more to this story than a cute jingle, animation and millions of hits. The connections with suicide in this campaign are stark.

Safety Transport Victoria Quarterly incident statistics for HEAVY RAIL 2013 – 1st Quarter (http://www.transportsafety.vic.gov.au/rail-safety/newsroom/news/news-articles/latest-heavy-rail-incident-statistics) states that the average fatalities (excluding suicide) on Vic Rail is 2 per quarter. Serious injuries average 9 per quarter. Suicides average 32 per year or 8 per quarter (Rail-related suicides in Victoria, Analysis of databases and literature review http://www.monash.edu.au/miri/research/reports/muarc215.html). Therefore, non suicide related deaths on Vic Rail equate to only 20% of all rail fatalities. So it is clear that this campaign was designed to address the major cause of fatalities in Vic Rail, suicide. This is made clear in the documentary Hidden Tragedy of Rail Suicides (http://www.theage.com.au/victoria/hidden-tragedy-of-rail-suicides-20120603-1zq87.html). The Dumb Ways to Die video and campaign is designed to address the 80% of fatalities on Vic Rail, suicides. The fact that the campaign has a focus on choice of death and mode of death indicates that suicide is the target topic. This was recognised by a number of countries that banned the campaign, e.g. the Russian government banned the video in February 2013 stating:

The song’s lyrics contains a description of different ways of committing suicide, such as: using drugs beyond their expiration date, standing on an edge of a platform, running across the rails, eating superglue and other. The animated personages demonstrate dangerous ways of suicide in attractive for children and teenagers comic format. The lines such as ‘hide in a dryer’ and ‘what’s this red button do?’ contain an incitement to commit those acts. (http://en.wikipedia.org/wiki/Dumb_Ways_to_Die).

Of course the parodies of the YouTube hit have now developed into the most absurd endorsements of suicide. The clip ‘Fun Ways to Die’ (with 1.7 million hits and counting) tells of many ways to commit suicide, including ‘telling your girlfriend her vajayjay smells like a skunk’ (http://www.youtube.com/watch?v=b1B8kizCjQA). I am sure the loved ones of those who have committed suicide by train are devastated to be told that their loved one was ‘dumb’ for choosing to die by train.

For a better, more intelligent and realistic understanding of suicide perhaps more attention to research-based evidence would be helpful (http://suicidepreventionaust.org/).
Of course, everything about this campaign contradicts the basics of what we know about suicide (https://www.sane.org/stigmawatch/for-the-media/media-resources/1007-summary-of-mindframe-guidelines-for-media-reporting-of-suicide). The Salvation Army, who know a thing or two about suicide, have instead developed a Metro Transit Team to respond to the issue (http://www.salvationarmy.org.au/en/Find-Us/Victoria/Melbourne614/melbourne614-services/SalvosMetroTransitTeams/). Many experts in suicide prevention argue that strategies like the ‘Dumb Ways to Die’ campaign are naïve and dangerous (http://www.dailymail.co.uk/news/article-2220230/Schoolgirl-visited-suicide-sites-dead-train-tracks-Campaigners-ban-web-pages-glamorise-self-harm.html). The experts ‘called for websites to be forced to remove content that glamorises suicide and self harm to help prevent any more deaths like that of the private school pupil from Hampstead’.

So, what commenced as a naïve and supposedly ‘clever’ attempt to respond to the dilemma of suicides in Victoria Metro may actually stupendously backfire. The ‘Dumb Ways to Die’ campaign may indeed promote harm rather than prevent suicide. This is what social psychology calls ‘associative meaning’, creating an illusory correlation in meaning between two concepts and expectations. The new videos, animations and games that have resulted from the ‘Dumb Ways to Die’ campaign more strongly endorse and validate suicide.

As for claims of success, if Internet hits are the judge of success then one could claim that porn is successful, as if ethics has no connection to activity. Surely we should be much more discerning about what amounts to success in risk and safety. As for statistical claims based on a 3 month sample, this too breaks most accepted standards on statistical validation. So before people attribute claims of success perhaps they should look more closely at purpose and the hidden tragedy embedded in naïve and ill-informed strategies in risk and safety.

Discerning Real Risk - Ten Themes

The idea of discernment complements the process of sensemaking and emphasises the value attributed to sensemaking, particularly from an arational focus. Whilst the concept of ‘sensemaking’ is very helpful in explaining how we make sense of things, it tends to have a very rational and cognitive focus. Discernment, on the other hand, helps explain how we place value in our sensemaking, particularly at a subconscious and unconscious level.

For the purposes of this book there are a number of themes associated with discernment that are carried throughout the text:

1 - Start with Critical Thinking and Sensemaking

In the case of the first story in this section about the pediatrician and paedophile mix-up, the first characteristic of discernment is the capability for critical thinking. A great deal of confusion about risk exists because of the ‘cult of the amateur’ and the validation of populist ideas about risk. The purpose of this series of books is to contribute to a more intelligent view of risk and sensemaking. Simplistic ideas about ‘common sense’ and monological goals about ‘zero’ simply muddy the waters about how humans make judgements and decisions about risk.

2 - Understanding the Human Psyche

The story of the lollyman highlight the arational ways humans value risk. The story of the lollyman captures all those moments in life when caution is ‘thrown to the wind’ and we chase things with a passion. This is what makes life so exciting, this is how life can be invigorating, this is why risk is
essential to learning. There is no learning without risk. In the first book much was made about trends in western society towards risk aversion and fear of risk. The realities of risk are much more complex than this. Sometimes, throwing caution to the wind, stepping out in faith, wisdom and luck and taking a risk, have been the key to great human successes in business, sport, science and many other walks of life.

3 - Embracing ‘Wrongology’

The story of the Star Amphitheatre in Balmoral Sydney highlights the fact that sometimes humans get it wrong and then defend their wrongness in a state of cognitive dissonance. The idea of cognitive dissonance (as discussed in Risk Makes Sense) captures the idea that in the face of all the evidence to the contrary humans can deny, explain away, excuse, ‘spin’ and self-deceive about reality. ‘Wrongology’ is often the key to learning. Sometimes people need to unlearn many myths about risk before they can learn about real risk. The problem is the failure to understand why humans makes mistakes, rather than blaming people for making them. For more on this, I recommend Hallinan, J., Why We Make Mistakes (2009).

4 - Risk is Attributed. What is Real Risk?

The story of the South Korean belief in ‘fan death’ highlights the fact that whole populations can misattribute risk, based on myths and populist ideas. So much of the attribution of risk is arational and non-conscious. This is why leadership should be far more attentive to this layer of influence, and why knowledge of pitching, framing and priming discourse and language are so important in the development of culture.

5 - The Social Psychology of Risk Enhances Understanding about Human Judgement and Decision Making

The study of fundamental attribution error is one of the essentials in social psychology. Social psychology is interested in perception, cognition bias, social collective attitudes, collective mindfulness, attitudes of populations and organisations, persuasion, cognitive dissonance, interpersonal attraction and social influence. One of the best places to commence a study of social psychology is Abelson and Gregg’s Experiments with People: Revelations from Social Psychology. Such study should be foundational to any claim to leadership in helping organisations engaging risk.

6 - Averting Risk May Only be Shifting Risk

The study of risk aversion and the mollycoddling of children illustrates the fact that tackling risk is a complex problem and any simplistic idea suggested to address risk may only be shifting the risk elsewhere. In For the Love of Zero research on Fly-in-Fly-Out (FIFO) and Drive-in-Drive-Out (DIDO) was discussed in the context of claims made by many tier one companies that follow the ideology of zero harm. The research shows that many people and families are harmed by the practice of FIFO and DIDO but that this harm is hidden and ‘out of sight’. In an understanding of the dynamics of risk trade off, as discussed in the first book Risk Makes Sense, it should be understood that there for every action there is an equally opposite reaction. This is often the case with claims about zero harm e.g. the increase in suicide, self harm, psychological stressors, psychosocial harm and mental health is rarely counted by advocates of risk aversion.
7 - Understanding Risk as a Wicked Problem

Discussion of trends in OHS in the United Kingdom (UK) through the actions of the Health and Safety Executive (HSE) Mythbusting Panel Flying Squad and 'watchdog', highlight the reality that a preoccupation with health and safety in society in general has created a monster. This is more than just the shifting of risk, and illustrates the absurd lengths crusaders against risk take in the ideological quest for zero harm. Unless there is an understanding that risk is a ‘wicked problem’ it is not likely that leadership in risk will be humanised. Understanding and tackling wicked problems is key to understanding the nature of risk and uncertainty. Wicked problems are problems that are intractable, multi-layered, highly complex, ‘messy’ and unsolvable. We will look further at wicked problems in Chapter 5.

8 - Think Different and Different Thinking

The campaign for Macintosh computers for many years was ‘Think Different’. The conundrum that marks the messy problem of the HSE in the UK demonstrates the need for new thinking in the engagement of risk. Perhaps what is required is not so much new thinking but the revitalising of some old thinking. The current problem in the UK is still a case of using old orthodox mentalities to try and solve a new wicked problem. The fundamentals of sensemaking and critical thinking are crucial. When a revolution occurs, generally it is because someone has dared to think differently about something. Where we find the will to step outside orthodoxy is where we find our creative artists, musicians and designers. The discerning of risk requires both wisdom and imagination.

9 - Learning Through Community

Individualism is the enemy of learning. Despite this, most of the ‘noise’ that floats across social media doesn't seem to qualify it as a learning community. Learning communities such as schools and universities create a climate for empathetic disagreement and respect for expertise. Social media tends to conform to the ‘cult of the amateur’ and the ‘pooling of ignorance’ paradigm rather than driving genuine learning. Most often the associations on Twitter, Facebook and LinkedIn are platforms for opinion but there seems little respect for researched expertise. Indeed, more and more the power of collective opinion seems to carry weight than the wisdom of a community of doctors and professors. This is not to say that academics are the only source of knowledge but in social media there is an increasing sense that everything is ‘just opinion’.

10 - Imagination and Exploration in Risk are Essential to Learning

More than ever we need to understand the unconscious in the way we make sense of risk. In the workplace there needs to be far more emphasis on the importance of creativity and imagination in thought leadership and learning about risk. The over-emphasis on rational-only assessments and the misunderstanding of intuition and implicit knowledge do not augur well for sensemaking and management of risk.

Naive approaches to managing risk do more harm than good. This is because many have little sense of the ‘trajectory’ of their decision. They can see, as it were, a few metres in front of their face but they don’t really know where things are going. This ‘risk shortsightedness’ is one of the problems with poor risk attribution and poor cultural analysis. The ‘Dumb Ways to Die’ campaign is a good illustration of a lack of imagination, not for what it achieved - an animation that went viral on the Internet - but about the by-products of such a campaign. Understanding the psychology of goals, wicked problems and the social psychology of risk is required if one wants to mature in understanding risk.
The notion of exploration does not sit well with a fundamentalist quest for certainty, and the control it requires to reach its goal of zero harm. Exploration is essential to the development of skills in creativity and innovation. Exploration requires the exercise of a faith-like knowledge and preparedness to wear the risk-cost trade-off. Faith-knowledge is not necessarily ‘blind knowledge’, but is associated with wisdom and maturity in critical thinking. ‘Checklist thinking’ is anathema to the creative and imaginative spirit.

Workshop Questions

1. What is your story of a common misunderstanding? Do you have your own zarsaberrries moment?

2. Think of some areas of activity that have involved a need to differentiate between minor things that can make a major difference. It could be a simple word or the press of a button that is the difference between health and harm. List some examples.

3. List a few habits that require ‘no thinking’, that you have learned to do ‘on automatic’. If you were to break down one of those habits into its thinking parts, what would each stage of the process look like? Don't choose something complex like driving a car but maybe brushing your teeth, for example:
   • Look at the tube of tooth paste
   • Locate it with your hand
   • Look at the toothbrush
   • Locate it with your hand
   • Grab the toothpaste, and squeeze to just the right applied pressure to extract just the right amount of toothpaste
   • Turn on the tap to just the right position and pressure and apply water
   • Look into the mirror, locate brush onto teeth, etc.
   You will see what I mean. How did we learn to do so much without thinking?

4. Can you think of any ways that we rob children of valuable experiences by being overly risk averse with them?

5. Have you got your own story of poor discernment in risk? Share it with your workgroup.
Transition

A friend recently applied to do family home day care to earn some extra money. She loves little children and has the perfect yard for supervision and play. In–Home Care (IHC) is a flexible form of childcare designed to accommodate the needs of families unable to access the mainstream option. In our area the IHC is managed by a government funded community service. As part of the inspection process my friend was told she would have to remove the lavender flowers from her garden, as the risk of a bee sting was considered too high. Perhaps we should eliminate all flowers from all gardens and flowers from trees because of the risk of bee sting? So here is the logic: when a child goes to day care the threat of bee sting is a problem, yet when walking around the wonderful parks and gardens of our city, with all its flowers and trees, it is not a problem. How will you know if your child is allergic to a sting if he or she doesn’t get stung? Fortunately, treatment for anaphylaxis is quick and easy: a shot of epinephrine (EpiPen) will relieve the symptoms almost as quickly as the bee sting brought them on.

Engaging with risk is the life of living. Risk is not the enemy and risk aversion is not the answer. Children simply require competent supervision more than a fear of flowers.

So what are the realities of risk? Can we teach others to ‘risk wisely’? Does the misattribution of risk create more problems than it solves? Can engagement with risk be taught and caught? What strategies are best when helping others engage with risk? Is there such a thing as leadership in risk? Where does risk aversion lead others? Can there be any ‘thought leadership’ in risk aversion and the ideology of zero? Can life be fun without risk? Can there be learning without risk? Can people mature through risk aversion?
What is life, without fun? - anon

Let’s just say I was testing the bounds of reality, I was curious to see what would happen. - Jim Morrison

Creativity is intelligence, having fun. - Albert Einstein

Introduction

This chapter is about the realities of risk. It draws from a range of real life experiences to illustrate the need for balance between fun and learning, and risk aversion. More and more the excesses of risk aversion in society are achieved by sacrificing fun and learning. Some of the stories in this chapter are centred around the nature of childhood, play, fun and adventure, all necessary attributes in any methodology of learning. Indeed, if we want to understand the nature of learning, then observation of the children's nursery is a good place to start.

In adulthood we tend to try and reclaim much from early childhood methods of learning. It is astounding to observe the extraordinary level of knowledge a child acquires in early childhood, without any formal educational structure. So much of what we do in learning after a dose of formal learning is about self-learning, modelling, play, creativity, imagination and experimentation. One only has to look at the school system and observe how subjects are prioritised to understand what happens to creativity, imagination and play.

The theme of learning about learning will be further explored in Chapters 5 and 6, as we develop the concepts of complexity, wicked problems and visual learning. For the moment, let’s explore the realities of risk in everyday life.
Billy Carts

When we were kids much of our learning came by experimentation, fun, adventure and trial and error. There was nothing more fun than making a billy cart and riding it down the street. All it took was some wood, a box, nails, rope and some old pram wheels or ball bearings. One of the challenges in making a billy cart was the steering and brakes. Comfort was not much of an issue; an old pillow or bit of foam would do. However, making a billy cart was not just about fun. It was also a competition between friends and neighbours to see who could make the best cart for the smallest cost. In the 1960s there wasn’t a lot of money to go around in our neighbourhood of Ashfield and Carramar, so we learned to ‘make do’. Sometimes the scavaging and scoring a deal was just as much fun as working out how to put the billy cart together. Of course there were always older siblings and uncles to give advice and lend a hand.

Figure 13. Older Brothers Bruce and Graham with a First Billy Cart.

Steering a billy cart by rope is a learning experience, not so different than learning the controls by levers on machinery. Stopping was often achieve by dragging a shoe along the ground or wedging an object in a wheel or on the ground. Sometimes you just crashed. It was good to know that if there was a crash there was no great anxiety by parents or mates; it was all a part of learning and risk. If you want to have fun, there is always a risk.

One of the good things about billy cart making and racing was progressing in prototypes, through crashes, remakes and improvements. By the time I was 10 years of age I can remember at least three developments and adventures with billy carts. Then on Christmas 1963 we were all surprised when Uncle Trevor made us a billy cart that was beyond all expectations. Uncle
Trevor was training to be an engineer and unbeknownst to us had secretly been on a project for several months, making the BGR Special (BGR was emblazoned on the side for Bruce, Graham and Robert).

Figure 14. The BGR Special

The BGR Special was more than just a knock-together billy cart. It still had no brakes and rope steering, but the box to sit in was more robust and didn't break if you crashed. The wheels were made by pushing bearings onto the axle shaft and this enabled some good speed downhill. Figure 14 is a photo taken by my dad of the three of us in front of our house at Ashfield where we lived on a nice sloping street. Many hours of fun, adventure, risk and learning were had on Carlisle Avenue hitting good speed down the footpath. This was experiential learning at its best, and we not only survived the challenges of this adventure, but thrived. Such experiences are missing in this day of risk aversion and zero harm.
My Fort is Better than Your Fort

A lot of the fun that children have involves a degree of risk, because learning and risk are flip sides of the same coin. Near my house in the suburb of Kambah in Canberra, adjacent to one of the many bike tracks in my suburb, is a tree ‘fort’ or ‘cubby’ that stands as a testament to fun (Figure 15). There is nothing more enjoyable than hearing the noise and laughter of the local kids enjoying the structure they have made. The cubby is linked to other trees by a matrix of ropes and pullies, all with buckets and communications systems.

Figure 15. Kambah Cubby

As kids there was nothing better than building a fort. It didn't matter whether this was done inside on a rainy day with chairs and blankets, or outside in the backyard with whatever you could lay your hands on without annoying Dad.

For part of my childhood we lived in Sydney where we were lucky enough to have a huge backyard. Epping was an outer suburb in those days and there were plenty of open paddocks and a building site next door. We would scavenge whatever we could to put together a fort and soon learnt what fell over and got a few knocks on the head. My friend built one in a tree. As I remember, our forts had lots of sharp edges, splinters, nails and bits of corrugated tin, sticking out here and there.

Although our fort-building was not supervised, our parents knew what we were doing but didn't police what we did. We were free to enjoy the activity and only had to make sure we came in at the right time for lunch or dinner (tea).

Then of course, there was the fun of raiding other kids’ forts and role playing with various ‘weapons’: swords and guns made out of bits of wood, sticks and tin. There was no plastic.
It was often more about the competition of the fort building than the role play which followed. We would admire the forts of others and the ideas that went into making them. I remember building one fort under the house despite the warnings from Dad about funnel web spiders. I was afraid of these spiders but the fort under the house had a side wall with removable bricks which could serve as a secret chamber and that seemed more attractive at the time.

When I became a parent we often travelled from Sydney or Canberra to Renmark, South Australia so the kids could visit grandparents for Christmas and other celebrations. My own kids enjoyed all the same fun on a 30-acre property in the scorching Renmark summer (36-40ºC) building ‘bases’. Again, we knew where the kids were and what they were doing, but we didn't police it and they learned a great deal while having a lot of fun.

Yes, we had the odd cut and knock and even the odd trip to Emergency for stitches, but there was no thought of stopping the activity. It was a risk we were prepared to take for the sake of learning.

Experts Warn about ‘Mollycoddling’ Children

The concept of ‘coddling’ comes from the idea of a comforting warm drink, a ‘caudel’. The concept of mollycoddling began to appear in writing in relation to over-protection, as in William Makepeace Thackeray Pendennis in 1849: ‘You have been bred up as a molly-coddle, Pen, and spoilt by the women’. Molly was also a name given in the 17th century for a homosexual man and it was believed that the disposition of being effeminate came from being over-protected by women. Since then the word has come to mean being over-protective, usually associated with the raising and parenting of children.

The ‘C&K Early Childhood Annual Conference - Children's Right to Childhood’, held in Brisbane on 28 May 2012, heard from experts warning against the mollycoddling of children. The notion was presented that risk-averse over-protection of children resulted in a predisposition to depression in later life. Despite evidence that it is actually safer to be a child today, children are receiving less and less opportunity to roam freely. Whilst the safety regulators ban ladders on building sites and working at heights, kids need to climb trees, build forts and run around. The experts warned that opportunities for testing resolve, resilience and mettle were diminishing amidst a climate of fear and regulated playgrounds.

Experts at the conference recommended allowing today’s children to have similar experiences as their parents in the 1960s-1980s. Although parents recall amazing adventures and explorations in risk and the creativity experienced in such fun, they have been made afraid allowing their children to have such experiences in 2012. One of the leading experts at the conference was Tim Gill, author of No Fear: Growing up in a risk averse society (2007). (Tim is also author of the ‘Rethinking Childhood’ blog, http://rethinkingchildhood.com/about/ - his book can be downloaded free from the site). Tim argues that a risk averse society ‘restricts children’s play, limits their freedom of movement, corrodes their relationships with adults and constrains their exploration of physical, social and virtual worlds’. He argues further that it disables their ability to develop resilience, learn, explore, adventure, cope with anxiety and stress, manage risk and be challenged in general.

You can read on Tim’s blog such fascinating pieces as:

‘The end of zero risk in childhood?’ (July 11)
‘Cotton wool revolution’ (Oct 07)
‘The extinction of the outdoor child’ (Sept 04)
What Tim says about play with children and the crushing effect of fear on learning, creativity and imagination, is also true for adults.

A news report reads ‘A Public Grammar School Where Kids Can Build Forts at Recess’ as if this is some kind of revolutionary idea. Indeed, it is an indictment of our risk averse system if kids building forts has to be something that we ‘regulate’.

Behind all this concern about risk for children is a more insidious problem: shifting risk. Sometimes the fear of risk causes a focus on one risk, and shifts the actual risk to a less visible arena. In the case of children and adventure, there has now appeared the very real problem of childhood obesity. As regulators have clamped down on physical risks such as playgrounds, children have moved towards more sedentary modes of activity. What is worse: a cut knee or broken collar bone, or early onset diabetes? This is the complex outcome of risk aversion.

Kambah and the Adventure Playground

I live in Kambah, the largest suburb in Canberra. It was first settled in 1974 as the first suburb in the satelit city of Tuggeranong, 20 kms south of Canberra city. Kambah was named after the original homestead in the district. West of Kambah is the Murrumbidgee River and the Bindabella mountains, and to the east rises Mount Taylor on the boundary of the suburb. Kambah was built at a time when the radical ideas of the 1970s were influential. For example, a number of cooperative housing projects were established in Kambah, some still remaining in a semi-communal state. A rather well preserved example of these is Urambi Village (Figure 16) where residents share a community, with an arts centre, a pool, a tennis court, play areas and open space bush surrounds.

Figure 16. Urambi Village Map
The suburb also boasts a 50-hectare community district (Figure 17), complete with a community woolshed (the last remnants of the 1875 structure - Figure 18), nearby community gardens (Figure 19) and numerous sports facilities. Kambah is designed around a number of district playing fields and a central flood plain. Kambah Pool also has a naturally formed rock pool on the river, popular for swimming in summer and the location of a nudist area established at the time of the suburb. In 2009, Kambah was voted one of the top ten ‘bogan’ suburbs in Australia, according to Punch Magazine.

One of the central features of Kambah is the Adventure Playground. This playground is unique because of its size and equipment: it has two flying foxes. Named after the Australian marsupial, a flying fox is comprised of a steel cable stretched between two points, with one end much higher than the other. The cable is suspended above the ground with a pulley attached and, holding on by hand, children ride by gravity down to the other end (Figure 20). The playground also has several super slides, super swings (Figure 21), a skateboard ‘half pipe’ (one of the first in Australia and heritage listed), and a range of moving play equipment that in many other places would be banned. The entire 10-hectare playground is not fenced. The district is directly connected to several schools and to the community in general via a network of bike paths.

Figure 17. Kambah District Park.
Figure 18. Community Woolshed.

Figure 19. Kambah Community Gardens

Figure 20. Kambah Adventure Playground Flying Fox
One of the delights about living in Kambah is that learning in risk is thriving. The adventure playground is hectic each weekend, it is so attractive to have fun and challenge learning in risk. Strange that construction workers aren’t allowed to climb a ladder or scaffold without a harness, must use an elevated platform over 1.8 metres yet kids can swing on the super swing at Kambah to 5 metres at speed. Such contradictions don’t imply the closing down of the Adventure Playground rather the absurdities of fear of risk in industry. The more such contradictions exist, the more scepticism becomes enculturated as the by-product of risk aversion.

Figure 21. Kambah Adventure Playground Super Swing

Don’t Cry Over Sour Milk

As a baby boomer (born between 1946-1964) in Australia I remember the Free School Milk Scheme. On 1 July 1950 the Commonwealth Minister for Health, Sir Earle Page, announced the ‘School Free Milk Scheme’, in which 7 million gallons (264,980,000,000 litres) of free milk was distributed to Australian school children. The concept originated in the work of Dr Cory Mann in Britain in the 1920s. Such a scheme had already been operating in New South Wales since 1941. Although the scheme was initially proposed for health reasons, it proved a boon for dairy farmers, helping consume a growing surplus in supply.

The distribution of the free milk was passed on to each state education department and involved extraordinary logistics and inter-state cooperation. Teachers opposed the idea because of the time required to implement the distribution in schools, but it went ahead nonetheless. By the time I started school 1959 in Sydney the scheme was in full swing. Every morning we had to line up to receive our small ration (one third of a pint, or 157mls) of milk, distributed by class ‘milk monitors’. The scheme cost more than a million pounds, perhaps $50 million in 2012 currency. It was a disaster.

The big problem with the Free School Milk Scheme was that there was no refrigeration. As a child I will never forget the sickly taste of every recess break. I remember the anxiety leading up to recess break and the stress associated with school milk. Recess was usually at 11am and
by the time the milk got to us it had been exposed to the elements for a considerable time. It was disgusting, curdled, sour and warm. The milk was delivered in metal crates each stacked with 24 glass bottles, the glass acting like a heater in the warm sun. We had to line up to receive our milk, drink it and return the empty bottle to the crate.

We were punished if we refused the milk, in my case a nice hard slap on the back of the legs. There was no point in mentioning the problem at home to parents who grew out of Great Depression austerity; that would only have led to a second belting for being ungrateful. So what do you do in such a predicament? You become creative, shifty, cunning and sneaky. Volunteering to be monitor was one of my strategies, hoping my accounting errors would help me escape the teachers’ scrutiny. We thought of everything: toilet breaks, bribing others, flavouring and all sorts of lies. In the early 1960s a company even developed chocolate and strawberry straws to try to make the ordeal more palatable. No flavoured straw could offset the horror of school milk. A lot of free milk went down the drain in those years. The scheme was discontinued across various jurisdictions in the early 1970s. To this day, I don’t like drinking unflavoured milk.

When something is not palatable regardless of its orthodoxy or policing, people always find a way around the problem. When orthodoxy doesn’t make sense, other ways make more sense. When risk makes sense, sometimes the pathways to safety and security don’t. Then when others take what seems to be an odd pathway in risk, orthodoxy responds with more policing as a solution, rather than question the foundations of risk. It took more than 25 years for the government to reverse its decision on free school milk, regardless of what the participants in the system thought. Sometimes the last people to redirect crazy decisions are those who are most affected by it. It could take 25 years before industry discovers the destructive delusions of zero ideology.

I am amazed at the stories of ingenuity, creativity and innovation from prisoners of war in World War II under the harshest of Japanese regimes. Despite all efforts at punishment, torture and violence the diggers were able to get away with all kinds of daring rule breaking. Even in a modern ‘state of the art’ prison such as the Alexander Machonie Centre in Canberra, it is extraordinary what contraband is seized and misdemeanors undertaken by prisoners in the face of punishment and threat.

Alexander Machonie Centre, A Lesson in Motivation and Risk

In 2010 I provided some training in leadership skills for staff at The Alexander Machonie Centre (AMC), the prison in the Australian Capital Territory (ACT), Canberra. AMC is a minimum to maximum security prison built in 2008 with an initial prisoner intake in March 2009. AMC is the first prison in Australia to be purpose built to meet human rights obligations. It was established by the ACT government within the framework of the Human Rights Act, with the express intention of ensuring that the punishment of imprisonment was specifically about the deprivation of liberty, rather than being also characterised by the host of prison-related hardships that are often experienced by prisoners in Australia.

AMC is a modern prison in design and technology, complete with iris scanning per weight on entry and exit. When someone enters the prison they stand on a platform to have their eyes scanned and the machine weighs the person, and these have to match on exit. AMC also uses a SOTARS machine (x-ray body scanner) to detect contraband. Prison workers carry electronic keys and GPS locating devices and sensors that set off an alarm if a worker is set off balance.
Despite the technology and sophistication in systems it is astounding how much contraband finds its way into the prison. In the training room where I worked for several days is a display cabinet with examples of this contraband. The creativity and ingenuity of the prisoners is extraordinary. Anything that could be made into an object for administering a drug is on display, and for every object on display many more get through the sophisticated and elaborate security system. It is a testament to the old saying: ‘Where there is a will, there is a way’. There is hardly any everyday object that cannot be put to use as a tool for the demand of a drug habit.

Figure 22. Contraband Found at AMC

The problem of substance and drug abuse in AMC is as problematic as in any other correctional facility. If one wasn’t drug addicted going into prison, it is fairly likely that they will be by the time they leave. Heroin is the drug of choice. When it comes to drug addiction, zero tolerance strategies don’t work, inside or outside prison. The cost (health, welfare, security and safety) of substance abuse and related problems inside prison is astronomical.

The Moore Report (http://www.phaa.net.au/documents/email/NeedleandSyringeProgramReportAMC.pdf) into safety and blood borne disease in AMC advocates a Needle Syringe Program (NSP) as the most effective way to combat the issue of substance abuse, related health problems and abuse in prison. The ACT Government supports the report’s recommendation as the only real way to address the motivating drive of drug addiction inside the prison. NSPs run effectively in many progressive prisons in Europe and are viewed by their advocates as the best way to maintain health and safety and diminish abuse and crime inside prisons. The custodial officers union opposes an NSP in AMC.

The following quote from the Moore report (p. 16, 2011) highlights just one problem associated with the motivational power of substance abuse in prison and related management:
'One of the main methods of drugs getting into any prison is understood to be through hiding contraband internally in body orifices such as the mouth, ear, rectum or vagina. In order to deal with this a draconian regime could mean body cavity searches of everyone entering the prison. Although some custodial officers have referred to new electronic surveillance equipment available at the AMC to replace body cavity searching, others indicated that although they provided a significant improvement, the system was by no means foolproof. Therefore, to be 100% effective all visitors would need to be subjected to this type of search. Custodial and non-custodial officers may need to look forward to starting their day in the same manner – hardly a conducive start to a day where people have a positive attitude to working with prisoners to achieve a rehabilitative outcome. The currently earned privilege of private visits would need to come to an end and prisoners would not be able to touch their loved ones. Rather than remaining close to families (a key element in positive rehabilitation) there would be a considerable disincentive for prisoners to have visitors. Not many would approve of their children or any of their loved ones visiting them if they could be subjected (even randomly) to internal examination. As unpalatable as it may seem to be, people desperate to use drugs do use extreme methods that include concealment in such things as babies’ nappies, tampons and devices carried in the rectum. Contraband, either the drugs or the paraphernalia, become very valuable items in the prison setting and desperate measures are used to achieve access.’

The key to combating the power of motivation in the case of drug abuse is to address the source of the problem. A friend of mine who was a police superintendent for 40 years told me one day that he believed 95% of all crime is substance related.

We can see from the AMC story that the management of the power of motivation and risk is no small or simplistic challenge. Unless the motivators of risk are addressed, rather than just the symptoms and outcomes, there will most likely be very little change in any society or culture.

What Does Self Harm Teach us About Risk

Travelling on a plane recently, I was seated beside a woman who was fidgeting with her phone. I noticed many scars on her wrists was reminded of what I learned from years of work in Galilee. Galilee is a school I founded for high-needs young people (12-25 years of age) in Canberra, Australia. The woman on the plane obviously had a history of self harming, something she shared in common with all the young people in Galilee.

Self harm is about intentional harm with or without suicidal ideation. It was first described in 1913 as self-mutilation, the pejorative expression having since been dropped, as we now consider such language to be neither therapeutic nor helpful. Self harm varies in intensity from picking, biting, cutting, ingesting, self flagellation, puberty rites, genital mutilation, head banging, body pain marking and constricting. The worst case we had in Galilee was a young woman who used to cut up razor blades with scissors and swallow the pieces to cut up her stomach and intestines. She regularly required hospitalization for internal bleeding and critical mental health care.

Difficult as it may be to understand, many forms of self harm are associated with pleasure and satisfaction. The causes are related to depression, anxiety, distress, guilt, eating disorders, bereavement, self-loathing, perfectionism, and workplace victimization, harassment and abuse. Self harm is often treated by the replacement of ‘medicated’ toxins, prescription drugs. In adulthood we often ‘self medicate’ on a range of accepted substances of choice, most commonly alcohol and tobacco. The truth is that mental health issues, anxiety and depression are at high levels in our society, as sources of self harm. Many of us self harm.
Self harming is often associated with young people (those aged 12-35) but in reality there is an evolution to adulthood in self harming which progresses to various forms of acceptable self harm. There are a range of self harming practices of which our society approves, such as religious rites (including genital alterations and flagellation), alcohol and substance addiction, smoking and over-eating. Anyone in the health and welfare industry knows that only harm minimization and tolerance work with these issues. People with addictions, psychological concerns and disorders are not motivated by nonsense goals and the language of ‘zero’. Small measurable and achievable steps are the key to improvement and motivation with these disorders and addictive behaviours. When it comes to self harm we know to set Specific Measureable Achievable Relevant and Time oriented (SMART) goals and also when to be silent about the attraction of self harm. We know counterintuitively that talk about self-harm needs to be strategic and thoughtful because of the social psychological by-products of goal setting. Like problems with the Dumb Ways to Die campaign, discussing suicide often promotes suicide.

What is most amusing about nonsense non-human goals that CEOs set for risk at work about ‘zero’ is that they promote unrealism, perfectionism and mythology. People preach such nonsense goals (with their own inbuilt psychology of skepticism and cynicism) then leave in the afternoon to self harm on cigarettes or other forms of substance or activity. During the day organisations sing the hymns and sermons of nonsense goals and then after hours their stressed executives hit the bottle or undertake other forms of self harm, to cope with the pressure and stress of having to work under such nonsense goals. Prescription and ‘self medicated’ substances are also in high use with executives. And what is the philosophy and values exhibited towards this behaviour? Not intolerance, but tolerance. Once again, nonsense goals always seem to be good for other people.

**A Case of Desensitisation - What Would You Do?**

There is no doubt that fear is attractive, not to experience first hand, but to observe in others. The popularity of the TV show Fear Factor is evidence of this. There is also a popular trend in the security and safety industries of parading before people the stories of others who have suffered in an accident. It seems a bizarre methodology that believes that ‘war stories’ are of themselves an effective instructional tool. One of my associates, David Holland, certainly fits into the category of safety ‘war stories’, which is why he and I are most concerned not to use his story for entertainment. The evidence shows that the shock and horror of stories like David’s have little lasting effect without follow-up skill development or supplemental learning. (To read about David’s story [http://www.theage.com.au/articles/2007/05/26/1179601723901.html](http://www.theage.com.au/articles/2007/05/26/1179601723901.html))

As much as horror stories can trigger ‘shock and horror’, they rarely result in substantial transformation. Similarly, Security and Safety Days without proper supported skill development are little more than entertainment. People are easily desensitised to shock and horror and soon distance is created in the mind of the listener, reinforcing the belief: ‘I’m not stupid. This can’t happen to me’. For example, much research has been undertaken on the effectiveness of ‘boot camp’ approaches to learning, only to show that such a model of training has little lasting effect. Most learning is only effective when it is longitudinal and relational. But I digress. Let’s return to the topic of fear.

We can learn something from this voyeuristic interest in fear, particularly with regard to how people become desensitised to it. Desensitization is simply the diminishing of emotional response to something. An understanding of the psychology of desensitization and automaticity is a very helpful start for leaders in managing risk, in learning how to manage and recognise complacency. The highest cause of fatalities in industry is not failure in technology, legislation or systems, but complacency. This is not a statement about personal blame, but rather a statement of the reality of what it is to be human.
It doesn't matter whether it's about marriage, friendships, a new car or a memorable journey, we eventually take for granted our experiences as a nature of human psychology. Now it's important to realise that desensitisation is not neutral, and neither is it always bad or good. Indeed, techniques of desensitisation are often used to help people overcome irrational fears or addictions. Repeated exposure is a technique for helping people and animals overcome all nature of fears. For example, this is how horses are trained to accept the fear of getting into a racing barrier. Even then we see many horses struggle with the experience.

We can also learn much from the study of phobias in themselves, that is the misattribution of fear to a risk. Both swings of the emotional pendulum (phobia and desensitization) need to be understood if we want to influence the attribution of risk in the workplace.

The more we understand the process of desensitization, the better we can prepare for, and intervene in, the mechanisms that support complacency. This is where skill development in observations is so important. We need to be skilled in recognising when humans function on automatic and when their senses have been desensitized to risk. We can't do this unless we become adept at observing and speaking in ‘workspace’, ‘headspace’ and ‘groupspace’.

We need to know what kind of environment, culture and climate are most conducive to desensitisation and complacency. This is partially what Weick means when he speaks about ‘managing the unexpected’. We can't do this without some skill development in observation and conversation. No system or checklist is going to help detect climate, environment or culture. Cultural assessment is very much a task of human observation.

Two Case Studies in Desensitisation

Recently I was talking with someone who works in an abusive bullying workplace, but didn't know it. Apparently, it was acceptable for one person (who we'll call Ted) to walk into the office, scream abuse at the top of his voice, smash and throw things and for everyone in the organisation to accept this as normal. Various excuses were made to laugh this off: ‘It’s just how Ted is’, ‘Ted calms down after a while’, ‘Ted doesn't mean it’ or ‘Ted's under huge stress’. Whatever spin we might apply, Ted's behaviour is abusive and causes significant distress in the workplace. People in this workplace ‘walk on egg shells’, tip-toeing around Ted for fear that he will explode. It was only when I articulated the problem that some began to see what they had become desensitised to. Most feared for their jobs, so made no comment, and in so doing normalised the desensitisation process.

Another friend was working for a civil construction company as a safety manager and had to resign because ‘Bill’ would not follow a safety directive. Plant had been tagged out and Bill (with similar violent antics as Ted) refused to comply with procedure and chose to hop in the machine and operate it regardless. When confronted his reply was, ‘I’m the boss. I can do what I like’. If something were to happen to Bill, I’m not sure the Nuremberg excuse (I was just following orders) would stand in a court. Bill continued using the plant for several days and in the end, the choice to remain silent on such issues resulted in condoning the behaviour. There is no neutrality in risk.

It's hard when you get caught between a rock and a hard place on such issues. There is often a costly trade-off when one speaks up. There is also a costly trade-off if something happens because one doesn't speak up. What would you do in either case?
Autopilot, Habit, Perception and Risk

Humans are creatures of habit. We habituate things so that we don’t have to think about them, they become ‘automatic’, these unthinking short-cuts are called heuristics. Social psychologists call this automaticity.

When I first learned to drive a car, I remember how anxious, intense and uneasy I was, in trying to concentrate on so much: the controls, changing gears, keeping vision on the road, the speedo, mirrors, covering the brake and accelerator, watching out for pedestrians, the glare of the sun and listening for noises and cues about all aspects of traffic. It was so easy to crunch the gears, stall the car and miss something despite the intensity of concentration. This is the condition of the novice.

Humans learn and habituate over time through repetition, trial and error. Eventually, when we do things by habit, we reach a certain level of comfort and ease in performing a task. We mentor people into driving and other complex activities so they can come to perform tasks with ease and comfort. Whilst we are developing proficiency, the mentor is the ‘fail safe’. In time however, the mentor lets you go and soon you are able to drive on your own with confidence and, in the case of some teenagers, overconfidence. After a few months, many of the things that previously required concentration are done automatically, without thinking about them.

Habits are not neutral; we have either good habits or bad habits depending on the by-products of the activity. Understanding habit formation, or habituation, is important for those who wish to lead in the management of risk and safety. Habits work on the process of a loop made up of a cue, a reward and a routine. As the loop develops, so too does the power of the emotion attached to the loop. In the case of substance or gambling addiction, the habit becomes a craving. It take some work to develop a habit, but it seems to take much more work to break one, particularly if an ancillary dependency is developed in the reward of the loop. This is how it is with nicotine habit; one doesn’t need to think about a smoke, one just lights up without thinking. To further understand the dynamics of habituation, Duhigg’s book *The Power of Habit* is helpful.

Habits also develop through the routines and repetition of the workplace. We develop work habits, skills to manage complex tasks without thinking. This automaticity has both an upside - the completion of complex tasks with pace, and a downside - reduced perception and the non-thinking state of autopilot. Teams and individuals can get so used to working in autopilot that they lose perception and perspective; it becomes easy to overlook things. This is when the presence of skilled observation, conversations and reflection steps in. You don’t know if someone is entranced in autopilot without having a conversation. A checklist simply won’t do. It’s pretty dangerous when someone is so habituated in a routine that they don’t notice changes due to turbulence in workflow. Autopilot can be trance-like at times, perspective can be lost, somewhat like day dreaming or dropping out of consciousness. How many of us have driven home on automatic, realising as we park in the driveway that we can’t remember much of the trip?

Here are few questions that will help challenge how well you and your workplace attend to and manage issues of automaticity and habit-blindness:

1. If you are in a process of supervision or observation what are the key indicators that someone is running on autopilot?
2. What would you be listening and looking for? Has your organisation mastered the culture of ‘chronic unease’ (Hudson), when it comes to high risk?
3. How do you know if someone was not alert in a complex, high risk task?
4. What questions would you ask and what would you be listening for?

5. Has your workplace normalised the observation and conversation process so that cross-checking is accepted and undertaken with skill, sensitivity, positivity and non-defensiveness?

6. What tools do you turn to if you sense someone is running on autopilot, particularly if perception regarding hazards and risks has diminished?

7. Or does your workplace culture blame and punish people for overlooking things?

8. Is a lack of perception attributed to ‘stupidity’ in your workplace?

9. Is reporting and observation understood as ‘learning’?

10. Are people trained in how to look for psychological and cultural hazards and risks in the workplace?

What are the Characteristics of Risk?

In this section we will look at the dynamics of risk and its characteristics.

RISK IS ABOUT UNCERTAINTY

Risk is all about probability in the face of uncertainty. Of itself it is not a negative concept; not all risk is bad.

When I got married I took a risk in the face of uncertainty. I knew so little about my partner, I just knew I was in love. As it happens, 38 years later, after a great deal of luck, hard work and time, we remain happily married and mates. No one could have taked to us about the risks that faced us on that day of marriage; we weren’t listening and our judgement was blinded by hearts full of love. Even if I had been able to hear what someone was telling me, I would have dismissed their assessment as peculiar to them with no application to me.

Some might say there is no certainty that a marriage will last, and that such an expectation is unrealistic anyway. Yet, despite such a volume of ignorance and such weight of faith and trust, many people step into the uncertain and get married.

We know that risk (and its degree) is not neutral, but is given value or ‘attributed’ its value. For some, marriage is so risky they won’t do it, whereas for others whose experience has been different the risks associated with marriage are rated quite low. The way we attribute risk to an activity is certainly not held in common; there is no common sense in this matter. My history of marriage is different from many of my friends, many of whom are now divorced. History and experience are great levelers of this nonsense of ‘common sense’.

In attributing risk, it matters a great deal whether I assess the risk, or someone external to me does so and imposes their assessment on me. The research shows that external risk is not taken very seriously; it has to be ‘owned’ to really affect us. As in the learning experiences of marriage and parenthood, there are certain limitations from just reading a textbook.

So when I go to weddings and write in a card or chat to the bride or groom, I speak of opportunities, learning, growth and maturity, rather than waste my time on risk aversion. I
discuss how an activity like marriage teaches you a great deal about yourself, how challenges make us who we are, how the most fulfilling things in life are loaded with risks. It doesn’t make sense to suggest to newlyweds that they will have my experience of marriage, or to talk to them about the disastrous marriages others have had. Much as we would all like to predict the future, we can’t. That’s the nature of risk. Stepping out in faith into the unknown, with a few communications skills, hope and family-infused heuristics is part of the journey.

Although the blessings of marriage can be many, so too are the risks. With so much uncertainty in marriage, some seek certainty through prenuptial contracts. This quest for certainty in itself changes the whole approach to the activity, and any reduction of uncertainty doesn’t make it any better. Indeed, some would say it predicts and creates the worst. Entering into a marriage with an insurance policy against risk, changes not only the way we think about the risk, but also the very meaning of the relationship.

**RISK IS ABOUT FUN**

The reality is that taking risk is fun. Fun and play are about pleasure, happiness and amusement, and are key elements of learning. One cannot ‘play’ unless a significant amount of the content and activity outcome is unknown. The opposite to play is risk aversion, wherein efforts are made to make every variable of an activity known and controlled. The joy of learning through play is the element of surprise and revelation. The attraction of games (for adults or children) is the mystery of the unknown, the human element and unpredictability. This is why gambling is fun, and why adults enjoy making money off the stock market. This is why we are thrilled when the underdog wins or when we win against the odds.

Risk aversion requires managing the unknown, which is why people associate it with boring, fun-less and pedestrian interests. The banning of risky activities, toys and actions is also the banning of fun. It’s fun to achieve against the risk of not winning. It’s fun to win and understand the margin of risk that has been overcome. It’s fun to learn about the balance of risk-for-benefit trade-off. This is what makes risk fun, why it is attractive and motivational. A failure to acknowledge this is a denial of the reality that risk makes sense.

The idea of play is not often used positively in adult learning, and is usually reframed as ‘experiential learning’. As Dr Stuart Brown of the National Institute for Play said in a 2008 TED talk, ‘If the motive is more important than the play itself, it’s not play.’ This does not mean that ‘work’ cannot be ‘play’, but that learning of itself is the goal rather than the acquisition of something else. You might want to have a look at the internet clip ‘TEDxManhattanBeach - Michael Shore - What is Fun?’ Michael Shore (PhD) is Vice President of World-Wide Consumer Insights at Mattel Inc. Shore. In 2010 Shore and Mattel did a world-wide study of ‘What is fun?’ in an effort to define fun. In the course of the research they interviewed thousands of children and began to see the coalescing and clustering of common expressions of fun. Here they are (ranked in order of priority):

1. **Sense of freedom** - unstructured voluntary activity with minimal constraints characterised by a strong sense of immediacy and living in the moment.
2. **Dreaming and imagination** - it’s about possibilities, pretending and an opening up not closing down. Research indicates that imagination on its own increases language, resilience, delayed gratification and learning skills.
3. **Being special** - this is about winning against the odds, of being lucky, privileged and exceptional.
4. **Belonging** - the security of acceptance is critical in the uncertainty of fun activities.
5. **Doing the unusual** - enjoying unpredictability and difference.
6. **Gaining knowledge** - the outcome of exploration, discovery and adventure. The sense of accomplishment from achievement of understanding, control and mastery.
7. **The aftermath of fun** - relaxing in satisfaction of all that was experienced in fun. This includes the enjoyment of reflection about the fun experienced as well as anticipation of the next fun experience.
9. **Passion and uniqueness** - standing out and showing who you are in self-expression. This is the joy of presentation and performance.
10. **Daring, courage and boldness** - This is the stepping out in faith into the unknown and the uncertain.

All these expressions of experiential activity bring fun. This is why most adults play games, sports, music and enjoy hobbies. Most of these activities step outside the world of work and are performed voluntarily at great cost to a person’s own time. Why? Because it is fun.

The fun of risk is in the trade-off-for-benefit factor, and is why shortcuts, edgework (see book 1) and sports are so attractive. In sport it is assumed that half of the fun is in risking injury, enduring suffering and managing the pain associated with winning and losing. Living with the outcome of risk is part and parcel of the experience.

The following story takes place in 1968 and the setting is the Rugby League Grand Final for Epping Boys’ High School, a school proud of its athletic and sporting achievements. The ethos of the school was that sports endeavour was essential to the ‘making of men’, an Anoldian tradition most associated with grammar school education. One could abscond from school and get a warning, but absconding from a sporting event would earn you ‘four of the best’ with the cane from Mr Cooke (the Deputy Headmaster) or Mr Thomas (the sportsmaster). If you didn’t have a note from your parents exempting you from sports, it was the cane on Thursday mornings.

I played in the under 8 stone (112lbs or 51kgs) Rugby League team at fullback. The weight limit only applied to Rugby League. Rugby Union was the ‘star’ sport at Epping Boys and was only limited by age and there were some big boys in my age group. I was a slight build but quite athletic at the age of 14, having represented the school in several sports at state level.

However, there was no greater accolade at Epping Boys than making the First 15 open Rugby Union team. In my time the school won athletics, swimming, gold, Rugby Union, Rugby League and numerous other sports for the state of NSW. Jack Newton was our school golfing star, and destined to be one of Australia’s greatest golfing champions, turning professional at 22 and winning the Dutch Open. Newton lost his right arm and eye and sustained severe abdominal injuries after walking into the spinning propeller of a Cessna aeroplane in 1983.

The 1968 Rugby League Grand Final was a torrid match. We were playing a school renowned for its dirty tactics and we knew we were targets for some rough stuff. With only half a minute to go and the score at 11-12 the opposing side decided to put up a ‘bomb’, an ‘up-and-under’. Without any thought for my own safety I went for the ball and jumped in the air for the ‘mark’. Unbeknownst to me, my winger did the same and we collided in mid-air, his mouth connecting with my forehead. The knock was shattering. Two boys from the same team, my head split open in two places by his teeth and his mouth split open by my forehead. Somehow, I held onto the ball, the whistle sounded, we won the game and two sore boys went to hospital for quite a few stitches.
When I finally got home that night to greet my parents it was considered all part of the trade-off for risk. If you don't want to be harmed, don't play the game. The injury was considered of little consequence - we won the premiership.

What motivates people to trade off injury for risk? How can this be called 'fun'? Is sport an imaginative and creative task? In order to answer these questions we must have some understanding of the fundamentals of motivation.

**Fun Theory**

Fun theory is best exemplified by the website www.funtheory.com. The idea behind fun theory is that people's behaviour can be changed if they are motivated by fun. In a range of experiments on the website people are inspired and motivated by fun to

- wear their safety belt
- dispose of bottles and recycle properly
- use stairs instead of escalators
- reduce speeding on the road and,
- clean up rubbish

The video clips and experiments are compelling. Why would one want to try and change behaviour through punitive means when creative and imaginative strategies of fun can be even more successful?

**FUN IS ABOUT FLOW**

Mihaly Csikszentmihalyi has been studying human enjoyment since 1963. The question he posed to himself was simple: What is fun? What makes some experiences enjoyable, and other experiences not? What Csikszentmihalyi discovered, as outlined in his best selling book *Flow: The Psychology of Optimal Experience*, was that people are happiest when they are in a state of 'flow'. Flow is when someone is so engrossed in an activity that they are no longer conscious of much else except the activity itself. Some people know this as being 'in the groove' or being 'in the zone'.

Flow is an optimal state of intrinsic motivation. This is when creativity and brilliance just emerge with ease. This experience is often recalled by artists, musicians, composers, sports people and writers. Flow is when the ego seems to disappear and the subject becomes ‘one’ with the art of focus and creativity. The person becomes so involved in their pleasure that they forget about everything else. Csikszentmihalyi argues that repression and fear diminish the human spirit and inhibit flow.

Here is my experience of flow:

You write because you need to and want to, not because you have to. There is an inner compulsion and energy that consumes you and you just write. In my younger days, while at University studying English in my first degree, I was consumed with poetry. Poetry is all about flow. When one is in flow somehow the right words and images just come.

I grew up in a musical family. At the age of 12 I was taught trumpet by my Dad, and also played guitar under the influence of my brother Graham. Music was a huge part of life in church and school, and for several years I was playing in three bands a week. This meant three practices a week and performances on the weekend. I also taught myself drums and my three
brothers and sister all played and sang together in natural harmony. We performed as a family group singing Peter, Paul and Mary hits as well as self compositions. My brother Graham is also a composer and in our university days we performed in several bands.

When I became a school teacher I realised that my interest in music and composition could be put to use. I wrote songs for school performances, musicals to teach History and music for performances on weekends in various bands. One of the musicals Time Demons (see Figure 25) was about the history of time and historiography. Rather than study history in traditional classroom focus we entered into history through performance. Three of my musicals were performed, won awards and were taken on tour. These were outcomes of flow not the reason for composing. The same energy and flow is required to study, complete a PhD or write a book.

Figure 23. Early Formation of Interest in Music and Performance - Aged 3

Figure 24. First Rock Band: The Light Brigade
Composition is all about flow. The fun is in being in flow and being in tune with something outside or inside of oneself. Flow is also about inspiration and aspiration, being motivated by something and then aspiring to do what one has been inspired to do.

Why this discussion about flow? One can also experience creative flow in work as opposed to feelings of drudgery and negativity. One can be so delighted and consumed in what they are doing, its creative energy and inspiring pace, that the troubles of life and related work issues can be forgotten in that moment.

These adventures and explorations in music are recalled because they all involved risk, not only in performance but also in self knowledge and fulfilment. The fun in risk is stepping out into the music arena and allowing others to judge whether you have succeeded or failed.

There are of course some clear links between risk and flow and the need for creativity and imagination in the management of risk. A quote from Alan Quilley taken from Linkedin is instructive:

I think it’s important to remember that measuring the lack of a negative to prove the existence of something else, lacks logic. Even more concerning is that Zero Injuries can be a false positive and when used incorrectly as it so often is, tells people to keep doing what they are doing... when that could be very unsafe indeed! Always measure what you create! We are much more successful when we create safety and shift from our prevent injuries mentality!
I’m a musician and when I play a song without error it can be and often is because I created an error free performance by what I did to create it. I celebrate an error free performance but I’m not surprised by it. Counting my errors doesn’t tell me what to do. Practicing and deciding on behaviours and tools I need to create the performance becomes EVERYTHING to the success I create. Someone with less practice can get through the performance without error by luck (I have certainly lucked out on less that perfectly practiced songs). So counting errors (or the lack of them) really isn’t a very good measure in this example or in safety.

The reason for discussing these experiences is to make the point that the benefits of flow and creativity are not just theoretical exercises, but things which have been demonstrated to be true in my experience. It is also to highlight the fact that people take risks in a state of flow without really being conscious of it. Once people ‘get in the groove’ (an emotional state) decision-making is blurred, the pace of events diminishing perception because it has been heightened in another area. Being in the groove is really enjoyable, it’s fun, but when we are in that state we take risks more readily.

**RISK TEACHES IMAGINATION**

Imagination is foundational to the management of risk, security and safety. Whilst countless material is written on systems and technocratic aspects of understanding risk, very little is made of the importance of imagination, especially in learning and in visualising the unexpected.

For some time now the military has understood the importance of imagination in learning (Williams, T., (2009) *Understanding Innovation*, Military Review, July-August). Williams comments that ‘the bureaucratic mind-set frustrates imagination and inventiveness’. He argues that the fear of failure limits innovation and that leaders need to ‘think big thoughts’ if they are to make successful innovation possible. Whilst not condoning the notion of war, it would seem crazy if the only organisation that could imagine and innovate was the Taliban.

The temptation in industry is to develop complex systems to the detriment of imaginative thinking. With increasing complexity of systems comes cognitive overload, ‘tick and flick’ and the ‘flooding’ of human consciousness. We often observe this in risk and safety systems development. In Australia in safety, the unquestioned quest for harmonisation has quadrupled the associated paperwork. It seems that no one is able to stop and take stock of what the continuing expansion of risk and safety systems is doing to productivity and the psychology of organisations and learning.

The research shows that there are very clear limits to just how much the human brain can process (Norretranders, T., (1999) *The User Illusion*, Penguin, New York). Yet, it seems that safety associations and professionals are so obsessed with legal and regulatory aspects of risk and safety that they have lost the plot on person-centred safety.

Robinson (Robinson, K., (2011) *Out of our Minds*, Capstone, West Sussex) states, ‘If a fire alarm sounds and all the staff head for the car park muster point, there is no organisation left in the building, it’s all in the car park’. He comments that the seductive machine metaphor of the industrial period is simply not satisfactory for the humanisation of organisations. When it comes to the management of risk and safety, our systems need to serve people not the other way around.

The more organisations systematise the management of risk, the more they lock in thinking about risk. Rather than ‘toolbox talks’ being about imagining possibilities they have become a process of ticking boxes and making announcements. Instead of conversations on site being about possibilities, they seem more focused on compliance. Rather than supervision being about learning, it seems that it has become more about policing systems. Then, when the unexpected eventuates, everyone’s
imagination is surprised. The response is often, ‘I had no idea that could happen’ or ‘I could never imagine that someone would do that’.

Much of our imagination operates in our non-rational mind and our subconscious. There is very little discourse in the sectors that manage risk about these elements of human decision making. In the rationalist world of systems overload, the activity of daydreaming and play are devalued. Yet, a vivid imagination is required to consider possibilities in risk. The ability to foresee possibilities is arguably a much more valuable asset in risk management than the ability to check boxes.

Unless there is a more imaginative approach to the understanding of human judgement and decision-making about risk, there will be more surprises as humans continue to be bogged down in systems.

The connection between risk, imagination, creativity and learning will be explored more deeply in Chapters 4 and 5.

**RISK IS ENLIVENING**

As kids we used to long for ‘cracker night’; there was nothing more exciting for a young boy than firecrackers! Some of the crackers we had access to were pretty big; four penny bungers and two penny bungers were an explosive that could blow apart a letter box, especially if more than one were taped together. There was much mischief achieved with fireworks in those days but also much innocent enjoyment and fun. I remember as kids we used to keep them under our beds, and would proudly display to others what we had purchased for cracker night. One night my brothers and I were comparing collections and somehow a match went into the box and the whole lot went off in the bedroom. What trouble we were in and what a mess to clean up, but it was such fun and so enlivening. When I speak to many baby boomers, we always reminisce about the good old days of crackers.

It is often at the edge of risk that humans feel enlivened. A brush with risk is how one knows one is alive. This is why people seek thrills in ‘edgework’ (discussed in Risk Makes Sense) or occupations that involve high risk. It seems odd that many in industry seek to minimise risk when the very employees they enclose in bubble wrap seek to increase it out of hours. Risk is not the enemy, the joy of life is in the management of risk not its elimination. Interestingly, selling fireworks is still legal in Australia’s Northern Territory (http://www.ntnews.com.au/article/2012/07/04/309651_nt-business.html).

**RISK IS SUBJECTIVE**

I made the mistake recently of suggesting to a group of risk managers that a discussion about the myth of objectivity was overdue. I was blown out of the water with the response that such a discussion was irrelevant! They all knew what they were doing, were experienced and had extensive audit tools to ensure objectivity! I particularly find this attitude in disciplines that are technocratic in nature.

Unfortunately, objectivity is a myth. The myth was dismantled by Michael Polanyi in 1946 in his publication *Science, Faith and Society* and in 1962 by Thomas Kuhn in his radical book *The Structure of Scientific Revolutions*. It was shown by Polanyi, Kuhn and now a host of postmodernist thinkers (including Heidegger, Foucault, Derrida and Baudrillard) that the positivist accounts of history and science could not be separated from the humans who participate in such accounts. It was the work of the Frankfurt School that showed that all communication is infused with politics, power and disposition. Indeed, the postmodernists argue that a lack of participation in the process of analysis
robs any communication of commitment and intimacy with the subject. The reality is, all data is interpreted and our interpretations rely on a host of cognitive, social and sub-conscious biases. This reality is enshrined in legislation and regulation about safety as ‘ALARP’, which stands for As Low As Reasonably Practicable. The legislation and regulation in the management of risk states that risk should be reduced to as low as reasonably practicable. How more subjective could it be? The same applies for the ideas of ‘due diligence’ and ‘common sense’, neither of which are ‘common’. Similarly, our assessment of what is risky or not is conditioned by a range of variables that are not shared in common.

Any assessment of risk is an emotional, arational and subjective exercise. Risks are not objective but are ‘attributed’. One person is anxious about one activity when the person beside them is not. Some people are confident with some high level risks and others are much more cautious. In Risk Makes Sense a table (p. 33, 34) and discussion (Is Risk Neutral?) were presented showing how various human biases aggravate or mitigate risk attribution. The idea that humans assess risk objectively or just calculate risk based on the common criteria in any risk matrix (exposure, frequency, probability and consequence) is not supported by the evidence.

One exercise I like to do in any worksite induction is to draw a line on a whiteboard and to get everyone present to introduce themselves by placing their name beside the highest risk activity they would be prepared to undertake. This is not only a fun way of getting to know people in the induction group, but also shows instantly that everyone in the room attributes risk differently. Each person then explains where their risk threshold is and gets a chance to explain their understanding of risk. In this way, in under 20 minutes everyone has shown everyone else in what ways ‘risk makes sense’ for them. This not only blows away the nonsense of ‘common sense’ but raises the importance of safety conversations with others. (You are more than welcome to take this idea and use it in your next induction. Tell me how it went.)

We know from social psychology that the way we attribute risk to various activities is in part affected by cognitive biases. The ‘availability heuristic’ and ‘probability neglect’ are two mechanisms that powerfully affect the way we attribute risk. Depending on what is ‘available’ to our memory or our senses, we magnify, distort or dismiss the value of certain risks. We downplay the probability of something happening depending on how distant our emotions are from the subject. This is also called the ‘recency effect’: people tend to overestimate risk if their experience of an event is more recent and personal.

Humans are emotional creatures, and when fear and anxiety are intensified people focus on the adverse outcomes more than the likelihood of that outcome occurring. This intensifying of emotions is where much human risk aversion originates. If you introduce this emotionally charged perception into crowds or through the media then mass hysteria and groupthink result, further distorting the real assessment of risk. You then find the general population becomes fearful of prowlers, immigrants, Islam or community violence even where the actual dangers of such things are decreasing. The problem is that availability and attribution factors make people fearful when they need not be, and fearless when perhaps more caution is required. These are only two of hundreds of cognitive biases that disable the discernment of risk.

So where does the myth of objectivity leave us with auditing and assessment? The keys are social awareness, communication, relationships-in-learning, communities of practice and self-awareness. Lone audits and assessments are okay, but don’t think you are somehow superhuman and objective. There should not only be ownership in risk by workers, but also by auditors. The more we try to ‘step away’ from something to try and be objective about it, the more we reduce our participation in ownership ‘with’ the subject.
All checklists are developed within the biases of the developers of the checklist. Sometimes it’s good to think beyond the checklist. The checklist is often the minimum in thinking, and can be very constraining to open and critical thinking. In the last couple of incident investigations I was involved with, the incident was found to have come about as a result of people not perceiving factors that were not on the checklist. Of course the solution by the crusaders for bureaucracy is to simply increase the size of checklists. But this doesn’t of itself increase the capability of people to think critically. Indeed the ‘flooding’ of people with checklists sometimes induces the opposite: learned helplessness.

It can also be a good idea to bring outsiders and novices on audits and assessment walks, for the very reason that they don’t think like you. There is nothing more dangerous to an audit or assessment than ‘confirmation bias’. We all like to have the agreement of others and the back slapping that ensues, but this also limits our capability to think outside the box. Maybe the apparently ‘dumb’ questions of others unfamiliar with your auditing bias are just what you need, particularly if you have been doing the same auditing processes for some time.

Finally, we should be self-reflective about our assessments and be prepared to admit our bias, as we invite the view of others into our decision making. Once you know that your auditing is biased you are then enlivened to the fact that you could sometimes be wrong and that even the participation of those being audited in the process might be a valuable strategy.

RISK IS ATTRIBUTED

Two central points of this book are 1) the attribution of risk (including the problem of fundamental attribution error) and 2) the discerning of risk (working out real risk). The idea that risk is objective and neutral ignores the fact that risk is all about the engagement (judgement and decision making) of humans with objects. I get amazed by various professions in the risk management industry (especially safety and security people) whose entire focus is the identification of objects (hazards) and the ‘energies’ of objects.

One can purchase countless audit tools and training materials on the identification of risky objects and contract expert auditors, engineers and technicians of objects who all have next to no expertise or training in understanding people, judgement or human decision-making. Social psychology is not high on the list of electives in an engineering degree.

What a crazy world we live in where we allow technical professions with no expertise in human skills, psychology or sociology to make decisions about what is risky or not! Objects on their own threaten no one; it is only when humans engage with an object that the object becomes a risk. Risk is determined by human judgement and decision making. For example, we wouldn’t ask a guillotine how it will hurt a human. We ask the human how they are going to engage with the guillotine.

It is in that conversation that we learn what the real risk is, that is, what risk that person attributes to an object or task. As the conversation continues we learn how they discern risk and manage risk, and this is much more important than the object itself.

RISK IS MOTIVATIONAL

Why do people not do as they are told? When the rules are clear and the procedures plain, why do people not follow them? It’s not rocket science. If a person is not motivated to do something, it may be possible to get compliance and obedience, but not ownership, and certainly not excellence.
People know that when a child is very young and powerless it seems like they will do anything, follow any command. Later as the child learns to be independent they learn to express defiance, non-cooperation and passive aggression. It’s a delusion to think you can make anyone do anything against their will.

The huge body of evidence from war and prison camps indicate that coercion, brutality and power only works in the short term and is unsustainable. The idea that somehow the Taliban will lie down and disappear over the next 100 years is just a nonsense in the face of history. The history of conflicts like the Irish and Indian ones shows that unless the opponent can be motivated to cooperate a conflict can go on for a hundred or a thousand years.

People under oppression will fight to the death rather than surrender to an imperial power. They work to break down their aggressor through guerilla tactics, non-cooperation, passive aggression and subversion. If people are not motivated to work with you or tolerate you, they work against you. The union movement throughout its history has successfully employed the strategy of withdrawal of labour, non-cooperation and ‘work to rule’ against the unreasonable power of capital control. It is much more sustainable (and requires less energy) to negotiate, collaborate and tap into the human will and motivate for cooperation.

So what is motivation? How can people be motivated, to follow rules, manage risk and develop ownership? In the following paragraphs, key essentials are highlighted in bold.

The first essential in motivating others is climate/culture/environment. Without a climate of acceptance, learning, belonging, respect and integrity there is little chance that anyone will be motivated. This is developed through an understanding of self and listening to others.

The second essential is an emphasis on learning. Organisations which don’t emphasise learning are usually not learning organisations. When you have a moment some time, look through your organisation’s documentation and do a search for the use of the word ‘learn’.

The third essential in motivating others is being long-sighted rather than short-sighted. Actions which gain compliance in the short term but resentment over the long term result from self-focused gain, not sustainable well-being. Longsightedness is the result of vision; those who can imagine where we are going and communicate it well inspire others.

The fourth essential is knowing that motivation can be both extrinsic and intrinsic. Intrinsic (internal) motivation, or self-motivation, is the more powerful, while extrinsic (external) motivation depends on others and is tied to an external pay-off. If the pay-off stops, the motivation decreases.

The fifth essential in motivation is ‘readiness’ (state of desire). Helping people to mature and catching them at a state of readiness is the key to development, change and learning.

The sixth essential is organisational meaning and purpose. People are rarely motivated by chaos and meaningless, but people who feel secure and positive are easily motivated. The key here is setting desirable and achievable goals.

The seventh essential to motivate others is diminished anxiety. People under distress (not stress) tend to operate out of their ‘shadow’, their least preferred capacity and skill. Looking over one’s shoulder for the policeman may motivate compliance, but this strategy drives mistakes through anxiety rather than effective concentration.

The eighth essential in motivation is to meet the needs and wants of the other. Maslow discovered that fulfilling the fundamental hierarchy of need is required before people can be motivated.
The ninth essential for motivation is **positive reinforcement**. There is nothing more motivational than recognition, acknowledgement, respect and trust.

The tenth essential to motivate others is an **understanding of human thinking, judgement and decision making**, along with people skills to act on that understanding and the counterintuitive nature of choice.

The work of Deci (1995) *Why We Do What We Do?* and Higgins (2012) *Beyond Pleasure and Pain*, are particularly helpful in understanding motivation. Leaders will not understand risk unless they also understand motivation. Far too often managers believe that motivation is just about ‘carrot and stick’, positive and negative reinforcement. This would make sense if humans were machines, but we are not. As Higgins points out, motivation is about much more than just the moderation of pleasure and pain, to understand risk leaders need to know that motivation is much more about value, truth and control. Unfortunately, the importance of understanding motivation as value, truth and control effectiveness will not be discussed in detail in this book but will be included in the fourth book in this series. Suffice it to say, an understanding of motivation, perception and human decision making are essential to the development of leadership in risk.

**RISK IS ATTRACTIVE**

When risk managers and safety professionals talk about risk, they generally demonise risk-taking. The reality is that risk is attractive. Humans are attracted to it and to deny this is delusional. This is why mantras of zero risk, ideology of zero harm and nonsense language such as ‘all accidents are preventable’, simply alienate humans.

Risk teaches us the level to which we are alive and helps us determine emotional regulation. It enables us to measure and understand personal autonomy and sensation seeking. It is the mechanism of learning. One cannot learn without risk. Growth, maturing, learning and living are what attracts humans to risk. This is why ‘zero’ ideology is life destroying and anti-learning. The boom in edgework and reality TV programs is evidence of a growing dissatisfaction with risk aversion.

**Phobias and Risk**

The crazy thing about the risk management industry is that it fosters a phobia about risk. We know that a phobia is an irrational fear of something. Unfortunately, there is such negativity associated with risk in the workplace that it has become a word indicating something wrong. The risk industry is so preoccupied with failures in risk and the quest for risk elimination that risk has become a dirty word. There is so little talk in our society about risk being good for you, or the humanisation of life through risk, or learning through risk.

In primitive days those who took the risks, the adventurers, reaped the greater rewards. The ‘nesters’, those who stayed home, may have lived longer but they didn’t experience the exotic fruits and travel that the new lands brought. Those who stayed home in the fortress didn’t gain new experiences. Yes, the adventurers may have died more often and lived shorter lives but they passed on stronger genes of survival to their offspring. As time passed the risk takers developed a better chance of survival against the enemy, understanding more about risk and where the edge was. The warriors-as-risk-takers attracted the stronger, more attractive women and their offspring were stronger and more competitive. Risk transmission is about survival of the fittest, and risk-taking drives dopamine production in the brain and contributes to a stronger gene pool.
Research in neuroscience tells us that the D4 dopamine receptor in the brain reduces anxiety about risk. The fewer risks one takes, the less of this hormone is produced by the body until a person becomes risk averse. One of the messages of this book is the need to get the balance right between risk/learning and risk/aversion.

To live, we need to take risks, we need to learn. Wrapping people up in cotton wool is not good for their development. The discourse about risk elimination is anti-learning. It should not be about ‘zero harm’ but about growth, development and managing risk.

The absurd state this has all led to is the reactive and nonsensical idea of banning things. If someone gets hurt by a tool, an object or a process, the orthodox response (usually by legislators and regulators) is to regulate it out of use, or ban it outright.

Anxiety and Fear Professionals

There are times when I think that the term Safety or Security Professional should be swapped for Anxiety and Fear Professional. The promotion of fear and anxiety distorts the capability of people to discern risk, often leading to the misattribution of risk. The following true story illustrates the point.

Suzie is an art teacher and has always been creative, motivating excellent work from her students. Her own art work is exhibited nationally. Last week Suzie and I were chatting about innovation in teaching, when she told me, ‘I don’t do that anymore. OHS’. My jaw fell to the ground and, after some questioning, I discovered that her school had been visited by a self-proclaimed ‘expert’ in safety. I have never heard of this person before, but apparently they specialise in safety in schools. I found out later that this ‘expert’ has no qualifications in safety but a degree in social work.

I am constantly surprised by the number of self-proclaimed experts in safety and security who hold minimum qualifications, perhaps a Certificate III or IV. What makes it worse is when gullible people and organisations, such as Suzie’s school, don’t even ask to see credentials or check referees. They just take these self-proclaimed experts at their word, attracted by slick marketing and Neurolinguistic Programming (NLP) tactics, and are impressed because the ‘expert’ can talk fear and gobbledygook about legislation and standards.

Following this so-called expert’s presentation on safety, every teacher at the school was shuddering in fear and anxiety about every safety responsibility and possibility in their work. Whilst I do think teachers need to consider risk in what they do, the production of excessive fear and anxiety about risk is destructive. The ‘expert’ presentation to the teachers was designed to generate a sense of ‘fear ignorance’ about risk in the audience, grooming for more follow-up consultation.

You might guess what followed. The teachers at the school urgently began making their teaching practice as passive and ‘safe’ as possible, limiting outdoor and ‘risky’ activities, e.g. regulating use of scissors, pre-setting up work that involved knives, packing away anything that could be deemed unsafe, banning camps, excursions, doubling playground duty and so on. What a wonderful recipe for negativity and non-learning in a school community.

All the research in medical and neuroscience tells us that anxiety and fear are not good for you. Excessive anxiety and fear actually makes you sick, and continuous anxiety and fear creates distress, putting pressure on your immune system and shutting down key body functions. Excessive anxiety and fear register as key contributors to many psychological disorders.
Why is it then that so many safety and security people believe that the strategy of shock and horror, fear and anxiety is successful? Where is the research to show that strategies of fear and anxiety generates ownership and long-term learning? Why is it that so much so-called safety or security training is about ‘war stories’ and fear of not following legislation? Why do people think that tactics of shock, awe, fear and anxiety are motivational? Why do so many believe that paperwork in risk ‘covers their arse’ in court when it doesn’t? Anxiety and fear professionals are the new cultural myth makers of this age.

There was a series of advertisements on Australian television by the safety regulator, with the strategy of ‘be safe or we’ll catch you out’. The basic premise of the series was that the regulator was the police. One ad showed the nonsense situation of people cleaning up the worksite for the arrival of the regulator, making sure everything was ‘on show’. So what the series of ads portrayed was the abnormality of the worksite. In other words, its only when the police are around that we display some sense of ownership for risk.

The promotion of ‘safety cosmetics’ as promoted in this series of ads ignores all we know from social psychology about ‘gain framing’, ‘pitching’ and ‘priming’ messages. The series, which is now thankfully off the screen, merely entrenched more deeply non-sensical myths about ownership, risk and learning.

A culture of fear and anxiety in organisations (usually fostered by psychological bullying and assault) is counterproductive, drives minimalist behaviour and creates relationship paralysis. The emphasis in strategy on emphasising abnormality in outcomes, ‘war stories’ and ‘shocker of the month’ promotes short-term anxiety but does nothing to promote long-term change, learning and ownership.

The research shows that the misguided tactic of the one-off shock presenter who was mangled in an accident has an effect for about six weeks. After three months most shock and fear campaigns have totally worn off. Without follow-up, skill development and relational-based change such strategies are about as life changing as a McHappy Day.

It’s about time workplaces rejected these tactics and rejected ‘fear’ experts, and focused instead on psychosocial influences. Understanding what motivates people and how people learn should be the beginning point for any person who wants to make a difference in risk.
Workshop Questions

1. Can you think of activities you did as children that involved risk and learning, similar to making cubby houses, billy carts and ‘backyard’ games? What were the risks involved? What did you learn?

2. How have playgrounds changed since you were a child? What would you change back and why?

3. Can you think of some motivations that are accepted in society that ‘approve’ of some form of harm? What are they and why are they accepted?

4. Can you think of an area of work, or life outside of work, where people have become either desensitised to risk or to various measures to control risk? Give an example and explain the desitisation process.

5. If risk is about uncertainty and fun, think of an example of something uncertain that is motivating, stimulating and risky.

Transition

Wouldn't it be good if all risk and its intensity was easily discernable? Probably not, because the balance of fun and adventure with uncertainty would remove from risk its fundamental dynamic. The next chapter explores this connection in discussion of the idea and attraction of adventuring. A study of adventurers is instructive because it demonstrates not only society’s fascination and adoration of risk, but also its idolisation of those it voyeristically treasures. A case study of adventurers stands in contradistinction to the flip side of a society that is preoccupied with risk aversion.
CHAPTER 3

Adventure, Exploration and Risk

Nothing ventured, nothing gained - anonymous (c 1374)

Many will call me an adventurer - and that I am, only one of a different sort: One of those who risks his skin to prove his platitudes. - Che Guevara

Adventure is Good for Other People

It seems our fascination with adventure is becoming more and more something to enjoy on television rather than experience in reality. As society trends toward greater risk aversion, so we also see the decline in youth development organisations. For example, Scouts Australia, despite a range of reforms (female membership, uniform change, relaxing Christian emphasis and marketing campaigns), declined from 85,000 members (2126 groups) in 2001 to approximately 60,000 members (1836 groups) in 2012. In 2003 when I was Manager of Youth and Community Services in the ACT, the Scouts required special extra government assistance to manage aspects of the decline in membership. A number of Scout Halls nearby in my suburb lie abandoned.

There is a close association between the development of imagination, creativity, insight, learning and the experiencing of adventure. This chapter explores the life and experience of a number of adventurers and shows how learning is the flip side of risk. Adventurers know about real risk, not voyeuristic risk. Adventuring is the schoolhouse for the development of ‘risk intelligence’.

Risk is not something one learns about from a PlayStation console. It seems that it is those who are prepared to risk who learn. In 2012, Australian Jessica Watson was the National Ambassador for Youth Week and in this capacity was used to market Scouts Australia.

Jessica Watson

Jessica Watson's story is a classic illustration of the way Australian society tends to view risk. How quickly we forget the beginning of her tale and the public and media ridicule she faced at the failed start of her adventure. Now what lingers is the memory of her success, her humility, being named Young Australian of the Year, her Order of Australia medal, her 'leggy' jive on Dancing with the Stars and the memory of an amazing feat. This is far removed from the opinion piece by Cosima Marriner...
(‘I’m glad Jessica Watson isn’t my daughter’, 2 October 2009, The Age) who roundly condemned Jessica for her adventuring incompetence.

In May 2010, Jessica Watson unofficially became the youngest person to sail non-stop and unassisted around the world. Watson departed from Sydney on 18 October 2009, heading eastbound over the Pacific Ocean, Atlantic Ocean and the Indian Ocean. She returned to Sydney on 15 May 2010, three days before her 17th birthday. During that voyage she not only had to navigate and sail Ella’s Pink Lady solo but had to make all repairs on her own. Her book, blog and FaceBook page all tell her amazing story (http://www.jessicawatson.com.au/_blog/Official_Jessica_Watson_Blog/).

In many ways Jessica Watson is one in a million, and yet at another level if you read her blog, she’s just another ordinary young person struggling with school and social life. But we know it wasn’t all smooth sailing for Jessica. The critics quickly came out when she crashed into the 62,000 tonne Silver Yang in early September 2009. The event was captured by the headline for The Punch entitled ‘Epic Voyage, Epic Fail’ (The Punch 9 September 2009 - see Figure 26). She was called irresponsible, cavalier and ignorant. Technically a child when she left, she was criticised by the Australian Childhood Foundation and prominent sailing experts who argued that she couldn’t know the risks involved (although she received praise and support from other adventurers and the likes of Richard Branson). Yet when she returned successful she was lauded as a ‘hero of Australia’ by the Prime Minister in front of 75,000 people at the Sydney Opera House. It seems that we praise only successful adventuring and condemn unsuccessful adventuring. Rather than encourage adventuring for the experiential value itself, it seems we make adventuring conditional on success. (An unfortunate footnote to Watson’s story is that her voyage was not recognised by the World Sailing Speed Record Council (WSSRC) due to technicalities.)

A case study of Jessica’s story captures the nature of sensemaking about risk in our society. We laud praise on the successful risk taker and heap scorn on the unsuccessful risk taker. The successful risk taker is a ‘hero’ and the failed risk taker ‘an idiot’. Similarly in the workplace the successful risk taker is a ‘champion’ and the failed risk raker is punished. This is because we have yet to learn how risk makes sense, to understand that risk is essential for learning and maturation.

What made Jessica an adventurer? Wikipedia (retrieved 27 May 2012) states:

Watson was born on the Gold Coast in Queensland, Australia. The second of four children of New Zealand couple Roger and Julie Watson, who moved to Australia in 1987, she has dual Australian and New Zealand nationality. She has an older sister (Emily) and younger brother and sister (Tom and Hannah). All four took sailing lessons as children, and the family went on to live on board a 16 metre cabin cruiser for five years, the children being home schooled via distance learning. When Jessica was eleven and they were still living on the boat, her mother read Jesse Martin’s book Lionheart: A Journey of the Human Spirit to the children as a bedtime story. This led to Jessica forming the ambition at age twelve to sail around the world too.
Dick Smith

Dick Smith is described in Wikipedia as a ‘entrepreneur, businessman, aviator, and political activist’ but this tends to downplay Dick’s fundamental drive as an adventurer. Two years before founding Dick Smith Electronics in 1964, at 18 years of age Dick sailed with a group of Rover Scouts to Balls Pyramid in the Pacific Ocean – the highest sea spire in the world. Ball’s Pyramid is 20 kilometres southeast of Lord Howe Island in the Pacific Ocean. It is 562 metres (1,844 ft) high, while measuring only 1,100 metres (3,600 ft) in length and 300 metres (980 ft) across, making it the tallest volcanic stack in the world. On this visit, Dick and the group failed to climb the Pyramid. However, in 1980 Dick returned and climbed to the top. It is a fundamental of risk taking that one learns how to manage failure and develop resilience.

It is interesting to note in the only biography on Dick that he enjoys bushwalking and knows of a cave that no one else knows. He says, ‘It’s more beautiful than any cathedral. I go there and sit and look at these beautiful trees. And I dream of adventure and things I’m going to do’ (Gash, p.3). Dick was not successful at school but where he failed in one endeavour, he turned to another to find his fulfillment and success. Dick also failed a number of attempts at further study, he failed the administration test for a traineeship at the Department of Civil Aviation, he tried University but dropped out after two lectures, and failed his apprenticeship with Weston Electronics. As each door slammed shut, Dick looked to other activities. He climbed mountains in Switzerland and spent some time in England. When he returned to Australia he met Pip, fell in love and got married. When he sought to return to Weston Electronics he learned that Manly Taxi Radios were not renewing their contract. So Dick decided to take over this service himself.

In 1968, he founded the electronics retailer Dick Smith Electronics. He learned to fly in 1972, graduating to a twin-engine Beech Baron, and in 1976 competed in the Perth to Sydney air race. In 1978 he purchased his first helicopter, a Bell Jetranger. With it he made a record-setting flight
from Sydney to Lord Howe Island and return, a 1185km journey. In 1982, he sold his business to Woolworths for $20 million. In 1983 Smith published the book *The Earth Beneath Me* which described his solo helicopter flight around the world. Two documentaries were also filmed during the flight, and a third one soon after. In 1986 Dick decided to fly to the North Pole but his first attempt failed 670 kilometres short of the Pole. He made two more attempts and succeeded in April 1987.

The list of Dick’s adventures is extensive. In October 1991 he was the second person to fly over Mount Everest, Australia’s highest mountain. In November 1995 he climbed the most remote of the seven summits, Carstensz Pyramid in Irian Jaya. In February 2000, Dick and his co-pilot John Wallington became the first people to successfully complete an east-west crossing of the Tasman Sea by balloon, from New Zealand to Australia against generally-prevailing winds. In 2006, he flew his Cessna Grand Caravan from Sydney to Hari Hari on the West Coast of New Zealand’s South Island to mark the 75th anniversary of the first solo trans-Tasman flight by Guy Menzies in 1931. In 2008 he and his wife Pip completed a two-and-a-half year drive around the world. This journey of over 40,000 kilometres was made by road vehicle.

Dick Smith holds many awards and has held several prominent public positions. He is known as a strong advocate for the environment, justice, adventuring, philanthropy and risk, and supporter of many causes (including generous support of the Wayside Chapel in Sydney). Some of the things he stands for bring him into the public limelight and into conflict with governments and authorities.

Earlier in the introduction to this chapter we explored the connection of adventure with the scouting movement. I never was a scout and have no vested interests in Scouts Australia. But Dick Smith has said, ‘I owe a lot to Scouting. It had to be the most fantastic influence on my life. It taught me responsible risk-taking’ (http://www.scouts.com.au/main.asp?iStoryID=848). On 10 December 2008, in the centenary year of Scouts in Australia, Dick Smith and his wife Pip presented Scouts Australia with a donation of one million dollars in a ceremony at Scouts Place in Circular Quay, Sydney. On that occasion Dick said, ‘I want Scouts to promote responsible risk-taking amongst young people because as a nation we are ensuring our kids grow up in strait-jackets, where they take no risks ... As a boy, I enjoyed camping and climbing in Scouts. I accept there is going to be a risk involved but Scouts are best placed to help manage that risk and now, more than ever, we need to stop wrapping our kids in cotton wool and let them discover their true potential’.

The remarkable success of Dick Smith is testament to the fact that risk makes sense. As a risk taker Dick learned much about life, resilience and perseverance. He supports these lessons in life because he knows that risk aversion doesn’t make sense.

**Sue Fear**

I first met Sue Fear on the speaking circuit. We quickly became friends when she found out I was something of an expert with a Macintosh computer and she was in need of syncing her presentation slides with a data projector.

Sue was a small woman with a huge passion for adventure. She was one of Australia’s most notable female mountain climbers. Between 1997 and 2006 Sue climbed five of the world’s fourteen 8000-plus metre peaks. Her climbing career took off in 1997 when she led the first successful ascent by an Australian team of Makalu II (7,680m) in Nepal. She followed this with ascents of Cho Oyu (8,201m) in 1998 and Shishapangma (8,046m) in 2002. Sue was named Australian Geographic’s ‘Adventure of the Year’ in 2004.
In 2003, Sue became the first Australian-born woman to climb Mt Everest (8,848m) from the more difficult Tibetan (north) face. On the day Sue and I met she presented on the Everest climb and on her passion for adventure and learning. Sue was the first Australian born woman to climb Mt Everest. When I listened to her I was amazed at her expertise, ruthlessness in preparation and planning, and her inspirational energy.

Not long after I met Sue at a conference for an insurance company she died (28 May 2006) descending from the summit of Manaslu in Nepal where her body remains as per her request. Of the 4000 people who have attempted to climb Mt Everest, 660 have reached the summit and more than 140 have died. Mountain climbing is a high risk activity.

Sue was a 'larger than life' person, and was in demand on the speaking circuit because she inspired others. Sue spoke against risk aversion, and promoted teaming, imagination, creativity, trust and the need to embrace life. What is strange is that Sue was often speaking to organisations that promote risk aversion and zero harm as their mantra. Isn't it odd that organisations that promote risk aversion choose to be inspired by risk takers when they organise safety days. I refer to these days as McHappy Day, heavy on bubble and hype, but light on learning and substance for their employees.

Sue is remembered on the website dedicated to her memory, http://suefear.org/.

**Adventuring and Risk Intelligence**

What makes these people and many like them seek adventure, creativity and risk? The key elements are passion, dreams and imagination. Passion is about that ‘sweet spot’ where meaning, purpose, energy and will all come together in action. People with passion don’t talk about what they are going to do, they do it. They consider the risks of course, but they don’t allow risk to defeat them or limit their endeavour. Robinson (2009) calls passion ‘the element’ (*The Element: How Finding your Passion Changes Everything*). When one discovers this element it seems that nothing hinders the pursuit of the ideas and dreams of adventurers. This state is not to be confused with the ‘law of attraction’ that will be discussed later in this chapter, but ‘the element’ defines purpose, meaning and the energy needed to achieve.

The opposite of passion is limitation. Limitation thinks of why things cannot be achieved and is risk averse. Limitation stuns creativity, imagination and adventure. Limitation thinks of all the reasons why something cannot be done rather than why it should to be done.

It was 6 July 1957. A two boys aged 15 and 17 met at a fete in Liverpool. Paul attended the Liverpool Institute where, rather than study, he devoted the majority of his time to listening to rock music and learning the guitar. John went to Quarry Bank School on the other side of Liverpool and was interested in skiffle. John lived in a suburban district called Penny Lane. He was a clean cut boy in a poor city. He confessed to dreaming in Hieronymus Bosch and Dali, saying he looked forward to it every night. He said that he ‘daydreamed’ his way through school. One Maths teacher wrote of John: ‘he’s on the road to failure’.

Paul saw John on stage with the Quarry Men at the fete and later joined him backstage where they jammed for a bit. Pete Shotton asked Paul if he wanted to join the group. At their first gig Paul was asked to do a solo and froze. So George was brought in. Paul knew George from catching the bus together each day. Later they would take on an older guy called Ringo to play the drums and form The Beatles. The Beatles, named in 1960, were not an instant success, but they had ‘the element’, the passion to do what they needed to do regardless of success. In 1961
The Beatles met Brian Epstein who had a shop called NEMS (North End Music Stores). Epstein started a process of professionalisation and discipline including change in dress and marketing. The Beatles remained a nothing little band for several years playing in Liverpool and Hamburg.

In his book *Outliers*, Malcolm Gladwell puts forth the premise that to be an expert in a field requires a devotion to one’s craft for at least 10,000 hours. Gladwell explains that between 1957 and 1964 (when the Beatles performed on the Ed Sullivan Show) they averaged 180 nights of performing 5 or more hours per night per year. Add to this endless practices and composing and there is your 10,000 hours. Many of these hours were in The Caven and The Kaiserkeller in Hamburg in front of audiences that only grew over the years.

The success of the Beatles is astounding. They remain the best selling band in history with sales of over a billion units. They had more number one hits in the top 100 than any other band before or since. As a young Australian, I remember The Beatles holding every spot in the top 10 and every number one for a whole year. All this success was not achieved by limitation goals and prevention thinking, but rather through adventure, risk and achievement goals.

Gladwell also recounts many other successful stories of the 10,000 hour theory, applying it to such people as Bill Gates (founder of Microsoft) and Bill Joy (founder of Sun Microsystems).

Living in Adelaide in the 1970s, I often used to go and see a band that was to become one of Australia's most successful rock bands in history, AC/DC. Several times in 1974 I saw them for free in a YMCA hall with an audience of 30. After the show, you could wander out the back, jam and chat to Angus Young, Malcolm or Bon Scott. You could also chat to Bon at his job selling records in a Flinders St record store in Adelaide. Previously Bon was lead singer for a band called Fraternity. It wasn't until 1978 that AC/DC began their rise to mega stardom. By 2012 AC/DC had sold 200 million units world wide, and when I saw them play in Sydney in 2011 with three of my children and 80,000 others, there was not much chance of going backstage to renew old acquaintances. I think they had done their 10,000 hours.

The work of Howard Gardner (*Frames of Mind*) established the idea of learning intelligences. This was discussed in the first book *Risk Makes Sense* in Chapter 4, Learning, Motivation and Risk. One kind of intelligence not considered by Gardner is that of ‘risk intelligence’. This was first proposed by Dylan Evans in 2012 in his book *Risk Intelligence: How to Live with Uncertainty*. Put simply by Evans, risk intelligence is the ability to estimate probabilities accurately. Sometimes we talk about intuition and making an educated guess or a 'guesstimate' of something. This is where risk intelligence comes in. By taking calculated risks, adventurers gain the ability to imagine possibilities, the likelihood of those possibilities and the probability of those possibilities. One develops risk intelligence by taking risks, but risk aversion ‘dumbs down’ learning and diminishes risk intelligence.

Whilst Evans doesn't directly articulate everything essential for developing risk intelligence, the following list can be inferred from his work:

1. Recognising overconfidence (hubris)
2. Entertaining doubt
3. Worst scenario thinking (see also Weick's five points of collective mindfulness)
4. Understanding the availability heuristic
5. Cultivating intuition
6. Keeping track of what one learns
7. Learning to observe (in rational and non-rational space)
8. Learn how to gamble (play poker)
9. Learn to tolerate ambiguity
10. Foster imagination and play
11. Increase and encourage diversity of opinion
12. Take prediction tests
13. Play estimation games and monitor results
14. Play ‘truth or lie’
15. Know your propensity to follow fads
16. Recognise exformation (what information is absent) and information
17. Develop the art of critical thinking

Ben Carson and Lessons From Risk

Supporting these essentials, but without directly articulating them, is the excellent book by Ben Carson, Take the Risk. Carson states that in our society ‘security has become an obsession’, despite the fact that we know that all of us one day will die. He states (p.8):

Anyone who refuses to test his limits, anyone unwilling to move out of her comfort zone, is destined to live life inside the envelope. The most important developments in science, history, technology, and the arts came from taking risks.

Carson's book looks at the downside of not taking risks. He is an African American neurosurgeon and Director of Pediatric Neurosurgery at Johns Hopkins Hospital. He was awarded the Presidential Medal of Freedom, the highest civilian award in the United States, in 2008 by President George W. Bush. He is one of the top neurosurgeons in the world and is famous for surgical innovations in his field, including the first intrauterine procedure to relieve pressure on the brain of a hydrocephalic fetal twin, and a hemispherectomy, in which a young girl suffering from uncontrollable seizures had one half of her brain removed. In 1987, Carson made medical history by being the first surgeon to successfully separate conjoined twins (the Binders) who were joined at the back of the head (known as craniopagus twins). The 70-member surgical team led by Carson worked for 22 hours. By the end, the twins were successfully separated and able to live independently of each other. He has many awards including over 61 honorary doctorate degrees in recognition of his brilliance and pioneering work. However, all this pioneering work has had a cost. In his book he recounts many stories of occipital craniopagus twins (joined at the head) like the Bijani twins who, for the choices set before them, took the high risks for the sake of a better life. He describes the conversation with the Bender, Banda and Bunker twins and the comment that ‘death would be better than continuing living like this’.

Carson illustrates that risk is about trade-offs and discusses in depth the reasons many of his first operations were unsuccessful and what he learned through failure. Failure in this sense meant the death of one or both of the twins. Carson had to try many things that had not been done before, and designed special new instruments and operating tables to do his work. Neither Carson, driven by his strong Christian convictions to help, nor the families, had to take such risks, but they all wanted to. There are always competing goals in any situation. Black-and-white choices like those preached by the proponents of zero harm are rare indeed.

Ben Carson is also an adventurer, not an explorer like Dick Smith or Jessica Watson, but nonetheless an adventurer. Carson spent his life stepping out into the unknown and uncertainty in risk and
thereby contributed greatly to the current successes of neurosurgery. Carson was diagnosed with cancer of the prostate in 2002. His story is a wonderful illustration of the concepts of Acceptable Risk and As Low as Reasonably Practicable (ALARP). Risk-taking involves the weighing of alternatives and in Carson’s story the alternatives of misery were often weighed against the possibilities of death.

What is Learned Through Human Adventure, Exploration, Imagination and Risk

The benefits of adventure are extensive and humanising, which is why many service clubs, service learning organisations and voluntary organisations support the idea. Service learning is a way of learning by doing, a practical learning strategy. Service learning involves the activity of serving others and the community. Getting out of one’s own cocoon and serving others involves a range of risks, but they are far outweighed by the benefits. Most of the learning that comes from service of others is incidental but powerful. Experiential learning of this kind gets into the unconscious; one learns intuitively about the risks associated with serving others. Learning about risk in this way is a form of social psychological literacy. For example:

My wife volunteers with the Red Cross to home-visit people with a mental health and resultant physical health condition. It is rare that people with extensive mental health problems only have the one condition. They often have medication and substance issues as well as physical disabilities. I have experienced similar complexities with long-term unemployed. My wife visits her assigned ‘friend’ each fortnight and in so doing exposes herself to many risks of a physical, psychological and emotional nature. Voluntary service of the disadvantaged is not for the faint-hearted. After each visit my wife and I often debrief over a coffee about what she has learned by her relationship. It is not until we talk it through that many of the learnings of the encounter are ‘unpacked’. One need not debrief to understand what is learned in incidental and experiential learning, but it is often helpful and revealing. My wife would say that she always gets more out of her relationship with this person than she gives. It is a risky but humbling experience.

Through joint service and adventure we learn a great deal about ourselves and others. It doesn’t matter whether this is with a church, Scouts, Red Cross or school. One of the most important benefits of adventuring is learning about self and the art of calculated risk. Other skills acquired through adventuring include:

1. The value of teams and service
2. Development of the imagination
3. Creativity and learning
4. Coping with failure
5. Coping with mistakes
6. Learning not to blame and project responsibility
7. Paradigms of non-adventure and exploration
8. The psychology of goals
9. The development of relationships and exploration
10. The building of learning through calculated risk
11. Learning about probability and accountability
The development of learning in service organisations and adventuring organisations is often through mentoring and ‘scaffolding’, following what some might call an apprenticeship model of learning.

A Special Note on Scaffolding

The idea of scaffolding in learning is not that different from scaffolding in the construction of a building. Scaffolding is the construction of a supporting structure (requiring a firm foundation) and surrounds the building of a structure. Once the building is constructed, the scaffolding is removed. The idea of scaffolding in education came from the thoughts of Lev Vygotsky, a Russian psychologist and educator. Vygotsky wrote in the 1920s and 1930s but his works were largely ignored in the West because of his association with Marxist education. During the 1930s Vygotsky was greatly influenced by Kurt Lewin, considered to be the father of social psychology. Vygotsky published The Psychology of Art in 1925.

Vygotsky’s pioneering work investigated child development and learning but his thoughts on learning are applicable to people of all ages. His philosophical framework includes insightful interpretations of the internalisation of knowledge, introducing the idea of zone of proximal development (ZPD). ZPD is the space where one either lets go or is on the edge of skill mastery. ZPD is the space where risk is taken, the known scaffold is there for support but the unknown development is in construction.

One of the classic illustrations of ZPD is learning to ride a bike or to swim. Usually kids under five receive bikes with trainer wheels, and they learn to balance, peddle and enjoy the freedom of independent movement. Then at some stage parents or carers make an (often intuitive) judgement that the trainer wheels can come off. Then comes the arduous task of coaching, walking and holding and letting go of the seat until the moment comes when the child can ride by themselves. However, this is not the moment of full mastery but just the beginning of a new journey of mastery. Later, as greater competence is obtained, more adventurous endeavours can be made like riding on the road or doing tricks - ‘See, no hands!’ Similarly, with swimming one generally uses a floating device of some kind and over time gradually lets go until the confidence and skill are ‘right’. It is usually the adult or more skilled coach who knows (intuitively) where the ZPD is and this enables the letting go. The idea of ‘throwing in the deep end’ as an effective model for education is a recipe for disaster and unnecessary injury.

All apprenticeship and coaching models of learning understand the ‘feel’ for the ZPD. Teachers, parents and coaches know how to ‘scaffold’ around this zone and help build confidence, capability and competence. Understanding ZPD and scaffolding is essential in the engagement of risk, particularly in mentoring and coaching others.
10,000 Hours, Expertise and Wine

As discussed in Chapter 2, Gladwell in his book *Outliers* proposed that expertise, or unconscious competence, requires at least 10,000 hours of experience, learning and engagement. Gladwell’s model is an excellent way of understanding engagement with adventure, capability and risk competence. A story about Keith is illustrative.

Keith is a colleague, friend, mentor and mate. I first met him when my son Rick and I were looking for an Apple computer for his music studies in 1995. We noticed an ad in the Canberra Times and responded, not knowing that we were not only buying a computer but I was about to make a life-long friend.

Keith is a member of Mensa, the not-for-profit organisation committed to the identification of intelligence. He was wearing a T-shirt that day with a Mensa symbol on it, but I didn’t know what it meant. We bought the computer, and struck up a friendship when we had to return the next week to ask for some help. Rick and I didn’t know much about Apple computers.

I had bought my first Apple, a Macintosh Classic, in 1991. From the moment I bought it I realised one could ‘think differently’ with such a computer. These days I think the Mac vs PC debate is really a reflection of Left Brain and Right Brain thinking. It’s not about right, wrong or which is best but rather how each machine helps certain brain dispositions think. This common interest in Macintosh was the initial impetus for my friendship with Keith, but it soon deepened through a shared love of philosophy, music, thinking and wine.

Our friendship is not about agreement. Keith has travelled and lived in every corner of the globe, I have not. Keith loves astronomy and I have little interest in it. He has some rather interesting views about the cosmos and spiritual revisitation which I don’t really understand. But there’s one thing for sure – he doesn’t arrive at a position or point of view cheaply. Keith worked in The Australian Department of Foreign Affairs and was the Deputy High Commissioner to Malta. His many postings were to quite different cultures including Argentina and India. Whilst in India he had the experience of being an extra in the making of the movie classic
Ghandi. He can be seen driving the car during the scene where the horses are ordered but fail to trample the workers.

Keith is expert in several things and has spent his 10,000 hours in a number of areas, including becoming a wine aficionado. When I first met Keith I knew precious little about wine; you just drank it and made sure it didn't taste like vinegar. I grew up in a family which was anti-alcohol, my father having watched his own father die because of it. Keith understands wine, I do not. I hear the language used about wine but don't understand it. I used to think it was all about snobbery and pretentiousness, but now I realise I am just consciously incompetent of what it means to understand wine. Knowing what one doesn't know is called the 'Fodor Paradox'. It is paradoxical that to learn one has to know what one doesn't know.

However, I have begun to understand and become conscious of what I don't know. Another friend, Shawn, gave me a bottle of Clonakilla Shiraz Viognier from his best friend Tim Kirk as a gift (valued at $200) and I drank it on a special occasion. I still couldn't tell that I was drinking a wine of such exceptional and unique value. What I do understand is Tim's philosophy of wine (http://www.clonakilla.com.au/index.php/story/) and for that I have some level of competence.

So from philosophy, theology (Tim is a committed Catholic), wine and my friendship with Keith, I learned much more about what is required to become competent. Aversion is the enemy of competence and keeps one in a state of unconscious incompetence. Indeed, unconscious incompetence is a major contributing factor to disconnectedness from risk. This will be discussed in the following chapter.

The reason why some people do not understand why adventurers adventure or why risk takers take risks has a lot to do with being stuck in unconscious incompetence. I wrote about this in the previous book when confronted by an armchair expert in ADHD and at-risk young people. I find it often in training, meeting people who do a short course, watch a TV show or read an article on something and then become unqualified experts on it. LinkedIn groups are perhaps the worst example of this phenomena. This is the disappointment when confronted by immature and poorly informed CEOs and so-called leaders who set the agenda for risk in organisations. It is often the case that people get promoted to levels of management because of expertise in their particular field of knowledge but have no expertise in people management, communication, psychology of risk or the social psychology of culture. And how does one attain competence in risk if there is little knowledge (experiential and theoretical) in engaging in risk?

**Risk Intelligence as Competence**

The development of expertise and intelligence about risk is critical in understanding and managing risk. One doesn't develop risk intelligence via avoiding risk, but rather by embracing and learning about it. You may be familiar with the Competence Framework diagram (Figure 29) that identifies the four stages of developing competence (expertise). In this case I am using the words competence and intelligence interchangeably. When one is competent in understanding, embracing and managing risk, then one is also risk intelligent.

Confusion is the result of a lack of discernment, minds running at cross purposes. Discernment requires not only knowledge, but a knowledge of limitations, what Donald Rumsfeld referred to, in his classic speech about the Iraq war on weapons of mass destruction, as the 'known unknowns'. How can one know what one doesn't know? Usually one has to be shown or taught what one doesn't know, or perhaps can discover what one doesn't know, but it is all a matter of revelation. One can't learn the unknown without a disposition of learning and risk, stepping out in faith into the unknown. Figure 28 'Unknown Unknowns' illustrates this.
Figure 28. Unknown Unknowns

It is when one gets to the stage of unconscious unknowns that one is able to unconsciously exercise what is known. This is the stage of demonstrated unconscious knowledge, that is, where the knowledge is so integrated into one's being that the exercise of that knowledge emanates unconsciously. Again, this brings to mind Gladwell's 10,000 hours. See also Figure 30, The Competence Framework.

Figure 29. The Competence Framework

When one becomes competent in risk and learns to discern real risk from unreal (or misattributed) risk then one can be more confident in tackling the unexpected or engaging with uncertainty. This makes one not only risk intelligent and competent, but mature in discerning risk.
When I look at what preoccupies the programs of conferences and training in risk, security and safety, I can’t help but think that to be an expert in risk you only need to be a lawyer, a bureaucrat or a police officer. In some organisations the idea of a safety position doesn’t even exist anymore. Rather, organisations have adopted the language of ‘zero harm advisor’. This was discussed in the second book For the Love of Zero. How can one advise on perfection and the absolute, when the agents of action are fallible humans? If someone is a ‘zero harm’ manager, does he get the sack if anyone is harmed?

When safety and security people get into the field and begin to converse with ‘people on the tools’, they realise they need many skills that were not included in their training, including:

- effective communication and collaboration skills
- the ability to observe and analyse
- critical thinking skills
- pastoral care and empathy
- understanding human decision-making
- understanding and generating motivation
- knowing the fundamentals of learning
- knowing the psychology of risk
- understanding culture
- expertise in team leadership
- knowing how to influence decision-making, and
- managing organisational politics

When the fresh and enthusiastic graduate first starts work and encounters someone who is not motivated to risk and safety ownership, what do they do? Perhaps they ask a school teacher who has undertaken extensive studies and field work in the nature of motivation and learning?
When a person walks into the office of the security advisor and talks of bullying and unsafe work practices, where do they go for skills in pastoral care? Perhaps the local clergy who have done extensive studies and field work in counselling and listening?

When the conflict of production over risk raises its head, and the politics of expediency and double standards is confronted, how is it managed? Perhaps they call on the local politician who could educate about the poison of politics? The list could go on but you get the idea. One does not develop risk intelligence with a Certificate IV in safety. One doesn't develop risk intelligence by 10,000 hours of regulation compliance.

Why is it that so much of the work of people in risk is seduced into the process of legality rather than the humanisation of risk? Has the management of risk become so much of an 'arse covering' exercise that the real intention of helping humans navigate risk is being lost? Have we become so consumed by the 'cosmetics of risk' that we no longer know how to create and influence ownership of risk at work?

When Risk and Safety Takes the Moral High Ground

In May 2013 the University of Adelaide School of Population Health called for 'better training of teachers in safety' (http://www.newsmaker.com.au/news/25554). According to the research, 'teachers responsible for safety education use varying approaches and often lack confidence in the topic'. The lead author, Associate Professor Dino Pisaniello, Head of the Discipline of Public Health at the University of Adelaide, is quoted as saying, ‘This research highlights a need for a standard, targeted program for training teachers in this area’. The research was funded by SafeWork South Australia.

A month later Youthsafe (a NSW youth organisation) called for the introduction of safety education in schools (http://www.abc.net.au/news/2013-05-30/risk-taking-young-brains-prompt-calls-for-workplace-education/4723756). According to Youthsafe, specialised workplace safety education needs to be provided for young people, whose brains are still developing, to protect them from injury in the workplace. Spokesperson for Youthsafe Duncan McRae stated that ‘when they are in the mentioned phase they tend not to consider safety in the workplace like wearing PPE, risks with driving vehicles or equipment or the dangers of machinery that they may be using ... It's not intentional risk-taking, it's just their emotions tend to override their safety thoughts’.

What is fascinating about these two reports is the astounding lack of involvement in the debate by schools and educational psychologists. This illustrates a concern I have about the blindsidedness of the risk, safety and security professions. Blindsidedness is about being blind to what one doesn’t know ie. not having experienced the Fodor Paradox. It is extremely easy to attain a qualification in risk or safety; some can be attained in five days (http://www.nsca.org.au/Safety_Training__Education/Education_and_Qualifications/Cert_IV_in_Occupational_Health__Safety_/Certificate_IV_in_Occupational_Health_and_Safety_B.aspx). With such a qualification one can easily become a ‘safety crusader’. All you have to do is focus on regulation and checklists.

I remember taking part in a discussion about safety curriculum in schools on Linkedin, and was astounded in the light of the vigorous nature of the debate, that no other participant had any expertise or experience in curriculum, adolescent development, schooling, teaching or education. What they did have was a passion for safety, and it seems that this is qualification enough to override the free will and expertise of others, especially teachers, educators and students.

Here is the problem: there seems to be a belief that when it comes to risk and safety all rights to learning and development are rescinded. Everything must come second to the holy mantra of risk.
aversion, thus giving risk and safety the moral high ground over all things. It is as if there is no life or thinking outside of the risk and safety bubble and that being in that bubble provides a mandate for supreme authority over subjects in which one has no experience or expertise. The following key points highlight why the idea of adding a subject to the school curriculum called ‘Safety’ and/or ‘Risk’ simply doesn’t make sense:

1. Training in concepts without context (the workplace) or developmental maturation contradicts the psychological fundamentals of childhood and adolescent development.
2. The Youthsafe approach (that acknowledges the formative brain and mind) is contradictory in campaigning for a safety training curriculum for adolescents whilst at the same time acknowledging adolescents have a biological clock oriented toward risk. The idea that a formal subject should be the method for addressing this innate drive for risk is illogical.
3. An already oversaturated school curriculum has no place for a formalised subject called ‘safety’.
4. An understanding of youth and school culture is the best way to tackle the complex problem of adolescent risk disposition.
5. The teaching, education and school community already know about risk and learning and don’t need safety and risk crusaders who know little about schooling to meddle in school curriculum activities.
6. Educators, teachers and curriculum experts know and understand the ‘hidden curriculum’ and educate children about risk across the entire curriculum. Subject separation in this case disempowers the very dynamic of education about risk and learning.
7. The risk and safety industry, preoccupied as it is with bureaucracy, legislation, regulation and the ‘cosmetics’ of risk and safety, would be counterproductive to the holistic education of young people and children about risk.
8. The confusion of risk and safety cosmetics with real risk and safety has the potential to inoculate young people and children against the real message of learning to manage risk rather than avert risk. The ability to discern real risk is predicated on engagement with risk. Risk aversion in the long run creates a climate that leads to poorer recognition of risk.
9. There is already enough anxiety about risk and safety and risk aversion associated with child and adolescent development. See the earlier discussion about mollycoddling children.
10. If a new subject called ‘Safety’ or ‘Risk’ was brought into the school curriculum, what current subject would be taken out?

Goal Setting and Risk - The Non-Sense of NAPLAN

Whilst on the subject of schools and learning, it may be instructive to digress into the minefield of assessment and goal-setting. In 2008, the National Assessment Program - Literacy and Numeracy (NAPLAN) commenced in Australian schools. NAPLAN was a politically-driven initiative of the Australian Labor Party, with little expertise in learning or the philosophy of education. Many academics and the majority of educators opposed it, including the Australian Education Union. However, the Government attached NAPLAN to massive injections of new funding for schools, and so it was accepted.

The proponents of NAPLAN argue that standardised testing emphasises the importance of literacy and numeracy, enables progress to be tracked over time, keeps teachers accountable, distinguishes areas of weakness for individual students on a national scale, identifies curriculum areas for whole
school planning, is reliable, and improves learning. The argument by NAPLAN advocates is that NAPLAN is good.

Why are we discussing a standardised test in schools (SATs – Standardised Assessment Tests) in a book about risk? This is important because NAPLAN is a clear demonstration of how goals and systems are not neutral. NAPLAN illustrates how hidden forces, by-products and ideas operate underneath the overt goals of a system. This is what learning experts for years have known as the ‘hidden curriculum’, that which is learned unconsciously in the process of experiencing an overt activity. NAPLAN is an excellent study of how counter intuition, the unconscious and psychology of goals need to be factored in to goal-setting. It shows how non-learning can be promoted as learning, how non-risk can be promoted as good, and how the nonsense of goal neutrality is advocated. If we don’t understand much about the psychology of goals we end up with systems like NAPLAN. The idea of standardised testing has been around for more than a century and it cycles in and out of educational politics. NAPLAN will probably take a few years until the by-products become most visible and then probably another 10 years before it is eradicated. It was already apparent 5 years after it was brought in that NAPLAN has made no difference to the education system in Australia nor the achievement of Australian children compared to other OECD countries. Though the mechanism of ‘sunk cost effect’ more resources are being ploughed into NAPLAN despite the evidence that the most successful countries in education, such as Finland, abandoned standardised testing years ago.

In 2012 the then Prime Minister, Julia Gillard (previously Education Minister under the Rudd Government) had been strongly influenced by the ideas and approach of Joel Klein, Chancellor of New York City Schools. Critical elements of NAPLAN are copies of US initiatives. Teach for Australia is based on the Teach for America program; NAPLAN (the National Assessment Program – Literacy and Numeracy) and the My School website are based on programs introduced in New York by Klein. Gillard openly names and attributes much of her philosophy of education, NAPLAN and My School to Klein. Yet as Zyngier states:

   In the US today, even the most ardent proponents of the No Child Left Behind Act have recanted their belief in its policies. These policies failed, and yet they are still being touted by Australian advocates.


NAPLAN is a great example of the adage: to a hammer, every problem is a nail. Yes, there are problems in the community with literacy and numeracy but is NAPLAN going to make a difference? There are also overwhelming issues with a lack of creativity, adaptability, imagination and critical thinking in the workplace. The blind establishment of NAPLAN is a trade-off: conformity (a banking model of schooling) for the possibility of innovation, imagination, creativity and learning. Indoctrination and schooling are not education and learning. The illustration Figure 31 shows how such trade-offs in goals work.
Diane Ravitch, a traditionalist conservative educator, is a strong critic of standardised testing. A research professor of education at New York University, Ravitch is a respected historian of education. She was also a proponent of the key ideas behind the Bush administration’s test-driven ‘No Child Left Behind program’. In her recent book *Death and Life of the Great American School System* (2010) she states:

On our present course ... we are disrupting communities, dumbing down our schools, giving students false reports of their progress, and creating a private sector that will undermine public education without improving it. Most significantly, we are not producing a generation of students who are more knowledgeable, and better prepared for the responsibilities of citizenship.

The famous educator and presenter Sir Ken Robinson argues that the current approach to schooling ‘kills creativity’. Robinson, the most frequently requested and popular speaker on ‘TED talks’ argues strongly against the notion of standardised testing.

This discussion is not so much an argument about NAPLAN itself but of how trade-offs in goals work.

Whilst NAPLAN accumulates test scores in literacy and numeracy it also:

- Narrows the school curriculum
- De-emphasises the creative subjects
- Drives teaching to test mentality
- Shapes mechanistic teaching and learning
- Rewards and assesses the lowest order in thinking
- Makes no improvement to educational results
• Drives the funding of schooling away from innovation, creativity and adventure
• Promotes ‘checklist thinking’
• Promotes negativity and scepticism in the system
• Promotes conflict in the teaching profession
• Promotes the cult of the amateur; parents and media now become experts in the methodology of learning; populism results

Whilst the research is overwhelming, so too is the recent evidence that NAPLAN is poisoning the education system (O’Keeffe. D., Playing the Game, Education Review. May 2012. p. 5). Goals are not set in isolation, and binary logic in goal-setting without consideration of by-products is naive and harmful. Proponents of NAPLAN share similar logic to the binary fundamentalism of zero harm.

One of the most amusing aspects of the NAPLAN nonsense approach to learning is that the alternative school I founded for high risk young people, Galilee, is on the ‘My School’ website and in the NAPLAN system in order to receive funding and registration. If you read my first book Risk Makes Sense, you will understand the dysfunctional attributes of the young people in this school. The naive nonsense that suggests that these young people require literacy and numeracy as a priority has no understanding of how social psychological dysfunction works. Whilst counting and reading were problematic for the ‘at-risk’ young people in Galilee, these were not the cause of their problems. Young people who sexually predate on little children, who sexually assault animals, who are addicted to narcotics, light fires and commit unrestrained acts of violence to others don’t need to know how to better count their victims!

How quickly we have forgotten all that was established by the de-schoolers, free-schoolers and un-schoolers in the 1970s. We have much to learn from them and the work of Palmer, Ravitch, Sloan and Claxton. I still have many of the books which were standard reading in teacher education in the 1970s, some of which are listed below for those interested in the fundamentals of learning:


Macklin, M., (1976) When Schools are Gone UQP, St Lucia.


The push for standards and testing in schooling is well researched and such a regime has been shown to favour the wealthy and certain cultural types. For years educators have known that school success can be predicted by postcode (or zip code). I guess this too will take the 25 year cycle to realise that standardised testing doesn’t work and that simplistic goal setting creates new cultural by-products that will require a new vision in 25 years time.
Understanding and Supervising Young People at Work


However, developmentally one doesn't enter youth or exit into adulthood by definition, formula or some 'scientific' time scale. In reality (and also as defined by some governments), youth can be experienced between the ages of 10 and 35 years of age or an even wider range. Due to changes in diet and other societal issues some young girls are now experiencing puberty as young as 8 or 9 years of age. Developmental maturity is not something that works like mathematics or engineering; humans all develop differently. One could have a very mature 16 year old and an immature 35 year old on the same work team.

So what are the characteristics of youth and how does this knowledge help us understand and supervise young people to help them manage risk?

1. The starting point for all supervision is an understanding of self. Supervisors need to know their own biases, prejudices, views of discipline, maturity and expectations before they can competently supervise young people. Many times the mismanagement of young people is not about them but about a non-reflective adult who naively believes that they are objective and infallible. One of the foundations of effective supervision of young people comes from knowing one's own weaknesses.

2. Communication and people skills are vital in the supervision of young people. Whatever you think you say is not likely to be what they hear. Supervisors need to understand that young people have many filters that affect the way they hear the messages with which they are bombarded. The idea that you can supervise young people without any training or experience in communications or people skills is an absolute nonsense. One can either accept that young people are who they are and hear what they hear, or attempt to communicate with them naively and then punish them for not listening.

3. The primary focus of supervision should not be on content but on establishing trusting relationships. Most young people leaving school today are sharper and more savvy about technology and learning than many of us who experienced 'spoon feeding' in schooling. Indeed, inductions that are monological and boring like the 'white card' are next to useless. The idea that data dumps equate to learning is also nonsense. The last people to be delivering 'white card' training should be ex-inspectors and safety crusaders who have no training themselves in teaching, learning or relationship building. Receiving training in training is not the same as education and learning. As for on-line learning - true learning is not about reading comprehension. A test at the end of a data dump is next to meaningless, unreliable and delusional.

4. When working with young people one cannot assume that the provision of information means learning has occurred. Supervisors and trainers in industry seem to have a strange perception
that a PowerPoint presentation, a manual, war stories and talking to someone leads to learning. When one begins to establish a relationship with a young person at work, the best thing to assume is that the induction was ineffective. Unfortunately, you can't start from the beginning either or this will be understood at patronizing and condescending. Poor inductions and poor training do more damage than good, as they create the illusion that the young person has some knowledge about something. Go back to the basics of relationship, ask good open questions and listen. This is the only way you will learn to know what they know and influence what they should know.

5. Risk is all about venturing into uncertainty with imagination and (limited) experience. For the young person, uncertainty and risk suggest excitement, decision making, independence and autonomy. Every supervisor needs to know that risk is attractive for young people.

6. The last thing a young person (or anyone for that matter) wants is micro-management. The dynamic move from dependence to independence requires extensive skill and insight. The language of ‘monitoring’ and ‘correcting’ is not helpful when supervising young people. You might think it, but don't say it. If you establish an effective and trusting relationship with the young person, you don't need to ‘monitor’ or ‘correct’ them. Young people respond best to effective coaching (not the yelling from the sideline kind) and advice. The language of ‘policing’, ‘force’ and punitive fear doesn't connect with young people.

7. Supervisors need to understand that talking about fines, authority and fear is not attractive to young people, who are more characterised by rebelling from such things. Such talk is alienating and de-motivating. Effective supervision that engages young people is more interested in establishing independent thinking and ownership than talking about fear and compliance. The important thing is to be sure that this young person can think and own their decisions about risk when the supervisor is not around.

8. With young people, the concepts of scaffolding and the ‘hidden curriculum’ (as discussed earlier) are particularly important. Scaffolding is about building experiences incrementally so that independence and mastery is achieved. Hidden messages are more powerful than overt messages, especially with young people. If there is inconsistency between your message and your behaviour, young people are more likely to adopt the behaviour than the message. This is where modelling and mentoring come in. One can't expect a young person to understand the engagement of risk if the supervisor doesn't ‘walk the walk' as well as 'talk the talk'.

9. Supervisors should undertake education in generational differences. This is important in understanding self and learning to communicate across generations, both up and down. People without effective people skills should not supervise young people at work.

10. One can talk about hazards and risk till the cows come home, but learning without context is useless. Walking young people through tasks, walking and talking about and on site, conversations (not lectures) about risk, modelling and mentoring, open questions and listening – these are key to keeping young people safe on site.
Workshop Questions

1. Name some of your life’s adventures and what you have learned through them.
2. Have you been part of a service learning organisation? What calculated risks did you take in some of their activities?
3. Present the story of an adventurer to a group and discuss the qualities of adventuring.
4. Play a game of chance with a group and recount what intelligence is required in order to win.
5. Where have you spent more than 10,000 hours in learning experience? Would you consider this an area of expertise?

Transition

Risk aversion promotes disconnectedness from learning and the journey of life. A recent Herald Sun’s headline read, ‘Kids will be banned from blowing out candles on communal birthday cakes, under strict new hygiene rules for childcare’ (http://www.heraldsun.com.au/news/national/strict-new-hygiene-rules-for-childcare-will-wrap-kids-in-a-bubble-says-ama/story-fncynkc6-1226571089528). Here is the latest in the race to further dumb down risk, promote fear and chase after zero. What madness and illogical outcomes surface when people are driven by risk aversion and zero! This article reports on guidelines issued by the National Health and Medical Research Council (NHMRC) to daycare centres. So no birthday cakes are allowed for fear that someone will blow germs on someone else (when they will then wander out into the playground and cough all over them anyway). The NHMRC also advises that all children and staff wash their hands with alcohol sanitizer after playing in the sandpit. Fortunately, doctors are warning that such advice is ‘bubble wrapping’ children and could lead to kids lacking sufficient resilience against germs.

The real lesson that people learn when this kind of double standard and ‘doublespeak’ logic prevails in society is that security, safety and control become the joke, and nonsense is normalised. Rather than generate some sense of ownership in risk, the more we ‘dumb down’ risk, the more we increase cynicism, disconnectedness and scepticism, and thereby create a dangerous culture for the management of risk. Meanwhile back at a childcare centre near you, you will be relieved to know that teachers have been instructed to construct plasticine cakes and candles and mimic blowing. What a fun celebration that would be. It seems that, with risk aversion, the only exercise of imagination is that forced on users. There is little imagination happening at the other end.
SECTION TWO
Disconnectedness and Risk
CHAPTER 4
Disconnectedness with Risk

The misunderstanding is often that the ‘Risk Manager’ is managing the risks when seldom do they have the authority to make the changes necessary to manage the risk. - Joe Risser

Alertness is weakened when one relinquishes control to the system. – Nassim Taleb

Disconnectedness with Risk
It seems logical that any increase in risk aversion must by nature lead to disconnectedness with risk. One of the truisms about risk is that one can only become risk intelligent if one engages with risk and takes risks, thereby learning from risk. The very process of risk aversion is therefore a process of dumbing down a population and creating risk ignorance.

I was at a worksite the other day and was irritated by a sign. I spoke to the Safety Manager and asked him what value it contributed to thinking about risk on site. He took my point, so I was allowed to take it down and took it home. It’s a magnetic sign which you can shift about the workplace and it says, ‘Be careful. Carelessness can hurt you’.

Why do we think such messages actually do anything? Why do we put up such nonsense signs which actually say nothing? It would be better to have a sign saying something specific like, ‘Slow down to 15 kph’, ‘Carry less load’, ‘Chat to your spotter’, ‘Switch your mobile phone off if doing high risk work’ and so on.

Much of the mythology associated with the language and discourse of carefulness, common sense and awareness demonstrates that people don’t know how to think about risk. People are so disconnected from risk, they often forget how to be politically correct about it. It is interesting that President Obama often refers to the rebuilding and refreshing of American greatness through the ‘risk takers’ and ‘doers’ of society. How can a population develop innovation, imagination, learning and creativity if it has been conditioned to be risk averse and disconnected from risk?
The Nature of Disconnectedness

One of the most comprehensive textbooks on ergonomics is by Kroemer and Grandjean: *Fitting the Task to the Human*. The title in itself captures the essence of ergonomics; it is all about the ‘fit’ between the task and humans. It doesn’t make sense to try and fit the human to the task. When we ignore ergonomics people get injured.

A few years ago I did some research on the physical ergonomics of piano teaching. Piano teaching involves teachers and students working together to learn how to play an instrument. Both teachers and students vary in size. In piano teaching it is difficult to fit the task to the human. There are some adjustable piano stools, but it’s too expensive to make adjustable pianos, so there is a high level of injury with teachers and students. So piano teachers manage risks through short lessons and limiting activity until the ‘fit’ is right.

The psychology and social psychology of ergonomics (or holistic ergonomics) is just as important as physical ergonomics. Holistic ergonomics looks beyond just the physical, it knows that perception, motivation and decisionmaking are just as important as the size of a chair. You may make a perfect ergonomic chair but you can’t dictate if someone will use it correctly. How do we make sure that the things we say and do in risk ‘fit’ what we know about human psychology and social psychology? How do we make sure that the way we use our bodies is in ‘sync’ with the decision making process? My associates at JointAction (http://jointaction.com.au/) who specialise in Holistic Ergonomics whilst helping with injury management, are most focused on injury prevention by integrating the social psychology of risk into their preventative work. Here are a few questions we might want to consider which illustrate the ways we have become disconnected from risk.

1. If we know human senses are easily ‘flooded’ and this drives default ‘tick and flick’ mentality, why do we continue to bombard workers with excessive safety bureaucracy?

2. If we know that gain-framed messages are more effective than loss-framed messages, why do we maintain work cultures with so many punitive and non-motivating safety messages?

3. If we know that human perception is highly unreliable and influenced by many cognitive biases, why do we not factor in consideration of these biases in the way we manage risk?

4. If we know that ‘doublespeak’ drives cynicism, scepticism and pessimism in workplaces, and that these are powerful subcultures, why do some managers continue to say one thing and do another as if it has no safety consequence?

5. If we know that complacency, risk arrogance and overconfidence are the highest cause of human incidents and injury, why is the language of doubt, reflection and conversation not automatic in the discourse of our workplaces.

6. If we know that the language of zero primes humans to focus excessively on the microscopics of risk, why do we continue to maintain such language? What language do we use to ensure a balance between a micro and macroscopic focus?

7. If we know that the myth of ‘engineer out the idiot’ dumbs down a workforce, why is such language maintained in safety culture, priming workers to not think?
8. If we know that hidden assumptions and values are critical triggers of behaviour, why are managers not more trained in how to undertake skilled observations, psychology of risk questioning, and conversations?

9. If we know that a request that someone exercise some ‘common sense’ confirms that it doesn’t exist, why do we maintain such language?

10. If we know that non-specific language like ‘be careful’, ‘be alert’ and ‘take care’ lack definition and guidance to action, why do we repeat such expressions as if people will automatically know what to do?

These are just some of the questions we need to consider if we want to explore the psychology and social psychology of risk.

The Myth of the Lucky Streak and the Projected Confidence in Punishment

The movie ‘Moneyball’ is an excellent example of how human perception is deceptive. The idea that a player is ‘hot’ or has a ‘cool hand’ or is on a ‘winning streak’ is more about perception than reality, and is evidence of availability and representative bias. A great deal of our commitment to players and teams is emotional. We remember the signature performance much more than the failures, we recall the star achievement because it was celebrated with more noise than the quiet failure.

Kahneman and scholars have shown clearly that there is no such thing as a lucky streak over time. Every player has a skill level to which they perform on average. Sometimes they go up and other times down, but on average they maintain results around their mean score. Australian cricketer Don Bradman’s batting average was 99.94, including a top score of 334 and 7 ‘ducks’ (no score). The next best batsman of all time according to the bible of cricket, Wisden’s, is Indian player, Sachin Tendulkar. Tendulkar’s average is 65.25, his top score is 248 and he has had 14 ducks. Bradman is not remembered for his last duck which robbed him of achieving the immortal average of 100. Instead he is remembered for his best performance of 5 centuries in the Ashes series of 1936-1937. It should also be remembered that in that five of his innings in that series, Bradman scored no hundreds. After his first test appearance, with scores of 18 and 1, Bradman was dropped from the team. Why all these statistics? Kahneman explains that over time there is no lucky streak but simply ‘regression to the mean’, a concept which was first identified by Sir Francis Galton 200 years ago.

‘Moneyball’ is based on a true story which shows that talent scouts and managers pick players more on emotion than on averages; that even professional decision-making is constrained by a range of cognitive biases. The movie is about ‘sabermetrics’ and the failed career of Billy Bean despite all predictions by talent scouts.

Gilovich (How we Know What Isn’t so: the Fallibility of Human Reason in Everyday Life, 1991) demonstrates the fallibility of the belief in the hot hand or losing streak. Having researched patterns of scoring for the Philadelphia 76ers he compares the evidence of scoring clusters with the probability of scores around each player’s average. The evidence shows that scoring clusters soon disappear when time is extended beyond the recall of the moment. For example, the following pattern OXXXOXXXXOXXXXOOXXOO was recalled by 62% of survey participants in Gilovich’s research as a winning streak. This may be so if one only looks at the first eight shots, but if we look at the last eight shots it is the opposite.
Why does all this matter? Why bother about ‘regression to the mean’ in a discussion about the psychology of risk?

When it comes to perceptions about the effectiveness of punishment the law of regression to the mean is most important. When professionals and managers look at statistics what are they looking for? Do they notice the immediate changes in behaviour following an audit and inspection and then attribute success to that activity? Do they believe in the effectiveness of punishment over reward based on their perception of changed behaviour following punitive action? Would anything change from the average if nothing was done? Are there indeed average scores for injuries and incidents for certain projects, complexity and staff size? If scores vary from that average, to what do people attribute this change?

The research shows that when it comes to changing people’s behaviour, humans attribute far too much power to punishment and too little to reward. Indeed, organisations don’t even keep comparative data like this; they mostly record lag indicators and remember punishment effectiveness. The truth is, claims about the effectiveness of punishment are ‘attributed’. Claims of improvements in risk performance can just as easily be attributed to changes in reporting or definitions of injury, harm and lost time!

Even more amazingly, regulators don’t keep data on time of day and frequency of incidents as if such data is not relevant to incident causation. This further goes to show that humans tend to want to confirm their own theories rather than be challenged by data which may disconfirm them. How can you be challenged by data you don’t collect? Why would the regulator want to collect such data when their reason and purpose is fixated on blame, catching people out, litigation and punishment.

Good Luck to the Luck Deniers

How was Donald Horne to know in 1964 that when he wrote a simple little book called The Lucky Country he would sell over 2 million copies? That was lucky, a case of the right book at the right time. The book describes Horne’s understanding of what it means to be Australian. Later in 1978, Ronald Conway was to write Land of the Long Weekend, and captured similar sentiments about the Australian psyche. It too sold well as Australians sought to know themselves in the post World War II and Cold War era.

In many ways Australians are a nation of punters (gamblers). We even nick-named Ricky Ponting, one of our favourite cricket captains, ‘Punter’. Each year Australians spend $65 million on the Melbourne Cup alone and put more than $10 billion through poker machines. As the saying goes, Australians would bet on two flies climbing up a wall. It seems un-Australian not to believe in luck.

The idea of circumstance, fortune, misfortune, randomness, uncertainty and luck are not in vogue these days, especially in the risk industry. Gone are the days of soothsayers and witch doctors who could pronounce doom and gloom on the turn of a bone or a leaf. Gone are the days when one believed in prayer. As the philosopher Alain de Botton tells us in The Pleasures and Sorrows of Work, modern scientific society can no longer stand the idea of non-control. We live in the days where you ‘make your own luck’, a tidy phrase used by the fortunate to blame the poor and disadvantaged. You only have to spend a few hours at the Wayside Chapel (http://www.thewaysidechapel.com/) in Kings Cross Sydney to quickly dispose of that illogical and discriminatory idea.

Luck is anything that is beyond our control. Risk is defined as the effects of uncertainty on outcomes (AS/NZS 31000), and one thing fallible humans learn quickly in life is that nothing is certain. Risk and luck, uncertainty and opportunity are closely connected. Everyone seems to know this, except for
the luck deniers. The rest of us know that one wins at a gambling by luck. We know that sometimes, when many odd things align by circumstance and chance, and an unusual opportunity comes our way, we say we were lucky ‘against all odds’. We know there was little choice about where and when we were born. Research shows that birth date increases the likelihood of selection for elite sporting teams (based on age and size at peak times in high school development). Cancer seems to visit people at random, vehicle accidents happen at random, rare opportunities and moments just seem to happen. Just ask Princess Mary of Denmark. Little did the Hobart-born girl know that a quiet drink at the Slip Inn pub in Sydney in 2000 would lead to the commoner-to-princess fairy tale.

People with risk intelligence know all about probability, luck and risk. It is only those who are disconnected from risk that imagine all risk can be controlled. The goal for the professional in risk and safety is not to make risk the enemy, but to develop intelligence about managing risk. Those with risk intelligence don’t deny luck but know that ‘risk makes sense’. Dylan Evans suggests in his book Risk Intelligence, that a dose of gambling helps improve and mature risk intelligence. Probability is all about the ratio of risk to outcome. Bankers and insurers calculate and act (gamble) upon assessments of risk and probability, but as with the last Global Financial Crisis (GFC), they can get them wrong. The GFC demonstrated just how much human emotion and the psychology of risk is a factor in business risk. Business risk is about probability and uncertainty. How can one develop skills in risk in business if one takes no risks?

We sometimes speak about the odds being in our favour. We talk in terms of fate and inevitability. We usually attribute positive rare and unusual sequences of events to good luck, and when another sequence of events delivers a poor outcome we attribute it to bad luck. This proves little more than that humans are frustrated with the lack of control in living. It’s why we sometimes talk about doing things on a ‘wing and a prayer’.

Some people don’t like the idea of luck because it assumes that there are events in life over which they have no control. This is typically found in some professionals who claim that ‘all accidents are preventable’. It is clear evidence that the speaker of such nonsense is disconnected from risk.

There are some strange bedfellows in the luck-denier camp. Perhaps the most prominent of these are American televangelists. Texas seems to be the centre of the world for luck-hating fundamentalists. For the fundamentalist, luck is an evil myth and blasphemy invented to take God out of the life equation. For the luck deniers, all of life is determined and controlled.

Kahneman discusses the issue of ‘regression to the mean’ in his work Thinking Fast and Slow (2011). Kahneman was lecturing flight instructors in Israel and proposed the important principle that rewards for improved performance work better than punishment of mistakes. An instructor raised his hand and disagreed, saying that when he praised cadets for a good manoeuvre, the next time their performance was actually worse. Then when he screamed at cadets for poor execution the next time they did better. Therefore Kahneman’s theory was incorrect in practice.

Kahneman disagreed. He explained that it would indeed be natural for an instructor to praise a cadet when their performance was above average. However, on the law of averages, if someone is performing above average it is likely that their next performance will be below average. It is possible that the cadet was just lucky in that above average performance. Similarly, if a cadet were berated for a poor performance, it would be likely that the next performance would improve on the next time due to the law of averages. The instructor has attributed a causal factor to the fluctuations of a random process.

Humans tend to attribute patterns to random events and apply superstition to sequences of chance. Many sports people remember moments of above average performance and then attribute some
circumstance to that success. Most of our elite athletes are superstitious; they have routines, foods, clothing and actions they follow religiously in order to enhance performance (http://sportsmedicine.about.com/od/sportspsychology/a/superstitions.htm). This is how attribution works: we attribute favourable signals for when we win and circumstances in losing are forgotten. Gamblers rarely remember their losses, always their ‘near wins’. This is the same with ‘the lucky streak’, ‘the purple patch’ or the ‘cool hand’. People watch sports and attribute success or above average performance to certain players when in reality they are simply performing below or above their average at random. Many people believe in lucky numbers despite the fact that drawing lottery numbers is completely random. When Apple invented the ‘Shuffle’, CEO Steve Jobs responded to complaints that on the random setting, tunes seemed to play in patterns. At the next Apple convention Jobs said he had made ‘the Shuffle less random so that it felt more random’.

What does this all mean for understanding risk? Does it mean I am a fatalist? By no means. That would simply put me back into a binary understanding of risk and luck. Does it mean we should do nothing about risk? How absurd! More binary thinking simply that seeks entrapment in a narrow understanding of risk. The luck deniers are the binary thinkers with the tired old non-sequiturs of ‘How many people do you want to hurt today?’ or ‘Can you make your own luck?’ There is no human fallibility in the fundamentalist language of the luck denier. Those who acknowledge luck are simply acknowledging that we are all working within the bounds of human fallibility. There is no advantage in denying humanity, but there is great advantage in seeking to maintain the best in risk and safety management without creating ‘smoke and mirrors’ or doing mental gymnastics just to maintain the illogical mantras of zero harm or ‘all accidents are preventable’. The key to risk and safety maturity is not risk denial or risk aversion but mature risk taking.

This fixation with statistics is endemic in such industries as building, construction and mining. The preoccupation with LTIs, LTIFRs, IBNR, LTFR, TFRLTIs and MTIs etc is a fixation with no equal. Yet there is little connection between injury rates and culture. Counting statistics to achieve zero is a distraction from the process of analysing culture and the long-term determinants of poor risk management. Whilst managers are so busy counting they leave untouched the eroding elements of a toxic culture.

On the very day that BP was celebrating 7 years without an injury on the platform of the Horizon One oil rig, an incident occurred killing 11 people, injuring many others and spurtng 200 million gallons of oil into the Gulf of Mexico. So much for what injury statistics provide by safety culture knowledge. So whilst BP were busy measuring data, they allowed an undercurrent of subcultures to run free such as overconfidence, arrogance, delusion, misdirection, hidden pressures on performance and spin of information (http://www.justice.gov/opa/pr/2012/November/12-ag-1369.html).

Injury data is not a measure of culture nor how that culture manages risk.

Most organisations that put faith in data also seem to believe that data is objective. But when a company just tracks data, it can be extremely difficult to know the nature or severity of an incident, especially when calculative organisations unintentionally encourage dishonesty in reporting. The history of the ‘zero harm’ ideology is associated with the preoccupation with counting in the belief that the keeping of numbers is the foundation for safety improvement. The BP Horizon One disaster soon disproves such a theory.

culture change in the industry. A similar focus was taken in the Cole Commission resulting in the creation of the Office of the Federal Safety Commissioner (http://en.wikipedia.org/wiki/Royal_Commission_into_the_Building_and_Construction_Industry). It seems every time a regulator or government body becomes concerned about safety statistics in an industry, they wave red flags about safety culture and leadership, then simply revert to the continuing burden of calculative safety systems as a solution to cultural problems. Yet at no time is the government challenged to prove any causal link between injury statistics and culture.

Interestingly, in the ‘Getting Home Safely’ report there is no definition of culture but much discussion of numerics and statistics. It is as if the very publication of statistics is thought to generate cultural change. One of the recommendations of the report sets a target of a 35% drop in safety statistics, what the report calls the ‘safety record’. The attribution of cultural attachment to a ‘safety record’ is arbitrary and speculative. Many statistics can just as easily improve by luck or changes in workload or technology. As sure as Kahneman was a mathematical expert there will be a natural regression to the mean. This is not to say that one should be complacent but rather that leadership knows that there are ‘lies, damn lies and statistics’. In Canberra for example, there were no fatalities in building and construction from January to July 2013, a 100% improvement according to the safety record argument without any implementation of any recommendations of the report. Yet, the punitive regime that followed the publication of the report and the negativity associated with the report all attributed a lack of accountability to the rise in fatality statistics in my home town, Canberra.

Unfortunately, the fixation on statistics in the risk and safety industry is used to justify its own existence. Any challenge of statistics or statistic-keeping is seen as irresponsible or poor leadership. Statistics are the preoccupation of the luck deniers, as though each point scored in the negative is somehow a motivation to improve performance. This is like deciding who wins a football game by the penalty count. Well, if a luck denier can explain how this is motivational, I’d say ‘good luck to you’, it simply doesn’t make sense.

The Noise of Leadership Discourse

I have recently been contacted to provide support for two executives in large companies. Both require support because they are not coping. One is facing a formal bullying claim, and the other clinical depression and alienation. Both work in excess of 80 hours a week, working 7 days a week, and have been doing so for a year. Both feel as if the job cannot be completed without them, and both have young families. Both say their highest priority is their partner and family, but it clearly is not. Both struggle with work-life balance and both are trapped and don’t know how to escape. They are on a pathway to a breakdown if they don’t do something about it, and indeed that may be the only way they get a break from this destructive cycle.

Now you might say both of these people are stupid, but that simply dismisses the real issues and drivers of their situation. This insane level of working is endemic. I did some work with a legal firm where all of the partners were clearly alcoholic, none had maintained a relationship, all worked more than 80 hours a week, and all were extremely wealthy. I once knew a company where the boss slept on the floor of his office, woke up at 4AM each day and survived on about 5 hours sleep. He was working in excess of 100 hours a week.

The so called ‘science’ of leadership and the cult-like management movement is a recent phenomenon but a strong contributor to disconnectedness from risk. ‘Management Science’ probably started with the work of Fredrick Taylor (1856-1915) and the quest to quantify characteristics of management success and to make them secure and repeatable. The institutionalisation of leadership and
management theory has developed since the 1960s into its own industry. The publication of *The Effective Executive* in 1996 by Peter Drucker probably marks the beginning of the modern movement on management and leadership industry. This industry has evolved into university departments, institutes, consultants by the tens of thousands, thousands of books and styles, the evolution of the MBA movement, leadership personality diagnostics and a myriad of theories. Despite generating new fads, disseminating information and creating an income stream for many people, one has to ask whether it has led to improved leadership. In the risk industry, has the emphasis on engineering and technology helped or hindered people in connecting with risk? Some even call risk and safety, ‘Safety Science’.

In Australia, 42 business schools offer an MBA program. The Graduate Management Association of Australia (GMAA), founded in 1993 as an amalgam of a range of state associations, ranks the quality of MBA programs annually. One of the most prominent and expensive Executive Schools of Management is out of Melbourne University, Mt Eliza Executive Education. On average, a five-day course at Mt Eliza costs $10,000 per individual. With groups of twelve, that’s quite an income stream for five days of training. There are many other institutes and organisations which offer some form of executive education. Does this form of education create better thinkers, or does it merely create followers of a particular school of leadership theory? I have seen many clones of the MBA cult who can’t think creatively or critically. Mintzberg (*Managers not MBAs*) and Taleb (*Antifragility*) are perhaps the strongest critics of the MBA mindset. I have worked with many executives in government who are simply experienced clones of the Public Service System, and indeed that’s how one gets promoted; this is the fundamental of that cultural fit. Many of the cultures of corporate and government organisations don’t change, because the innovative and imaginative people it needs to drive change, either leave it or are shuffled out. This was first named by Weber as ‘the institutionalisation of the charisma’ and explains how organisations become static and entrench a mediocrity. This is illustrated in Figure 32.

**Figure 32. The Institutionalisation of the Charisma - Max Weber**
Looking at conference programs, it always seems to be department heads, professors and CEO’s of large corporations who speak on leadership. This perpetuates the myth that big is beautiful, greed is good and leadership is power. I was once told by an organiser of a national safety conference that if I wasn’t the head of an ASX 200 company, a department head or a professor, I had nothing to say about leadership and risk. This is the kind of thinking in leadership which generated the Global Financial Crisis and triggered the ‘Occupy’ grassroots movement against a leadership without justice, compassion and perspective. This kind of leadership gives itself a 70% pay rise while denying workers a 3% one. This kind of leadership puts profits above people and fails to understand when enough is enough. Peculiarly, many in the cult of leadership, as they approach death and old age, begin to do pro bono work, focus on charity and try to reconnect with their lost children.

I just finished reading the fascinating story of Steve Jobs by Walter Isaacson. Jobs was an amazing person, but clearly psychopathic in behaviour and incredibly dysfunctional. Yes, he may have changed the world but at what cost? He abused most people, including close friends. He neglected relationships, alienated his children, but when faced with his own death said:

> Remembering that I’ll be dead soon is the most important tool I’ve ever encountered to help me make the big choices in life. Because almost everything—all external expectations, all pride, all fear of embarrassment or failure—these things just fall away in the face of death, leaving only what is truly important. Remembering that you are going to die is the best way I know to avoid the trap of thinking you have something to lose. You are already naked.

Jobs said this in 2005 at Stanford University. Towards the end of his life he worked hard to reconnect and build stronger ties with his alienated family. He lived to see the graduation of his son Reed from High School, which Jobs described as one of the happiest days of his life.

I met some small business managers the other day, two women dressed in power suits, talking about ASX 200 companies and fully baptised in the management-leadership industry. The discourse of success was connected to top tier thinking, not critical thinking. There was no time to listen nor understand. The discourse was laced with pragmatism, power and ‘leadership speak’. This kind of talk is immersed in spin-as-truth and jargon-as-meaningful. Slater (The Pursuit of Loneliness) introduces us to the Toilet Assumption, the belief that social unpleasantness, once flushed out of sight (managed by the media) ceases to exist. So much of management spin is about managing the media, not about serving others. So whilst technology promises to make us more connected, in reality, we seem more lonely and disconnected than ever. When I worked in the Public Service I was astounded at the proccession of the Minister with the media. Our number one priority each day was not governed by the discourse of service but rather how to get the Minister on or off the first few pages of the paper.

Regardless of whether it’s in small business or tier 1 companies, leaders who are not interested in learning don’t lead, they manage. I meet many executives in large companies and in government who have little time to read, and what they do read often confirms the agenda of the MBA mentality - success, pragmatism and power. There is lots of noise in the leadership industry about itself, but look for the words that are missing from this discourse - compassion, justice and learning.

Parenting - it’s just Common Sense

The sad thing about the notion of ‘common sense’ is that it is a mechanism for dismissing attention to something. The discourse of ‘common sense’ contributes to disconnecting people from risk. The process of dismissal is something I investigated in my research into fundamentalism. People who assume a position of superiority over a fundamentalist often dismiss the logic and sense of the
fundamentalist. Fundamentalism is not a matter of being stupid or unintelligent. Indeed, the evidence shows that many suicide bombers are young intelligent people. To write people off as just lacking ‘common sense’ is unhelpful. Rather, we need to better understand the process of sensemaking undertaken by people whose behaviours we don’t understand. To do this, we need to understand much more about the arational decision-making process. I wrote about this in *One Brain Three Minds*.

In a previous life I was ACT Manager of Youth, Community and Family Support. In that role I served on a range of working groups and task forces on parenting, child protection and young people in and out of home care. When I established the Galilee School and worked in youth detention, I saw first-hand the results of terrible abuse of children. I saw many people who didn’t know the fundamentals of parenting. But one might ask, isn’t effective and good parenting just common sense?

Well, if good parenting is common sense, why is the welfare budget so high? The welfare budget, the level of child abuse, the neglect of children and the number of welfare institutions demonstrates that the very fundamentals and logic one would expect of parents is not held in common. Indeed, the level of abuse and neglect in our society would tell you that 20% of the population don’t know how to parent.

When you work in welfare you know you cannot assume that someone knows the fundamentals of care, love, respect, tolerance and selflessness. Indeed, many third- and fourth-generation welfare children exhibit all the behaviours they learned from their parents despite strong efforts to educate them otherwise. Whilst there is some success with Cognitive Behavioural Therapy (CBT), not everything gets through to Mind No. 1, the rationalist systematic mind. Many ways of thinking are intuitive and unconsciously learned which denies the logic of reason through cognitive dissonance.

The welfare sector is a sector of high risk. Children who are taken out of homes and who suffer abuse are at high risk of many things including early school leaving, detention, crime, and substance abuse. One can learn a great deal about the nature of risk by spending some time among these high risk kids. Their risk taking behaviour may not make sense to many but it is their common sense. For them, its common sense to fight, steal, live on the streets, abuse others, cheat, take drugs and live in squats. Their sensemaking doesn’t make sense until you get out of your shoes and live a day in theirs. But you won’t be able to help anyone with the language of ‘common sense’; if they detect any superiority or patronising language, they will switch off. Understanding how others ‘sensemake’ is the beginning of making connection with risk.

**How is Dustbin Going?**

When I started the Galilee School in 1996 every young person in my school had Attention Deficit Hyperactivity Disorder (ADHD), was on drugs (both prescribed and illicit), was out of home, had dropped out of school, was sexually active, had a diagnosed mental health disorder and had been in serious trouble with the police. These were kids between the ages of 12 and 16. Several of the young people in Galilee were ‘half million dollar kids’, who cost the government more than $500,000 to supervise and keep safe. These kids used to have 8-hour shifts around the clock, on one-to-one care.

I started with 12 young people in Galilee’s first year and by the time I burnt out there were 24. Yes, it was only a small school, and we had more than 12 teachers and youth workers on staff. The teachers and youth workers were unique people; its hard to find teachers who can work with young people like these.
Recruiting good workers for the school was very difficult. I had one success for every ten people that applied. Many were authoritarian and controlling, and merely aggravated the young people, making things worse. The climate I established at Galilee was a non-controlling one, with plenty of structure and learning options. The focus was on variety, meaning, purpose and choice, and many teachers struggled to work in an environment that did not force or direct young people to learn. I corrected anyone who used the words ‘children’ or ‘students’ in their language, until it became the norm to only refer to them as young people. It was important to get this language right.

Every day we started with a morning community meeting where the day’s options were listed on a whiteboard, and whilst the young people were having breakfast, they mapped out their choices for the day. The structure was very clear but control was achieved through relationships, not policing. You can’t succeed in working with these young people unless you relinquish power and become a facilitator of learning rather than the authority in learning. Indeed, workers had to ‘let go’ and not worry if a young person learned nothing for weeks. It didn’t matter, as it was preferable for them to be at Galilee, even if they were not doing much formal school learning, than to be on the streets. On the streets they simply got more of the same: survival of the fittest.

One fascinating thing about these young people was that they all wanted to learn and succeed. They all came voluntarily to Galilee, which was located on a farm in South Canberra. Indeed, one of my most significant punishments was to take them back to the streets, which we only had to do three times in three years. At Galilee we only punished for violence against another, not because they wouldn’t do school work. At Galilee they had protection, belonging, respect, meaning, friendship and purpose. That was the attraction, and as long as that climate existed, they learn of their own initiative.

I read with interest in today’s newspaper that many teachers in mainstream schools are physically abused and on stress leave. In three years at Galilee no teacher was ever hit, yet these were the kids who committed violence in mainstream schools. One young person who came to us at Galilee was Dustin, who has sadly since died in a road accident. Dustin was a good kid at Galilee, always happy and participative, active and friendly. He didn’t do much Maths and English work but enjoyed technics, mechanics and art. Dustin was one of our success stories, yet he had caused a whole school to go on strike until he was permanently expelled. The union had to protect its members against this one kid, who brought a school of 800 students to a standstill.

I was once at a conference speaking on my work at Galilee and met the principal of the school that Dustin had attended. When the principal approached me he asked, ‘How is ‘Dustbin’ going?’ The language said it all; it was an indicator of the culture and discourse at the school. Dustin had not failed at that school, the school had failed with Dustin. When one is disconnected with risk, one cannot understand or empathise with those at risk or connect with risk to be of any help.

**Anthropocentric Management of Risk**

Human-centred management of risk is anthropocentric management of risk. The word anthropocentric derives from the Greek word *anthropos* meaning ‘human’, and is where we get the study of anthropology, the study of humanity. An anthropocentric approach to risk places the knowledge of humans, their social and psychological circumstances central to management.
Anthropocentric management of risk stands in distinction from models that give primacy to systems, engineering, technology (design) and legislation. Anthropocentric risk understands these things with humans in mind. Anthropocentric risk as a framework for safety and security management is concerned with models which dehumanise people in the way they work. The truth of the fact is, if one develops systems or engineering approaches to risk that dehumanise people, humans will reject it.

Anthropocentric risk has its focus on the whole person. Anthropocentric risk doesn’t compartmentalise people as just a mind (cognition), the sum of behaviours (behaviourism) or just a social animal. Anthropocentric risk understands that human complexity must be taken into account. It rejects the notion of simplistic fixes or dogma in any model of safety management because humans are complex organisms, not simple machines.

Anthropocentric risk understands that humans operate on many levels and that an understanding of the conscious and unconscious is critical in systems and engineering design. No system, legislation, technology or engineering will succeed if the purpose is make the ‘human fit the task’ rather than the ‘task fit the human’. The is fundamental to the psychology of ergonomics (Kroemer and Grandjean, 1997).

Non-anthropocentric models of human understanding tend to be overly mechanistic and alienating to human cooperation. In the end humans don’t like being treated like machines and it doesn’t take long before they vote with their feet.

Similarly, systems that are dogmatic, fundamentalist, rigid and anti-learning are also rejected, as people naturally yearn for meaning and purpose in what they do. It is simply delusional to think that people can be controlled or enforced into total compliance. It has been shown that the assertions of ‘broken window theory’ just don’t work in reality. Indeed, when their child turns into a teenager, parents learn how much of a nightmare it is when someone works against you, and a delight when someone chooses to work with you.

When we were kids in the 1960s it was common to get a ‘thrashing’. In the days of ‘spare the rod and spoil the child’ it was nothing to be hit with a shaving belt, an electric chord or leather strap or be punched into submission. I remember in grade 4, at the age of 8, my teacher (Miss Hume) pulling my pants down and beating me for several minutes in a frenzied rage. For what? Talking.

Whilst the backs of our legs, our hands and faces wore the marks of this philosophy, it only changed behaviour temporarily. We soon learned how to subvert the teacher. Driven by resentment we became more clandestine in rebellion, smarter in insolence and deceptive in communication. The overt culture of compliance simply masked the subculture of defiance. The surface product looked like obedience but the practice of thrashings drove by-products which were hidden and dangerous. People who dished out thrashings in rage and delight, masked as an act of authority, lost respect and fueled resentment.

Fast forward 42 years to Galilee. Here were a group of young people who had learned abuse by being abused; they had learned to be out of control by a system that has failed them. At every point of their lives they demonstrated that they yearned for relationships, were creative, wise, innovative, imaginative and capable of learning. Yet the system they were trapped in generated the use of these skills in the direction of crime and survival. With these kids any approach of irrational enforcement or attempt to rule over them failed. You either worked with them with respect as people, or whatever you attempted would fail. No threat of anger, violence, punishment or confinement bothered them. When you come from a world of absolute abuse, you become hyper-sensitised to fundamentalist authority and its disrespect for others.
The system of education, discipline and relationships at Galilee was anthropocentric, which is why it worked.

One doesn't humanise a practice by taking people out of the picture; the idea of ‘engineer out the idiot’ is insulting nonsense. We need to either adopt humanising processes in managing risk or find a bunch of robots to do the work. Culture is about humans, and our systems should not undermine culture. A mechanical approach to risk, consumed by absolutes and statistics, is simply alienating, non-inspiring and demotivational.

If we want to encourage ownership in risk, then we need to develop systems that humanise and respect workers. If we want leadership in risk, then we need to develop a work climate of inclusion and mutual exchange. If we want relationships, wisdom, creativity and learning to dominate our culture, then forget about setting up a police state of enforcing absolutes. Absolute discourse in any culture is absolutely alienating to humans. The way we view risk must be anthropocentric.

An Old Code of Non-Thinking

Guy Claxton (*The Wayward Mind*) describes ‘common sense’ as a code of thought and conduct which allows people to make judgements of others. He argues that the concept and language of ‘common sense’ creates a code of thought which creates an unthinking ‘presuppositional framework’, that is, an unquestioning objectification of thinking. When someone doesn’t conform to my undisclosed presuppositional framework for thinking, we judge them as lacking ‘common sense’.

Strangely this idea of ‘common sense’ varies between cultures, sub-cultures and over time, so it hardly common. For example, in the USA it was not until 1975 that homosexuality was taken out of psychological text books as a mental disorder. It is ‘common sense’ in indigenous cultures to maintain unscientific myths as the cause of life and meaning. However you look at it, we don’t make sense of things commonly; I cannot presuppose that all people ‘make sense’ of the world like I do.

If I am so sensible, why do I do stupid things? Why do I start to go on an important journey and forget my passport, ticket or keys? Why do I risk a relationship by saying stupid things? And we answer: It wasn't my fault, I was stressed. I wasn't myself. Someone else distracted me and I forgot. I was seduced. We always seem to find a way to explain away the stupid things we do but quick to label others’ actions as stupid or lacking common sense. Unfortunately, this thinking and language actually prevents us from considering or taking seriously the real reasons for others’ actions. The language of ‘common sense’ is actually a code to help us stop thinking.

Many of the self-destructive and self-defeating impulses we have simply don't make sense if one believes in common sense. Many addictions don't make sense, many obsessions don't make sense, but many of us have addictions and habits which have a deeply rooted cause which we mask by all kinds of mental and verbal gymnastics.

I was interested to watch a documentary on the Isle of Man motorbike race. There were seven fatalities in 2011 over the two weeks of that race. The race itself has a 100 year history and today riders travel at 330km per hour down the streets of the Isle of Man. ‘This activity and its risks made sense to one man who said, ‘We are all wrapped up in cotton wool these days. It’s great to have a place where we can take risks and explore the danger’. His best mate died last year in the race.

The more we stop talking about ‘common sense’ the more we will begin to make sense of risk and make managed risk sensible.
Pay Attention and Don’t be Careless?

I’m going ask you to pay attention to what I have written. I’ll do my best but chances are your mind will drift before too long. I actually know it’s futile and, indeed, impossible, as Lawton (The Grand Delusion - New Scientist May 2011) tells us we have a mental saccades (like a mental blink) every three seconds. If we drink alcohol, this rate of ‘zoning out’ doubles. We also blink physically every five seconds, but our brain wires images together so we think we actually view the world with continuity. The truth is, our brain is not always ‘with it’. It goes ‘off line’ every few seconds, 150,000 saccades a day, or about 4 hours. But not to worry. Your mind wanders back quickly, so lets read on.

Some of the most compelling evidence for mind wandering comes from Jonathan Schooler and his research in neuropsychology (https://www.psych.ucsb.edu/people/faculty/schooler). The truth is, our mind is made to wander, particularly when reading, listening to a monologue, doing tasks or undertaking paperwork. We wander out of short and long term thinking in milliseconds. Back yet? Good. Keep reading.

Research shows that we don’t even know when our mind has wandered. It’s all part of what it is to be human. Indeed, it could be that mind wandering is a precautionary mechanism to enhance safety, rather than being a risk. Some theorists believe that it is critical to creativity, taking options, thinking of possibilities, big picture thinking and learning. It seems the longest we can pay attention is for a few minutes.

School teachers are perhaps the worst offenders in trying to police this nonsense of paying attention. The evidence shows that telling someone to ‘pay attention’ or ‘be careful’ actually diminishes perception rather than enhances it. Those who ask for common sense, care and attention are usually those most disconnected from risk.

Schooler’s work has shown that under some circumstances our mind can wander less. This has much more to do with the context and environment in which we work than the mind space we are in. Multitasking is problematic too, but that is for another book. And this leads to the main point: we should be talking much more about distractions, interruptions, disruptions and who we are working with and much less about this nonsense of carelessness or paying attention.

Have you zoned back in yet? If not, you may need to wander back a few paragraphs and check you didn't miss something in the process.

Creativity, Possibility and Opportunity

The death of Steve Jobs which was discussed earlier, reminded me of just how important creativity is to making things possible and developing opportunity. In a tribute, Steven Spielberg equated Steve Jobs, with more than 338 US patents to his name, to Thomas Edison, . Whether you are a Macintosh or PC person, Jobs stands out as a person who was driven by creativity, learning and thinking differently. Indeed, the campaign for Macintosh in the 1990s was ‘Think Different’.

One of the most annoying things about how people respond to risk in the workplace is the lack of creative thinking. It seems that whenever there is a problem associated with risk we get lumbered with more paperwork and systems. Either that or we get this growing list of things that have been banned. More ‘nanny state’ thinking and political correctness gone mad. Sometimes this exaggerated focus on minutia is driven by zero harm language, and other times by fear and anxiety about litigation. In the end, we are the ones who suffer, through either a loss of possibilities and scope in thinking or a loss in flexibility to learn by taking calculated risks.
The story of Steve Jobs is a fascinating one, a life of risks, failures, bounce-backs and successes. I think it would be pretty rare for someone who has been so publicly sacked from an organisation as large as Apple, to then come back to the old flagging company as CEO. Sometimes we can look back on sackings and so-called failures and we see those opportunities which we would not otherwise have been given. This has happened to me on many occasions. Some of the people who sacked me deserve the greatest of thanks for helping me move on and learn, for giving me new opportunities which I was too fearful to jump at and grasp. The new opportunities for learning and creativity were not welcome at the time, but I am now thankful for the risks those movements in my life brought.

And look at what we have in such things as the computer mouse, the tablet, PDAs, the iPod, iPad and iPhone, none of these would have been on our table had Steve Jobs, the drop out from University not taken risks playing with computer ideas with Steve Wosniak in his parents' garage in 1974.

### Incentives, Reward and Motivations

Too many organisations and leaders still operate from the assumption that extrinsic rewards motivate ownership and creativity. They are simply out of step with all the research from neuropsychology and social psychology. The idea that people respond rationally to external rewards and extrinsic motivators flies in the face of evidence to the contrary. Indeed, there is much evidence to show that extrinsic rewards demotivate people and diminish performance. The old carrot and stick theory of motivation has much more to do with Taylorism (1900s) and 'people as machines' behaviourist thinking, than the modern reality. Taylorism believes you need simply to reward the behaviour you seek and punish the behaviour you discourage. It seems pretty simple and straightforward, but unfortunately humans are not machines and it doesn't work this way. People have much higher drives and motivations than a mouse in an experiment maze.

I suggest reading Dan Ariely’s *Predictably Irrational*, Daniel Pink's *Drive* or Joseph Hallinan's *Why we Make Mistakes* to understand countless experiments and evidence which shows that humans don't work on the Taylorist principle. Humans are not purely rational. We don't function on some kind of algorithm unless the work is so simple and routine, so repetitive, that we don't need to think while doing it. Any complex task delivers enjoyable and intrinsic motivators which extrinsic rewards counter intuitively work against. As someone once said, 'If you need me to motivate you, I probably don't want to hire you'.

Rewards, by their very nature, narrow our focus. They may work for selfishness but they don't work for humanity and community. They cloud creativity and thinking. This has been shown many times in experiments with various groups given the same tasks and variation in reward, including no reward. It can be seen in the business world where huge payouts to executives narrow their view to stock price only and eliminate their sense of community, employee well-being and ethical behaviour. In short, time and time again we see corporate executives with narrow focus and unethical behaviour whose thinking has been clouded by an extrinsic reward. This kind of thinking has led to the worst debt crisis in world history. Enron is a good example of what this kind of thinking develops in the long term.

Extrinsic rewards tend to generate short-term thinking rather than long-term thinking. Once the reward has been received it soon is not enough. Humans become desensitised quite quickly to material and extrinsic ‘things’. Extrinsic rewards are also addictive for their own sake rather than creators of ownership and innovation. The very presence of short-term goals tends to lead employees to focus myopically on short-term gains and lose sight of long-term effects on the organisation. Experiments by Knutson, Titmuss, Amabile, Deci and Kahneman show that extrinsic rewards can
be mapped on an indifference curve so that over time the very goals which were believed to drive
long-term organisational values actually achieve the very opposite. This may seem counter intuitive,
but look inside yourself and ask where much of your time goes, and then think about the nature of the
reward you receive for that time you give.

For all the time you give to loved ones and family, what is the key motivator? Is it money? What is
the motivation for people who do volunteer and community work? What about all the people who
give their time to open source software development and other successful open source activities? The
story of how Microsoft’s Encarta fell to the open and free on-line Wikipedia is a good example of
the extrinsic profit motive falling to the intrinsic ‘not-for-profit’ motive. Thousands more examples
abound.

The questions should be: What kind of employees do you want? What capabilities do you want them
to demonstrate? What are your goals to achieve long term ownership and inspiration?

The Big Stick, Discipline and Negative Reinforcement

I have written about ‘the big stick’ before. It’s a symbol for an approach to discipline which emphasises
negative corporal punishment. It’s a very simplistic view that says, ‘set the rule, comply with the rule,
enforce the rule’. I have also written before about the zero tolerance approach with its absolutist
extremes and simplistic methods.

I come across this view every week, and last week was no different. I was walking with some people
on a work site and we came across an apprentice electrician. During the course of our conversation I
discovered he was working unnecessarily with live power. Later that day, I discussed this with a group
in training, and the immediate call came from one of the people: ‘Sack him!’ So with little thought
to context or to a frame of learning, this person believed that the best tool for compliance was zero
tolerance, the sack. However, this approach doesn’t work for creating a low risk workplace or helping
people learn.

I then chatted to one member of the group about what discipline was, and how he disciplined his
children and what methods worked. Such an approach hadn’t worked with his children. A rebellious
teenager will just leave home, they exit or ‘opt out’ in some way – physically or psychologically. This
actually increases their risks in many ways and decreases their self-discipline. Parents who easily give
away channels of communication and respect to young people are on a hard road to claim it back, and
some never do. The reason why hitting children in schools has been banned is not because schools are
‘weak’ but because it doesn’t work. Yet I hear all the time that schools are ‘soft’, as if all the problems
of society could be fixed if we were all somehow much ‘tougher’. Hitting is easy, cheap and immediate,
but all the research in child psychology shows that it doesn’t work and its effects are often long-term
and hidden. At the time, in the heat of the moment, and when an adult wants some easy satisfaction
and justice, those who believe in the myth of ‘spare the rod, spoil the child’, hit.

Discipline is about learning and following. The notion of disciple comes from the idea that one
admires and respects a certain mentor or model, and so wants to follow them. Jesus had many
disciples and they followed him not out of forced compliance, but out of admiration, motivation and
inspiration. If I learn how to get up on time and get to work on time, then I can say I am disciplined
with my time and priorities. The idea that discipline is just about punishment misunderstands
the concept. The best discipline is self-discipline, the behaviour that is owned and doesn’t have to
be policed.
When it comes to disciplining children, psychology research shows direct correlations between physical punishment and an increase in childhood anxiety and depression, behavioural problems including aggression, and impaired cognitive development - even when the child’s pre-punishment behaviour and development are taken into consideration. The issue is complex because it involves humans, whereas the zero model is black and white, simplistic and advocates a ‘one size fits all’ solution.

The West Australian newspaper (6 August 2011) reported that in Western Australia alone the unpaid debt from speeding fines is $252 million, representing 750,000 unpaid fines. The proposed solution? Stronger sanctions. Hmm, the government way, the populist way. The next step is to fill the gaols. The same attitude gets us involved in unwinnable wars at great cost and no solutions. Stronger sanctions for traffic fine defaults will result in more debt, more people driving unlicensed and an inability to police it. People know that speed cameras are not about saving lives but revenue raising, the respect for government in that regard having withered away years ago. No respect equals no discipline and certainly no learning.

I have written about the KUTA (Kick up the Arse) principle before. If only the world was that simple and easy. If only risk were not a ‘wicked problem’. Wouldn’t it be nice if we could make better sense of complex issues and be less enticed by populist simplistic nonsense.

**Workshop Questions**

1. In what ways do current efforts at risk aversion disconnect people from the realities of risk?
2. Give some examples of non human-centred approaches to solving problems that drive sub-cultural ‘hidden’ problems, e.g. ‘tick and flick’?
3. How does the language of ‘common sense’ disable thinking about risk?
4. Find examples of the use of space and place that disconnect people from thinking about risk. Perhaps take some photos of the examples and discuss with a group.
5. Think of an example of a problem that was espoused as being ‘solved’, but simply shifted elsewhere.
Transition

At the end of this chapter we presented the idea of wicked problems and the nature of complexity and risk. The term ‘risk’ can be traced back to classical Greek (riska) and having to do with cliffs. It can also be traced back to Homer’s story of Odysseus trying to save himself from the cliffs of Scylla where ships were often destroyed by heavy seas. The term later was translated into Latin as resicum, and subsequently into Spanish (reisgo) and French (risque). The term is originally associated with navigation and avoiding rocks. By the 16th century the term had become associated with the capacity to dare to navigate into the unknown, most associated with the age of discovery of the new world. It is little wonder that the word is also associated later with merchants who band together to ‘underwrite’ the risks associated with venturing into the new world, the beginning of insurance.

Risk is most associated with the uncertain and lack of control. Risk awareness in the ancient world was not about eliminating risk but about understanding and awareness. The risks of being crushed on the Cape of Good Hope (funny that it wasn’t called the Cape of Death) were very high but considered worth the trade-off for adventure and discovery, the advantage and gain over the potential for loss.

The quest for systems certainty in areas of risk is the quest for control and security. Systems addicts believe so much in the power of systems they often forget about the people who have to both understand and work with their systems. Systems and people are complex.

In their quest to cover off every knowable risk, every fraction of knowledge, every possibility or outcome, systems addicts attempt to make the uncertain more certain. The more unknowable a system becomes, the less secure the person working within it becomes. The system that drives this kind of insecurity does so by reducing the ability of people to think within it or outside of it. This is indeed a wicked problem.

The world is actually a more uncertain and risky place when human choice and thinking is taken out of the equation. Systems don’t adapt, people within them do. Systems don’t think, people within them do. Systems are only designed for their purpose, and when the context changes, the system has to be adapted because it no longer makes the uncertain manageable. Systems are developed by humans to help manage uncertainty. The system is there for the human, not the human for the system.

It’s great to have systems, they are tools for thinking, steps for action, an order for remembering. It’s good to know that we can use systems to create a sense of common process and knowledge. But let’s not forget that chance, opportunity, choice, trade-offs and gain thinking are embedded in the nature of what it is to be human. Let’s have systems, but not get addicted to them or think that every problem can be ‘tamed’.
CHAPTER 5
Complexity and Risk

My ‘risk’ was insignificant compared to the high risk of death or debilitation that the twins faced. All of the real risks were theirs. Ben Carson - Take the Risk

Admitting the existence of luck demands the acknowledgement that some things are beyond our control. Ed Smith - Luck

Deriving a solution to risk is complex. However, the way we can tackle the problem does not need to be. - Gabrielle Carlton

Introduction

One of the reasons people have trouble discerning and managing risk is because risk and uncertainty are complex. Engaging with uncertainty is challenging, and embracing it is difficult. Wouldn’t it be nice if life were simple and straightforward?

In this chapter we will continue to explore the idea that some problems are ‘wicked’ or unsolvable. The more one tries to ‘tame’ a wicked problem, the more one creates new and hidden problems that make the problem less solvable. The realisation that some problems are wicked helps in scoping problems and the way they are tackled. As any attempt to tame a wicked problem simply makes things worse, identifying the scope of the problem should preceed any attempt to either solve, fix, tame or tackle it.

When it comes to wicked problems the nature of the community (rather than just the individual) tackling the problem becomes most important. This is why the final chapter focuses on ‘communities of practice’ (CoP). The idea of ‘communities-of-practice’ was first put forward by Lave and Wenger. For Wenger, learning is central to human identity, and I would add, risk is essential to human identity. Learning and risk are social activities and a community-of-practice is the context within which we best learn. A CoP are those people with whom we associate in learning, meaning and activity.

When problems are wicked, no amount of individuals can help. Wicked problems require community-based methodologies and collaboration. Wicked problems also require new methodologies because traditional text-based and linear-based methodologies can’t handle the sheer volume and complexities associated with them. This is why the following chapter introduces the importance of visual and spacial literacies in understanding the complexities of risk.
When the Solution is Part of the Problem

The HSE in the UK recently announced they were setting up a ‘Myth Busters Challenge Panel’ to scrutinise health and safety in the UK to ensure that the current trend in risk aversion is addressed. The HSE pulled out their top 10 most absurd health and safety decisions as an example of the extent to which safety paranoia had got out of hand. These were:

1. Children being banned from playing ‘conkers’ unless they are wearing goggles.
2. Office workers being banned from putting up Christmas decorations.
3. Trapeze artists being ordered to wear hard hats.
4. ‘Pin the tail on the donkey’ games being deemed a health and safety risk.
5. Candy floss on a stick being banned in case people trip and impale themselves.
6. Hanging baskets being banned in case people bump their heads on them.
7. Schoolchildren being ordered to wear clip-on ties in case they are choked by traditional neckwear.
8. Park benches must be replaced because they are three inches too low.
9. ‘Flip flops’ (thongs) being banned from the workplace.
10. Graduates ordered not to throw their mortar boards in the air.
11. A bar refused a customer to carry drinks because they had not been trained in health and safety.
12. A charity shop unable to sell knitting needles because they were dangerous.
13. Banning yo-yos at schools on health and safety grounds.
14. Banning microwaves and kettles from workplaces.

We may understand the reason why such absurd rules are made. We may also be aware that fear diminishes learning and living if so, then we know that ‘risk makes sense’. However, if we don’t understand risk then we tend to demonise it. When risk becomes the demon, then zero becomes the hero.

So far so good for the UK. It’s good to see that the HSE is keen to reverse this absurd trend in non-sensemaking. Then, as if to dismantle the very good that they were trying to achieve, Minister Chris Grayling comes out with this clanger: ‘Common sense is the key to health and safety’ (http://www.telegraph.co.uk/news/politics/9196760/The-health-and-safety-myth-squad.html 11 April 2012).

I couldn't think of a worse thing to say regarding safety than such a phrase as 'common sense', unless it was the word ‘zero’. Here is why both expressions and their related discourse are dangerous:

1. Common sense is rarely defined. In my training I often ask people to define their understanding of the expression ‘common sense’ and I get as many definitions as people in the room. Wikipedia defines common sense as: beliefs or propositions that most people consider prudent and of sound judgement, without reliance on esoteric knowledge or study or research, but based upon
what they see as knowledge held by people ‘in common’. Thus ‘common sense’ (in this view) equates to the knowledge and experience which most people already have, or which the person using the term believes that they do or should have.

2. Common sense is highly subjective. We all interpret and filter information according to our own knowledge and experience. One can’t assume common understanding; rather, one must create it. This is why we have toolbox talks, inductions and meetings, to create common understanding.

3. Common sense is not all that common. It is a nonsense to propose that safety is objectively self evident to everyone. No organisation actually really believes in common sense, as is evidenced by the fact that they conduct inductions, escort visitors and supervise trainees. If one could act according to common sense then none of these measures would be necessary.

4. Talk of common sense is used as a blaming tool.

5. If common sense existed why would the HSE need to create a mythbuster squad? It is because it doesn’t exist that risk aversion nonsense trends abound.

6. Much ‘sensemaking’ is intuitive and based on experience, and we don’t share experience in common.

7. Risk is primarily attributed according to perceptions and experience, and we all vary in perception. This is why we have regulations and laws, to try and standardise the sensemaking of humans to eliminate the subjective attribution of risk. In some ways regulations are an effort to try and create a ‘common’ sensemaking around risk. But even the regulations are open to interpretation.

8. Common sense language is most spoken about by people who don’t understand the behaviour of others or the nature of risk. The expression is used to dismiss rather than understand human judgement and decision making.

9. The idea that there is an objective self evident idea of shared knowledge is, in itself, a denial of learning, individual difference, cultural difference and the science of perception. If common sense exists, why have training? The very act of calling for this thing proves that it doesn’t exist.

10. The language of common sense simply expects too much of others, has no boundaries and is premised on the idea that any behaviour that I don’t understand is by definition irrational. This means that risk for me makes sense but the risk of others is stupid. The language of common sense is then used to project blame and exalt oneself as superior.

So good on you, Minister Grayling. You just contradicted all that your flying squad is trying to achieve. How can you tackle myths with myths? No wonder the UK HSE is confused (http://www.shponline.co.uk/news-content/full/health-and-safety-challenge-panel-wades-into-seagull-saga).

We in Australia are lagging behind the UK, but I’m sure we will get there in 10 years.
Layers of Problems

Rittel and Webber (1973) formulated ten characteristics of wicked problems:

1. There is no definitive formulation of a wicked problem (defining wicked problems is itself a wicked problem).
2. Wicked problems have no stopping rule.
3. Solutions to wicked problems are not true-or-false, but better or worse.
4. There is no immediate and no ultimate test of a solution to a wicked problem.
5. Every solution to a wicked problem is a 'one-shot operation'; because there is no opportunity to learn by trial and error, every attempt counts significantly.
6. Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan.
7. Every wicked problem is essentially unique.
8. The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem's resolution.
9. The planner has no right to be wrong (planners are liable for the consequences of the actions they generate).
10. Every wicked problem can be considered to be a symptom of another problem.

In 2010 the Safety Institute of Australia (SIA) published a research paper by Wanger and Associates called Safety - A Wicked Problem, in which leading CEOs discuss their views on OHS transformation. The research project report highlights the complexities in managing risk and yet at the same time shows that people just want simple and understandable answers. This is why simplistic slogan-based propaganda, so popular in the Murdoch press and shock-jock journalism is so appealing. The whole problem of global warming, defined by many as a ‘Super Wicked problem’, is summed up in simplistic catch-cries like ‘stop the carbon tax’.

In managing risk, we are caught in a dilemma between the complexities, particularly the psychology of risk, and the demands of the KISS (‘Keep it simple, stupid’) principle. The trouble is, the psychology of risk is a complex issue and no amount of simplification will do it service. When it comes to human activity, indeed human judgement and decision-making, a simplistic approach doesn't make sense. The psychology of risk picks up where the effects of legislation, regulation and compliance run out of steam. There is simply a limit to how much legislation and punishment can achieve, and the more systems flood humans with punitive regimes, the more people default to personal micro-rules regardless of whether the systems are presented in black and white terms. The problem is further exacerbated by the fact that punitive approaches do not drive ownership but create dependence on the system itself.
What Layer is the Problem?

Craig Ashhurst is an associate of Human Dymensions and has been a colleague for more than 20 years. At the time of the publication of this book Craig was undertaking a PhD in Wicked Problems at the Australian National University (ANU) in Canberra. It was Craig who first introduced me to visual and spacial methodologies. In order to tackle wicked problems one needs to ‘think different’. The work of John Law (After Method, Mess in Social Science Research, 2004) is particularly helpful in understanding that traditional methods have limits when it comes to tackling wicked problems.

Table 1 has been developed by Craig to help people understand and tackle wicked problems. The table shows three levels of problems, the way they are labelled, the nature of the layer, what demands are placed on people and the method most associated with this layer of problem. The word ‘layer’ is used not just because problems can be multi-layered but because sometimes simple and singular problems can be encased within a wicked or complex problem and can entice people to believe that they have solved a problem, when in fact they have only solved a layer within a problem. The diminishing of risk, often taking out all human decision making or through the creation of barriers, also eliminates the need for human thinking and judgement in decision making. The by-product of eliminating human judgement from a task is the ‘dumbing down’ of people in the work place and the creation of greater fragility (Taleb) in the face of catastrophic events that require learning and adaptation at a later time. Whilst some see that ‘engineering out the idiot’ is a good thing, such a process simply creates less thinking and learning in the workplace.

Table 1. Comparison of Layers of Problems (by Craig Ashhurst)

<table>
<thead>
<tr>
<th>Label</th>
<th>Layer 1</th>
<th>Layer 2</th>
<th>Layer 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reality</td>
<td>Technical</td>
<td>Complex</td>
<td>Wicked</td>
</tr>
<tr>
<td>Experts</td>
<td>Single</td>
<td>Fragmented</td>
<td>Mulitple</td>
</tr>
<tr>
<td>Method</td>
<td>Best</td>
<td>Multiple</td>
<td>Transdisciplinary</td>
</tr>
<tr>
<td>Greek god</td>
<td>Fix</td>
<td>Solve</td>
<td>Tackle</td>
</tr>
<tr>
<td>Greek god</td>
<td>Apollo</td>
<td>Prometheus</td>
<td>Psyche</td>
</tr>
</tbody>
</table>

We can see from Table 1 that each layer of a problem has unique characteristics and that the application of one method, such as ‘fixing’, which may work for singular technical problems, cannot work for multi-dimensional wicked problems that require transdisciplinary communities to tackle them.

The Gods Understand the Problem

In order to further understand these layers of problems I have turned to the Greek gods to help as metaphors. A fascinating aspect of Greek mythology is that gods have weaknesses. The first thing we should note is that this model of divinity is incongruent with the idea that a god should be omnipotent (all powerful), omnipresent (present everywhere) and omnicient (all knowing). For the purposes of understanding the scope and method associated with each layer of problem I have selected three gods. Each god has been associated with one layer of problem and illustrates the thinking and engagement required with that layer.
The first god **Apollo** is associated with Layer 1, technical and singular problems that require direct ‘fixing’. Apollo is the myth which celebrates the clear light of the sun. He is the god of rational detachment, observation, logic and exactness. Apollo sees things at face value, simple and fixable. Apollo gives us manifested reality, and is concerned with the here and now. Apollo is the most beautiful and attractive of the gods. However he is also a killer, ruthless in his fixation on order, reason and harmony. Apollo is a ‘fixer’.

The second god is the Titan god **Prometheus**. Prometheus is the technocrat, the engineer and the instrumentalist. Prometheus is not focused on the future and likes to ‘take control’ of the moment. Prometheus is known for his trickery, cleverness and forethought. Prometheus is the creator of humans, although he gave little thought to his creation and created problems (animals) that came back to ‘bite’ him.

The third god **Psyche**, whom the ancient Greeks recognised in the butterfly, is not really a god when her story begins. Psyche is a human who has all the problems of humanity, including its many unpredictabilities. A mere mortal, Psyche meets Eros and marries him. Then she loses him and wanders the world looking for him, subsequently becoming the slave of Aphrodite and given impossible tasks to perform such as finding Death in hell and bringing it back in a casket. At last she is reunited with Eros.

In Greek mythology the gods were considered personifications of energy and how that energy related to humanness. It is important that the female god Psyche has been selected as the god for wicked problems. One of the main issues with endeavouring to ‘solve’ and ‘fix’ problems is the very masculine focus on fixing things itself. The quest to fix everything comes undone when it comes to wicked problems. We can observe this masculine quest to fix all things in many conversations on social media. It seems that conversation in itself is regarded with no value unless it proposes a solution.

The masculine approach to fixing everything is highlighted by the work of Tannen (*You Just Don’t Understand, The Argument Culture*) and Belenky (*Women’s Ways of Knowing*). The more popular publications of John Grey (*Men Are from Mars, Women Are from Venus*) also highlight this difference.

The myth of Psyche tells us that truth and absolutes are illusive. Whilst Apollo and Prometheus focus on control, it is Psyche who best manages contradiction, unpredictability and uncertainty. It is Apollo and Prometheus that dominate the risk, security and safety industries: all is rational, technical and controllable. It is Psyche that is most aware of the unconscious and best understands the ‘soul’ of risk. Apollo and Prometheus only deal with problems on the surface and lack insight into the complexities of the unseen and by-products of relationships. Psyche knows that much of reality is hidden and so knows she is in the dark. Apollo and Prometheus only see what is in the light and fail to venture into the dark; all is obvious. Apollo and Prometheus are precise and dogmatic, they focus on what can be fixed and controlled. Apollo and Prometheus believe that all matters can be solved by rational inquiry and technique. Psyche knows that sometimes much of what we look for is in the dark, and that darkness can only be tackled not tamed.

Neville and Dalmau (2010) write about the gods in organisations in their work *Olympus Inc: Intervening for Cultural Change in Organisations*. Neville and Dalmau use the Greek gods and Jungian typology to help explain the unconscious dynamics that dominate modern organisations, and metaphors that help precipitate organisational cultural change. Neville and Dalmau (2010, p. 76) comment:

> In this kind of intervention, the change agent abandons the role of ‘fixer’ and tunes into the organisation’s subjective experience of itself. She focuses on the point of incongruence where the organisation is ‘vulnerable to anxiety’, facilitating the organisation’s exploration of the ways...
(conscious and unconscious) it experiences the world and trusting the organisation’s ability to become what it is capable of becoming.

Why Risk is a Wicked Problem

Risk is a human, cultural and social psychological activity that engages with the unexpected. Risk is about what is unknown and what is unseen. After all, if we could see the outcome of an activity, where would be the risk? It is because risk is a human and social conundrum that it is a problem of fallibility. Wicked problems are problems of fallibility; there are no perfect systems in negotiating the uncertainty of human learning and development. Whilst the USA worried about the fatalities from 9/11, the fear of flying that ensued pushed more people onto the roads, doubling the road toll and exceeding the fatality count from the twin towers. Whilst the world worried about the death toll from the Chernobyl meltdown (9,000), each year more than one million Americans are diagnosed with, and more than 10,000 die from, skin cancer alone.

The shifting of uncertainty, the nature and by-products of human decision-making create outcomes that are unforeseen, novel and unique. Whilst the the Fukushima Disaster which followed the Japanese tsunami of 2011 could be called ‘an act of god’, it is clear that humans wanted to build a nuclear power plant, but lacked foresight in design and were incapable of preventing the meltdown. We are yet to learn what the flow-on effect from Fukushima, under quantum physics, will be.

Rittel and Webber’s ten characteristics of unsolvable ‘wicked’ problems are all applicable to risk.

Bandaid Non-Solutions and Trade-Offs in Risk

As much as we wish that life were simple, it isn’t. Indeed, when it comes to risk and safety, we found out from the SIA Report into the status of OHS in Australia in 2010, that safety was a ‘wicked problem’ (http://www.sia.org.au/downloads/News-Updates/Safety_A_Wicked_Problem.pdf).

‘Tame’ and ‘wicked’ problems are a concept developed in the late 1960s by two professors from the University of California: Horst W.J. Rittel and Melvin M. Webber. They developed the concept to address the complexity of attempting to resolve social policy issues. ‘Tame’ problems can be readily defined, and there is a structured process to use in resolving them, and it is clear at the end of the process if the problem has been solved. Examples of tame problems are a mathematical equation, a chemist analysing the structure of a compound, or a chess game. Tame problems can be complex, but the outcome is clear. ‘Wicked’ problems on the other hand, are inherently difficult to define, there is a lack of direct correlation between actions and outcomes, and it remains uncertain as to whether the problem has in fact been resolved.

It is interesting that when we try to solve problems simplistically and in isolation, we create by-products that are either shifted or hidden till later. For example, when we try to solve safety culture problems with excessive bureaucracy, like the development of the Federal Safety Commissioner, we create a whole new subculture of ‘tick and flick’ thinking and resentment. On the surface it appears like the problem is solved yet, under the surface, a whole new problem has emerged. This is the nature of a wicked problem. This has certainly been the case with the development of bans on plastic bags in my city.

Plastic shopping bags were banned in Canberra in November 2011. The motive for the ban was most ethical: to reduce landfill, pollution of waterways and protect wildlife. As a result a whole new stream of money was made in the making and selling of reusable bags. By mid-2012 most people in Canberra had become accustomed to the ban and were keeping...
reuse bags in the back of their cars. So far, so good. However, here is the by-product and trade-off: it turns out in a recent study from the University of Pennsylvania that this practice has resulted in a new health risk and subsequent fatalities (http://www.canberratimes.com.au/act-news/study-links-plastic-bag-ban-with-increase-in-foodrelated-deaths-20130208-2e2zf.html).

The consequence of keeping reusable bags in our cars is that such environments are a breeding ground for the E.coli bacteria. The boot of a car, an especially warm and dark place, is a wonderful breeding environment for dangerous bacteria. So bags that were used to carry vegetables, meat and other consumable products can become dangerous to our health, especially as they are generally not washed between uses.

The study focused on a plastic bag ban in San Francisco and compared instances of deaths for food-related illness in places without such a ban. The results showed a spike in deaths and emergency room visits from the day the plastic bag ban commenced. The increase in food related deaths and illnesses was 50%. So, it looks like the simple environmental solution has a very dangerous by-product. So is the next solution just as simple? Just wash the bags. Not so fast. There are more trade-offs. The washing of reusable shopping bags will have adverse environmental effects such as increased use of detergents, water and energy, thereby cancelling out the environmental idealism of the plastic bag ban.

Despite this complexity, it is most likely that Canberrans will accept the new health and fatality risk with the banning of plastic bags. Or they may lobby to reinstate the use of plastic shopping bags or wash the bags and accept the environmental trade-off. The opposition political party has already promised that if they are elected, the ban will be rescinded.

Whatever the result, this story illustrates the way that management of risk works. So if you hear a story about a simple solution to a problem in risk, just wait, and it will only be a matter of time before the by-product will become visible and the value of the trade-off will be realised.

The Gungahlin Bridge Collapse and BandAid Solutions

The Band-Aid was invented in 1920 by Johnson & Johnson employee Earle Dickson for his wife Josephine, who frequently cut and burned herself while cooking. The Band-Aid is a temporary dressing mostly associated with home first-aid. In the case of young children it is also a psychological tool for healing everything. It doesn’t matter what ‘hurt’ my grandchildren experience, a Band-Aid over the spot seems to heal the problem. This is not the case with wicked problems.

On 14 August 2010, a bridge in construction on the Gungahlin Drive Extension over the Barton Highway in Canberra collapsed. At the time of the collapse it was a concrete pour and 24 men rode the collapsing structure to the ground. These workers were steel fixers, form workers, concretors, supervisors and labourers (some were close friends of my son Josh, who was co-author of the first book Risk Makes Sense). Their stories tell the real nature of the culture of the project and cause of the collapse, although that is not the point of the current discussion. Luckily there were no critical injuries, despite the fact that some were trapped by rubble and nine taken to hospital.

At the time of the collapse news reports stated that this event would be a ‘wake up call’ and that changes to the industry would most likely follow. There was no wake up call. In less than 2 years the Canberra jurisdiction would experience a number of fatalities in civil construction that would prompt an inquiry and the release of the ‘Getting Home Safely’ report (Nov 2012).
The 'Getting Home Safely' report makes it clear that culture change is critical if the industry is going to better manage risk and safety. Unfortunately, regulators, unions and government agencies often look to systems and bureaucratic solutions to 'solve' the complex problem of culture change.

Figure 33. The Gungahlin Bridge Collapse

Cultural problems require cultural strategies. Confusing systems with culture often simply creates a larger, more wicked problem. In the case of the 'Getting Home Safely' report, the majority of the recommendations were systemic and bureaucratic in nature. This is often the strategy when government agencies seek to 'tame' complex problems. Sometimes the espoused solution is simply a band-aid and the real problem remains hidden or is shifted to a less visible or troublesome arena, only to surface later with equal force. Seeking to 'tame' wicked problems with such a strategy is fraught with hidden risks and sub-cultural dangers.

Workshop Questions

1. Think of some examples at your work where a proposed solution has created new problems.
2. What problems in your industry would you describe as 'wicked'?
3. Watch the movie 'It’s a Mad Mad Mad Mad World' and comment on how human decision-making and relationships create new problems.
4. Give examples of how the gods are alive at your work. Are Apollo and Prometheus in control?
5. When can a Psyche decision sometimes be the best decision?
Transition

We when think of complexity we sometimes think of things being ‘messy’. Sometimes a map appears to be messy, but when we are familiar with the terrain, it makes sense. There is a certain logic to maps and it is not linear, it is graphic and visual. Visual people, with visual learning styles, seem to do better at maps in the same way as artists are better able to express emotion and imagination than engineers. When we try to tackle uncontrolled and uncertain wicked problems the mind simply can’t contain everything, and a table or list is not good enough. Tables and lists don’t help manage relationships, they are too confined in their boundaries and the dimensions they need to communicate. This is why the development of visual and spacial literacy is so important to an understanding of risk. If risk is a human social activity then we need new tools to fathom its universe and new methods to tackle its dynamics.
CHAPTER 6

Visual Literacies and Learning

From the standpoint of an institution, the existence of a risk manager has less to do with actual risk reduction than it has to do with the impression of risk reduction - Taleb - Fooled by Randomness

I see what you mean - Anon.

Introduction

A critical part of tackling the realities of risk is engaging in a social psychological understanding of risk. Social psychology is about the way social arrangements affect people, their judgements and decision making. Social psychology is the study of the nature and causes of human social behaviour, with an emphasis on how people think towards and relate to each other. As the mind is the axis around which social behaviour pivots, social psychologists tend to study the relationship between mind(s) and social behaviours. Social psychology is also the scientific study of how people’s thoughts, feelings, and behaviours can be influenced by actual, imagined, or the implied presence of others.

One of the strategies for engaging in a social psychological understanding of risk is through a verbal, visual and spacial literacy. However, before visual and spacial literacy can be discussed an overview of the nature of social psychology may prove helpful.

Social Psychology and Risk

In 1908 William McDougall published Social Psychology, and in 1924 Floyd Allport published a book with the same title. It was Allport’s book that sent social psychologists, as distinct from psychologists, off into a wave of experiments to see how individuals were influenced by social arrangements. For a comprehensive look at a history of experiments with people, see Abelson, Frey, and Gregg’s Experiments with People: Revelations from Social Psychology. Research in social psychology exploded in the late 1920s and 1930s, further supported by Gardner Murphy’s Experimental Social Psychology and Carl Murchinson’s Handbook in Social Psychology.

Robert Caldini’s Influence: Science and Practice describes how people are influenced and persuaded by social arrangements and identified six underlying social dynamics that affect human judgement and decision making. Caldini’s six ‘weapons of persuasion’ are
1. Reciprocation. Anthropologists consider reciprocity to be a universal social norm.

2. Commitment to consistency. According to Festinger (1957) people are reluctant to behave in ways that are inconsistent with their public commitments.

3. Social proof. If we see many other people doing something, we are more likely to do it. The psychology of mass movements is foundational for understanding cults, ‘group think’, the authoritarian personality, gambling and risk, eugenics, xenophobia and host of social movements and subcultures in society.

4. Authority. If someone is recognised as being in authority we are more likely to do it. The experiments and work of Stanley Milgram (Obedience to Authority) demonstrated this.

5. Liking. People are more likely to be persuaded if they feel liked.

6. Scarcity. When we perceive something as scarce we are more likely to buy it, and make the most of the opportunity.

Kurt Lewin is sometimes called the ‘father of social psychology’. In a 1947 article, Lewin coined the term ‘group dynamics’. He described this as the way groups and individuals act and react to changing circumstances. Lewin theorised that when a group is established it becomes a unified system with unique dynamics that cannot be understood by evaluating members individually. This idea quickly gained support from sociologists and psychologists who understood the significance of this emerging field.

When risk and safety people debate with each other about risk, they generally do so from a range of assumptions about what it means to be an educated and functioning human in an organisation or society.

The reality is that we are greatly affected by what happens around us when it comes to assessing and managing risk. The main finding that we learn from social psychology is that conformity, obedience and social perception are all tied to context and situation, much more powerfully than to character. As covered earlier, when we attribute how people make sense of risk to personality, intelligence or ‘common sense’, social psychologists label this ‘fundamental attribution error’. That is, humans tend to overestimate the importance and power of individual personality and underestimate the influence of social situations.

The following discussion helps explain some of the fundamental principles and issues that social psychology brings to the understanding, assessment and management of risk and safety.

Belief Congruence

Belief congruence is a foundational idea behind a number of explanations of influence, controlling and noncompliant behaviours. Belief systems are important anchoring points for individuals and identity with groups. Congruence is therefore rewarding and attractive, whereas negative congruence produces negative attitudes. Belief congruence is understood by social psychologists to explain the attraction of prejudice, discrimination and a range of means of differentiation in social identity. Crowd behaviour and dissent from crowd behaviour are explained by the attraction of group and in-group dynamics.
Bounded Rationality

First posed by Herbert Simon (1978) bounded rationality, is the idea that in decision-making, rationality of individuals is limited by the information they have, the cognitive limitations of their minds, and the finite amount of time they have to make a decision. The truth is that humans are limited by what our minds and social constructs can manage. Humans have to make decisions without all possible information being available.

Bystander Effect

Recent studies of the Abu Ghraib incident in Iraq (American soldiers tortured prisoners) confirm many of the findings of social psychology regarding the way we tend to behave in groups. Most of us either conform or passively accept the status quo when under group pressure. Rosenhan (1973) in one experiment, admitted a group of mentally healthy and well researchers (anonymously) into a psychiatric hospital and no-one could convince authorities that they were not mental patients. One of the researchers was kept there for 7 weeks because hospital staff interpreted everything he did as confirmation of his mental illness.

Extensive research into what became known as Kitty Genovese Syndrome or the ‘Bystander Effect’ shows that people make sense of risk differently if they are on their own or in a group. This research followed the brutal murder of Kitty Genovese on March 13 1964, Kitty was stabbed to death 30 metres from her home in Kew Gardens, New York City. She cried for help, and the attacker drove away returning a second time and stabbing her again. There were dozens of witnesses who both heard and saw the event and yet none of them responded. Following the event there was public outrage at the ‘apathy’ of the 38 witnesses, the lack of response didn’t make sense. However, the work of social psychologists shows that we change our behaviour if we are in a large group, because it creates a diffusion of responsibility that is, if others do nothing we identify with them, not the victim. We tend to look around and if others don’t assess the situation like us we tend to doubt our own perception.

If you want to assess risks at work, the most effective tool is a low level conversation with no more than 2 or 3 others. The factors or Bystander Effect and Groupthink is so strong in large groups that it makes any sense of having properly assessed risk or any dependence on communication of risk highly unreliable.

Cognitive Bias

A cognitive bias is a pattern of deviation in judgement. Individuals create their own ‘subjective social reality’ from their perception of their engagement with others in groups and organisations. There are more than 250 recognised cognitive biases, effects and heuristics that affect the judgement and decision making of humans (http://en.wikipedia.org/wiki/List_of_biases_in_judgment_and_decision_making). Most biases and effects are socially conditioned.

Some of the most common cognitive biases are:

- Abilene Paradox: Organisations frequently take actions in contradiction to what they really want to do and therefore defeat the very purposes they are trying to achieve. The inability to manage agreement is a major source of organisation dysfunction.

- Anchoring or focalism – the tendency to rely too heavily, or ‘anchor’, on a past reference or on one trait or piece of information when making decisions.
• Availability heuristic – the tendency to overestimate the likelihood of events with greater ‘availability’ in memory, which can be influenced by how recent the memories are, or how unusual or emotionally charged they may be.

• Dunning–Kruger effect, in which incompetent people fail to realise they are incompetent because they lack the skill to distinguish between competence and incompetence.

• Fundamental attribution error – the tendency for people to over-emphasise personality-based explanations for behaviours observed in others while under-emphasizing the role and power of situational influences on the same behaviour (see also actor-observer bias, group attribution error, positivity effect, and negativity effect)

• Gambler’s fallacy – the tendency to think that future probabilities are altered by past events, when in reality they are unchanged. It results from an erroneous conceptualisation of the law of large numbers. For example, ‘I’ve flipped heads with this coin five times consecutively, so the chance of tails coming out on the sixth flip is much greater than heads.’

• Hindsight bias – sometimes called the ‘I-knew-it-all-along’ effect, the tendency to see past events as being predictable at the time those events happened. Colloquially referred to as ‘Hindsight is 20/20’.

• Hot-hand fallacy - Also known as the 'hot hand phenomenon' or 'hot hand', this is the fallacious belief that a person who has experienced success has a greater chance of further success in the future.

• Primacy effect, recency effect and serial position effect: items near the end of a list are the easiest to recall, followed by the items at the beginning of a list. Items in the middle are the least likely to be remembered

• Sunk cost effect: when we have put effort into something, we are often reluctant to pull out because of the loss that we will make, even if continued refusal to jump ship will lead to even more loss. The potential dissonance of accepting that we made a mistake acts to keep us in blind hope.

Cognitive Dissonance

Cognitive dissonance has been explained in previous books and explains the attempts made to alleviate the feeling of self-criticism and discomfort caused by the appearance of the conflicting beliefs. The idea that compliance forces, power, punishment, incentives and other behaviourist methods ‘convert’ people from ‘risky’ to risk averse is naïve. Such belief denies all that has been learned from the psychology of addictions, psychology of conversion, psychology of fundamentalisms, psychology of abuse, cults and religions, suicide ideation and psychology of goals. The cognitive dissonance cycle was introduced in Risk Makes Sense and begins as individuals form unconscious and conscious anticipations and assumptions, which serve as predictions about future events. Subsequently, individuals experience events that may be discrepant from their prediction. Discrepant events, or surprises, trigger a need for explanation, or post-diction and, correspondingly, for a process through which interpretations of discrepancies are developed. Interpretation, or meaning, is attributed to these surprises.
So it is that people construct frameworks in order to explain, understand and comprehend the stimuli which surround them. When they experience stimuli which do not fit into that framework or cognitive map, they experience a sense of cognitive dissonance that causes them to either reframe their thinking or make the stimuli fit their thinking. Sometimes people are able to go through the most amazing cognitive gymnastics to justify a strongly held belief. A study of cults or mass movements is a good place to start for further understanding of this phenomenon.

One of the driving interests in risk and safety is the demand for compliance. The study of cognitive dissonance provides an excellent framework for understanding why compliance is not always achieved in the risk and safety industry.

**Discourse Analysis**

Attributed to Leo Spitzer, Jurgen Habermas and Michael Foucault. Discourse analysis is concerned with the transmission of power in systems of thoughts composed of ideas, symbols, artefacts, attitudes, courses of action, beliefs and practices that systematically construct the subjects and the worlds of which they speak. For example, the language of safety is very important for the construction of meaning for organisations. Similarly the language of ‘zero’ in the safety industry creates mindsets preoccupied with reductionism, minimalism and control. The language of Behaviour Based Safety constructs a focus on behaviour-only approaches to safety.

**Dogmatism-Fundamentalism**

Following the work of Adorno et. al. on the authoritarian personality, Rokeach (1948, 1960) developed a theory regarding right-wing dogmatism and fundamentalism. Rokeach argued for a more generalised syndrome of intolerance based on closed-mindedness. It is characterised by isolation of contradictory belief systems, resistance to change in the light of evidence and appeals to authority to justify existing beliefs.

**Framing, Pitching, Priming and Language**

One of the foundations of social psychology is the idea of priming. Priming is anything that prepares and shapes decision making. The stimulus for priming can be anything from environment, tactile stimulation, text, language, semantics, space, place or group dynamics. For example, if you play the child’s game of making a person spell shop, hop, top, plop and flop, then ask them to quickly answer: What do you do when you see a green light?, the person says ‘stop’. Many experiments have been undertaken to show how people can be primed with temperature, which explains why climate seems to make a difference in the homicide rate.

Professor John Bargh has been the pioneer in this process and has shown that negative and positive primes can influence decision making, especially in how one attends to risk. The work of Amos Tversky and Daniel Kahneman in *Prospect Theory* (1974) shows that negative primes tend to increase risk taking.

The use of language is important in the study in social psychology and risk and safety. This is why the repetition of words and phrases that prime ‘dumb down’ thinking and poorly defined actions is important. For example, consider the use of phrases such as ‘common sense’, ‘can do’, ‘get the job done’, ‘whatever it takes’ and so on.
Heuristics

Amos Tversky and Daniel Kahneman (1974) were the first to propose that decision makers use ‘heuristics’ or ‘rules of thumb’ to arrive at their judgements. The advantage of heuristics is that they reduce the time and effort required to make decisions and judgements. It is easier to estimate how likely an outcome will be rather than engage in a long and tedious rational process. In most cases rough approximations are sufficient. The idea of heuristics is raised in Standards Australia Handbook 327: 2010 Communicating and Consulting about Risk. The handbook states (2010, p. 12):

Heuristics are judgmental rules or ‘rules of thumb’ shortcuts that people use to help gauge situations and help them to make decisions. Three of the most influential shortcuts used when people evaluate risk are ‘availability’, ‘representativeness’ and ‘anchoring and adjustment’.

The Handbook also states (2010, p. 13):

Heuristics are valid risk assessment tools in some circumstances and can lead to ‘good’ estimates of statistical risk in situations where risks are well known. In other cases, where little is actually known about a risk, large and persistent biases may give rise to fears that have no provable foundation; conversely, such as for risk associated with foodborne diseases, inadequate attention may be given to issues that should be of genuine concern.

Although limitations and biases can be easily demonstrated, it is not valid to label heuristics as ‘irrational’ since in most everyday situations, rule-of-thumb judgements provide an effective and efficient approach for estimating risk levels. It’s not unusual for specialists to also rely on heuristics when they have to apply judgment or rely on intuition.

But heuristics often leads to overconfidence. Both lay people and specialists place considerable (sometimes unjustified) faith in judgments reached by using heuristics. In particular, ‘awareness’ of a hazard does not imply any other knowledge than that the hazard exists, but people may be tempted to pass judgment and make decisions based on this alone.

Understanding how heuristics affect decisions is critical in developing learning and response in the assessment and management of risk and safety.

Implicit (Tacit) Knowledge

Implicit (tacit) knowledge was first introduced by Michael Polanyi in 1958 (Polanyi, M., (1962) Personal Knowledge: Towards a Post-Critical Philosophy, University of Chicago Press, Chicago) and describes knowledge that is not explicit. Explicit knowledge is that which can be written down, explained and shared, whereas implicit knowledge is sometimes not even known to the user until it is enacted. Implicit knowledge is sometimes known as ‘gut’ knowledge and is the kind of knowledge that is developed in the unconscious by experience and intuition over time. Much of our decision making comes from our tacit knowledge. For further reading, see Gladwell’s book Blink, Klein The Power of Intuition and Sources of Power, How People Make Decisions, Plous The Psychology of Judgment and Decision Making.

There are a number of important connections between the idea of implicit (tacit) knowledge and the enactment of the unconscious. The kind of decision making that uses intuition is said to be non-rational or arational. Non-rational decision making is not irrational but rather works in a whole new dimension of the mind that may not engage the rational (slow) mind. This has been explained by Kahneman (Thinking Fast and Slow). It is from the unconscious and intuition that a great deal of fast thinking and enactment comes. This is where heuristics (mental micro-rules and shortcuts) originate.

Intuition is the way we translate our experiences into action. It is why learning by experience is an important mode of learning. Intuition is not a bias that needs to be suppressed, nor is it magic. Rather, it is a non-rational mode of thinking that needs to be better understood.
Intrinsic Motivation

What are the key drivers of human behaviour, particularly in groups and organisations? What are the motives which drive human action, thinking, judgement and decision making? A useful acronym to help remember the six major motives and drivers of human psychosocial action is BUCCET. BUCCET stands for:

- Belonging - first and foremost, people need to belong. Isolation and rejection are major turn-offs to humans. People need to be in relationship in order to survive and thrive. It is through belonging that we develop and establish identity.

- Understanding - people need ‘to know’; this helps them adapt and predict the fundamentals of living. When we know, we can construct our reality, attraction and better establish our belonging.

- Control - when we belong and understand we then learn to control and manage ourselves, our environment and others in the world. This is how we make sense of self in position to others and our environment.

- Communication - the need to engage, interact, connect, and attract and reject others is founded on the basics of communication, language and discourse.

- Effacing Self - people need to more than just belong, they need to feel special, through self-esteem, self-improvement and self-sympathy. Self-enhancing also explains aspects of attraction, attribution, attitudes, helping, aggression and social influence.

- Trust - when we trust we can adapt better to the world and others and, with effective communication, cooperate and interact with others. This builds mutual altruism and group loyalty.

These are the fundamental motives which are key to grasping what motivates and de-motivates people. The social psychology of leadership suggests that getting the context right first is the key to motivation. We need to create an environment where these fundamentals are fostered.

The study of intrinsic motivation was put on the map by Albert Bandura (http://www.simplypsychology.org/bandura.html#sthash.XDxP6IdS.dpuf) who was one of the founders of social learning theory. There are three core concepts at the heart of social learning theory. Firstly, people can learn through observation. Secondly, internal mental states are an essential part of this process. Finally, just because something has been learned does not necessarily mean that it will result in a change in behaviour. Bandura demonstrated the effectiveness of his theory through the ‘bobo doll experiment’ (http://www.youtube.com/watch?v=hHHdovKHDNU).


Learning and Styles of Learning

In risk and safety, the role of learning is the fulcrum on which everything is balanced. Any theory of risk and safety that excludes knowledge or definition about learning is incomplete. One of the best ways to judge the effectiveness of an organisation’s focus on safety and risk is to see if the word ‘learning’ appears anywhere or prominently in their discourse. There are many organisations that talk about ‘zero’ but never use the word ‘learning’ when discussing risk and safety. Some companies have
even substituted the word 'zero' for safety and so prime their population by not even using the word ‘safety’ when talking about risk.

In 1983 Howard Gardner released his book *Frames of Mind* and shook the established world of schools, education and learning by proposing that humans have eight or more ‘learning intelligences’. Gardner’s work shows that even the way we conduct inductions and training in risk and safety doesn’t ensure learning. The eight learning intelligences are represented graphically in *Risk Makes Sense* (The Eight Learning Intelligences). The fact is that people learn differently, and learning effectiveness varies according to learning intelligence. This is why some people learn much better by doing than by theorising. Unless organisations embrace the concepts of learning, motivation and the perception of risk in their approach to safety, their focus will remain fixated on systems, regulation and the physicality of risk. The idea of safety ownership will remain foreign to their organisation.

**Reciprocal Determinism**

Reciprocal Determinism was postulated by social cognitive theorist Albert Bandura. Reciprocal determinism states that the situation people find themselves in will influence both their behaviour and their attitudes. People’s behaviour influences both their attitudes and the situation. People’s attitudes influence their perceptions of a situation and, in turn, influence their behaviour.

**Risk Homeostasis**

Risk homeostasis holds that everyone has their own fixed level of acceptable risk. The famous Berlin Taxi Experiment first conducted by Wilde in 1981 demonstrates the idea of ‘risk compensation’. What this means is that people adjust their response to safety technologies. Safety technologies are not neutral but are interpreted. It is even possible that some safety technologies increase rather than reduce risk. This is because humans tend to resist external controls and prefer to ‘own’ their decisions. The current thirst in society for ‘edgework’ exemplified in ‘X-games’ is evidence of risk homeostasis. Further see: Zinn in *Social Theories of Risk and Uncertainty*.

**The Authoritarian Personality (TAP)**

The authoritarian personality (TAP) is a personality type of an individual who puts his or her value in strength and leadership, and believes that those who do not think similarly are simply weak. An individual with this type of personality is often unwavering and critical, with a superstitious and unfailing belief that a power larger than him or her is governing fate. During the mid-1940s, researchers first developed theories that racism is also an inherent part of an authoritarian personality.

The *Authoritarian Personality* was written by Adorno, Frenkel-Brunswik, Levinson, and Sanford, researchers working at the University of California, Berkeley, during and shortly after World War II. Adorno et. al. developed a set of criteria by which to define personality traits, ranking these traits and their intensity in any given person on what it called the ‘F scale’ (F for fascist). The authoritarian personality type Adorno et. al. identified can be defined by nine traits that were believed to cluster together as the result of childhood experiences. These traits include conventionalism, authoritarian submission, authoritarian aggression, anti-intellectualism, anti-intraception, superstition and stereotypy, power and ‘toughness’, destructiveness and cynicism, projectivity, and exaggerated concerns over sex.

TAP (and the work of Milgram) helps explain why the Nazis in World War II were able to be so systematic, efficient and calculated in their extermination of Jews. TAP also helps explain the dynamics of xenophobia and eugenics.
The Perception of Risk

All risk involves a degree of uncertainty and subjective attribution. Slovic (The Perception of Risk and The Feeling of Risk) has shown that perception of risk varies according to life experience, cognitive bias, heuristics, memory, visual and special literacy, expertise, attribution and anchoring. Slovic uncovered three basic dimensions connected to public perceptions of risk:

1. Dread risk: a perceived lack of control, dread, catastrophic potential, fatal consequences and the inequitable distribution of risks and benefits.
2. Unknown risks: judged as unobservable, unknown and new, and delayed in their manifestation of harm.
3. Level of exposure: refers to the number of people that can be harmed at one time.

Humans tend to attribute greater risk (aggravated risk) when a higher number of people can be harmed in a shorter period of time. People tend to mitigate risk when the risk is unknown or delayed over time with fewer people exposed to the risk.

The Unconscious and Enactment

This idea has been championed by Bargh (Social Psychology and the Unconscious and The New Unconscious) and his research shows that many of our decisions and judgements are ‘primed’ by the anchoring of words or social context. There are strong connections between what has been discovered by Bargh and discourse analysis. For this reason organisational culture programs need to take much greater care with discourse, communications, language, words and symbols.

Prof. Karl E. Weick introduces the idea of enactment in his works (The Social Psychology of Organizing, Sensemaking in Organisations and Making Sense of the Organisation). Much of what we decide is ‘enacted’ by the unconscious. In other words we do things without ‘thinking’. This doesn’t mean we do things that are ‘irrational’, but rather they are non-rational (arational). The enactment of behaviour from our unconscious or implicit knowledge enables us to manage the complexities of life without having to stop and analyse everything in every moment. The use of intuition, autopilot and heuristics is critical in the shaping of behaviour and decisions in social psychology. These comes from Minds two and three in the brain as illustrated in the Risk Makes Sense ‘One Brain Three Minds’ diagram.

Much more could be discussed about these and other social psychological influences on human judgement and decision making. There is much more to learn about why some orthodox risk and safety programs and initiatives don’t work. However, social psychology is no silver bullet; it just helps explain why there are no silver bullets, and it extends the journey. Once people stop looking for silver bullets and begin to be realistic about human judgement and decision making, then they may be better able to make sense of risk, and broaden their approaches to its understanding, analysis and management.

This concludes a brief overview of the key elements of what Social Psychology considers fundamental in discerning the nature of risk.
The Geography of Space, A Guide to Effective Relationships and Leadership

You may not be familiar with the idea of the Geography of Space or the Architecture of Social Meaning. It’s about how space is used and the results of this use. You may not be aware of it but when you go to a football game or rock concert, the way people are marshalled or ‘funnelled’ into and out of areas has (hopefully) all been planned. This can be done well or disastrously, as was seen in 2013 when more than 100 people died in a mob stampede in Germany, as they were funnelled through a tunnel.

How often is the geography of space an agenda item in staff meetings in discussing risk?

It’s amazing how the poor use of space can quickly spark frustration and anger (just ask anyone who doesn’t live in Canberra about their first drive around the city!) I had a young friend who recently joined a project, theoretically on the OHS team. They actually had no physical place for him to sit with the safety team, so they put him in a hallway near the kitchen door, where 300 people walked by all day. I wonder why he didn’t feel like he belonged. After all, human belonging is one of our greatest drivers and needs; if people don’t feel like they belong, they get depressed, lonely and sick, lose purpose, and cease being able to work effectively. I saw it happen often in the Public Service. We used to call it ‘the transit lounge’, where people were punished for being noncompliant. Give them an isolated office with little to do and just watch what happens. It happened to a good friend of mine; its not nice watching someone slide into depression and get sick.

So if you think a good use of space just happens accidentally, you will get what you deserve: an accidental use of social space. If you realise that access, traffic flow, incidental engagement, exposure to others, assembly points, presence, community and physical vision are critical, you will plan and reassess the way space affects people in your workplace. Often we end up with social and political problems in organisations just because of the way we use space.

Sometimes, we choose a certain space in a building, car park or locker room for convenience; the easiest options often look the most attractive (this is the priority of ease over purpose), but they are not necessarily the best options. Often the easiest option is for best for oneself but not for others. Such options rarely build relationships and often restrict access, traffic, team development and engagement.

All buildings and use of space have social meaning, as we have learned from the important work of Soja (Postmodern Geographies) and critical theorists. The study of how space transforms social behaviour and attitude was first presented by Foucault and the work of Postmodernists and Poststructuralists. Foucault studied the way prison architecture/geography influenced behaviour and showed how the use of the physical line of sight/observation, what he called the ‘panopticon’, can influence behaviour.

You might want to read further on these sources sometime, but for the moment just think about the way your workplace, job site, office space, meeting areas and building architecture limit social relationships, engagement, access and presence. It’s not that people necessarily want to ‘hide’ at work, but the way space is designed can limit the ways people can interact with one another.

Here are some hints, look at:

- multiple entry ways and exits
- physical barriers
• traffic patterns
• attractions (toilet and kitchen locations/design)
• location of managers’ offices
• furniture
• location of younger employees to older employees
• location of coaches and influencers of social climate
• location of photocopy and storage facilities, and so on.

What is Visual and Spacial Literacy?

Visual and spacial literacy is about the understanding the transfer of values, culture, beliefs, power and discourse through language, use of space and place, and visual engagement. Some of the most visually literate people I know are experts in instructional design, design and information visualisation. Visually literate people ‘see’ how information is transferred visually and unconsciously. Whilst I have discussed the psychology of perception in previous books, visual literacy is more about the perception of politics, power (discourse), purpose and intent in design and the social arrangements of space. It also relates to how symbols and images convey meaning and power; this is called semiotics.

An understanding of how the eye and mind works with colour, size, luminance, depth, contrast, proportion, position and placement is foundational for the development of visual literacy. The study of colour alone and its effect on human perception, emotion and decision making is fascinating. A study of the psychology of colour shows that the arrangement of colour, tone, shade, saturation and intensity affect mental, objective and subjective associations. This is why minders of politicians and celebrities spend a great deal of time on appearance and colour. Scholars such as Enns (The Thinking Eye, The Seeing Brain), Ware (Information Visualisation, Visual Thinking for Design) and Rhodes and Thame (Colours of Your Mind) are a good place to start.

It is not by chance that the icon for the publisher (Scotoma Press) of this book is the Egyptian all-seeing eye. The all-seeing eye is most often associated with the Eye of Horus and denotes seeing all things. A similar eye, depicted on the Great Seal of the United States, is known as the Eye of Providence. Our eyes are the window to perception. Norretranders discusses the ‘bandwidth of consciousness’ in his book The User Illusion: Cutting Consciousness Down to Size, and tells us that most of what comes into our eyes is received unconsciously. When this data is excluded from consciousness we call it ‘exformation’, whereas that which is made conscious is called ‘information’. What we exclude from consciousness is just as important as what we include, which demonstrates the subjective nature of knowledge or what we think is important. And what is important to one may not be so to another.

When it comes to bandwidth, conscious processing of visual information is quite slow. On average, visual information processing averages 30 bits a second. Even for the upper limit of the most alert visual processing, the best would be 50 bits a second. However, once that data is in the brain, our subconscious processes it at billions of bits a second. Much of this processing occurs unconsciously and, according to Libet’s research, runs about half a second ahead of conscious processing. That is, many of the acts we perform are decided before we decide to perform them! The speed of minds 1, 2 and 3 were discussed in Risk Makes Sense.
Much of what is important to us is invisible, such as love, courage and compassion. We can see the effects of faith, hope and love, but we cannot see such values in themselves. They are hidden in the mind and most often extracted via perception. The complexity of the visual pathway, the multitude of different cells, the conundrum of intake of images, and reversal and flipping of images is most complex. Give the limits of visual perception, it is a wonder that we see and process visual data so well.

Figure 34. Visual Pathways

Visual and Spacial Observations

As part of the Post Graduate Social Psychology of Risk Program I conduct some experiential learning in Unit One by undertaking an observation walk in the Parliamentary Triangle in Canberra. One of the best ways to learn about visual and spacial literacy and associated discourse is to experience it. In the Post Graduate program I lead a number of experiential learning exercises that help people experience the importance of visual and spacial literacy understanding of how social arrangement influences decision making in risk. Without a visual and spacial understanding of the influences on risk, it is unlikely that risk will make sense or that one will have sufficient perception to discern real risk. A visual and spacial understanding is critical in tackling risk as a wicked problem. One of the experiential learning exercises in the post graduate program is undertaking a walk in discourse analysis. Such a perception walk can be undertaken anywhere but because the program is conducted in Canberra, the social politics of the city are especially suited to experiencing and developing visual and spacial literacy.

Canberra, the capital of Australia and the city of the Australian Capital Territory (ACT), was the compromise between the two largest competing states and cities at the time of Australian federation. Canberra, roughly half way between Melbourne and Sydney, located on the Limestone Plains is a ‘planned’ city, designed by Walter and Eliza Burley Griffin. Section 125 of the Constitution specified that the capital must be situated in a Commonwealth territory within New South Wales, but at least 100 miles from Sydney. The Australian Capital Territory was chosen in 1908 as the result of an extensive search about 300 kilometres south-west of Sydney, in the foothills of the Australian Alps. Canberra was established in 1913.
In many ways Canberra is a political city, its reason for existence is the seat of power - parliament. The parliamentary triangle is at the centre of the city and bridges across Lake Burley Griffin, named after the architect designers of the city. The designers were selected from an international competition. Due to the activities of World War I Canberra’s first blocks of land for residential and commercial use were sold by auction on 12 December 1924. Parliament House was not opened until 1927. It was not until after World War II that Canberra developed beyond that of a small country town and from the 1950s to 1970s began to boom as a thriving city. Everything about the early design of Canberra centred on the parliamentary triangle as the centre of political and symbolic power.

An experiential walk around the parliamentary triangle with a social psychology ‘lens’ for analysis, observing the dominant discourse, is a wonderful learning event, providing insight into the way structures, design and space communicate and influence meaning, power, discourse and identity.

Social Psychological Lenses

As a child I was always fascinated by binoculars. Depending on which end you look through you can be long-sighted or short-sighted. When I first got to play with binoculars I was intrigued by how something so close could look so far away. Of course, as a child, the temptation is to play with things and experiment in how things are not designed to be used. The sense of curiosity, discovery, investigation, imagination and inquisitiveness are essential to learning. These qualities are the drivers of learning and play, also key factors in risk and leaps of faith in uncertainty.

In many ways knowledge of social psychology brings the key elements of risk into view, whereas ignorance of social psychology enables real risk to be pushed into the distance. When one denies human fallibility and entertains crazy ideas such as zero harm, ‘all accidents are preventable’ and nonsense ideas like ‘common sense,’ then one will be consumed by the ‘cosmetics of risk’ rather than real risk. When one knows how social arrangements and psychology affect human judgement and decision making, then one sees that much of what is undertaken in the name of risk management is more about the ‘appearance’ of managing risk than the reality of risk leadership.

The picture of binoculars reminds us of being psychologically and developmentally short-sighted. Indeed, the design and quality of the binoculars also affect the quality and view of the world. Sometimes it just depends which end of the binoculars you look through. Counter-intuitively, the longsighted view is the more comprehensive and mature view.

Figure 35. Binoculars and Social Psychological Lenses
Social psychology studies human judgement and decision making using the interchangeable and multi-layered 'lenses' shown in Table 2. In using the word 'lens' the idea is conveyed of looking through something to change perception and understanding. When one looks at everyday things through a social psychological lens one 'sees' new relationships, influences and pressure through the use of social space.

Table 2 - Social Psychology Lenses

<table>
<thead>
<tr>
<th>Decision Making</th>
<th>Obedience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationships</td>
<td>Attraction</td>
</tr>
<tr>
<td>Communication</td>
<td>Pro and Anti Social</td>
</tr>
<tr>
<td>Persuasion</td>
<td>Community</td>
</tr>
<tr>
<td>Influence</td>
<td>Helping</td>
</tr>
<tr>
<td>Power</td>
<td>Conformity</td>
</tr>
<tr>
<td>Aggression</td>
<td>Authority</td>
</tr>
<tr>
<td>Politics</td>
<td>Salience</td>
</tr>
<tr>
<td>Groups</td>
<td>Belonging</td>
</tr>
<tr>
<td>Prejudice</td>
<td>Attachment</td>
</tr>
</tbody>
</table>

As well as viewing the world through the lenses of social psychology, it is also helpful to think about, discuss and analyse how various disciplines and subject areas also act as filters for interpretation and reveal particular interests in the world and perspectives on risk. The combinations of these lenses and filters are activated in analysis, and new insights and perceptions are gained about ourselves, others, the community, risk and the world about us.

Table 3 - Discussion and Analysis Filters

<table>
<thead>
<tr>
<th>Political</th>
<th>Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>Construction</td>
</tr>
<tr>
<td>Media</td>
<td>Psychology - Emotions</td>
</tr>
<tr>
<td>Religious</td>
<td>Judiciary - Legal</td>
</tr>
<tr>
<td>Social- sociology</td>
<td>Military</td>
</tr>
<tr>
<td>Geography</td>
<td>People</td>
</tr>
<tr>
<td>Community</td>
<td>History</td>
</tr>
<tr>
<td>Public service</td>
<td>Commercial</td>
</tr>
<tr>
<td>Arts</td>
<td>Technical</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Science</td>
</tr>
</tbody>
</table>
Visual and Spacial Literacy Learning by an Experiential Walk

One of the best ways to develop spacial literacy to to observe and walk. This is how indigenous communities have learned over centuries to understand their environment. Boyd (2007) explores this way of thinking in his book *Connecting Into Observation and Awareness*. For Boyd, every blade of grass communicates activity and meaning. For us, our spacial and social arrangements visually communicate our politics, purpose and development.

The following discussion and photos are selected from an experiential walk conducted as part of the Unit 1 in Graduate Diploma in the Social Psychology of Risk at the Australian Catholic University. The experiential walk is not just about looking but also ‘feeling’ the politics and meaning of place and space.

**Figure 34. Site of Canberra Hospital Implosion**

As part of the unit, students undertake a case study of the Royal Canberra Hospital Implosion Disaster on 13 July 1997. The case study investigates the death of Katie Bender through the social psychology of causality. Following the case study students explore the site of the fatality and visualise the nature of the disaster and related issues studied in class.

**Figure 35. Australian of the Year Walk**

The Australian of the Year walk is a collection of plinths located on the foreshore of Lake Burley Griffin, Canberra. The Australian of the Year Award was first presented on 26 January 1961. Incorporated in the pathway walk are five metal strips set flush in the concrete, representing the five music stave lines. The plinths are placed in musical note position to the score of the national anthem, *Advance Australia Fair*. Fixed to each plinth is an anodised aluminium plaque containing the names and images of the Australians of the Year. A study of the recipients provides opportunity to analyse who and what the nation considers important in the social and political landscape.
Recessed back from the foreshore is the smallest and least prominent of artefacts in the parliamentary triangle, the Peace Park, a flat ornamental space dedicated to peacemakers. The park is based around a central marble square inscribed with national, indigenous and international words for peace. People can walk on the marble surface of the central object of the park which is sparse and bland. This space stands in stark contrast to the dedication and grandeur of objects in the parliamentary triangle constructed to the memory of war.

Walking from the foreshore of Lake Burley Griffin to Reconciliation Place involves walking through a funnel-like path that visually links the central axis of the parliamentary triangle. The parliamentary triangle is an isosceles triangle with the Australian War Memorial at the centre of the base and New Parliament House at the point. This forms an axis of military and political power.
The High Court building is an outstanding example of late modern Brutalist architecture. Completed in 1980, the 40-metre tall building is essentially one of concrete and glass comprising a number of major functional elements, namely a large public hall, three courtrooms, an administrative wing, and Justice chambers. When one enters the building one is stunned by the height of the ceiling which creates a cathedral-like awe in the process of looking up (jaw drops and mouth opens). The commanding height of the building and use of space demonstrates an extraordinary feeling of power. Most of the external and internal walls created by the 18,400 cubic metres of concrete used in the construction have been subjected to a process known as ‘bush hammering’. This space communicates the discourse of power in a most profound way.

A walk from the High Court to the back of the National Gallery of Australia (NGA) is approximately 100 metres. The grounds of the NGA provide many examples of how visual and spacial literacy influences thinking and feeling, including the Fujiko Nakaya Fog Sculpture. Located on the southern side of the NGA is Skyspace, a sculpture that has to be entered to experience its lessons in space and place. Surrounded by water at eye level and situated inside a mound, Skyspace creates a sense of wonder and awe about the Earth, sky and space. This space stands in contrast to the communication of power in the High Court.
The shape, space and visual structure of the Australian War Memorial (AWM) was discussed in *Risk Makes Sense*, particularly with regard to culture and symbolism. The AWM on this walk places the focus on the Art Deco design and layers of symbolism in the dome of the Hall of Memory. The stain glass windows carry fascinating symbolism for any scholar of culture and design.

The dome itself conveys Rising Suns base-to-base to make shafts of light radiating from the centre of the dome to the cornice at the rim. The six million piece mosaic inside the dome illustrates rays of light symbolising the seven States of Australia. They emanate from a central spiritual sun to the cornice. The stars of the Southern Cross are superimposed over the sun. From the base of the dome stylised hands deliver the souls of the dead through clouds and blue sky to Heaven. The spirits are symbolised by simplified winged coffins, their shapes reminiscent of Egyptian mummies.
As one looks from the Hall of Memory doors down the Commemorative Area and the Flame of Remembrance, one can see Parliament House and its commanding flag pole. The AWM describe the style of the building as a ‘stylised Byzantine profile’. The two fortress-like towers provide a window-frame view of the seat of power.

Workshop Questions

1. The social psychology of risk is all about how social arrangements affect risk. Can you think of any social structures at your work that change the way people understand risk?

2. Think of the reporting of risk in your organisation. Can you detect any cognitive biases in the way risk is reported, e.g. hindsight bias, attribution, anchoring etc?

3. How does your organisation motivate people to take ownership for risk?

4. Think about the geography of space at your work. How do spacial arrangements change behaviour and attitudes?

5. Use the social psychological lenses to explore various characteristics of your organisation.

Transition

Renn (2008) states that ‘humans do not perceive the world with pristine eyes, but through the perceptual lenses filtered by social and cultural meanings, transmitted via primary influences such as family, friends, subordinates and fellow workers’. All concepts of risk share one central idea: the distinction between possible and chosen action. If humans had the ability to see the future, the word ‘risk’ would make no sense.

In this chapter we have seen how a study of the social psychology of risk can bring new understanding as to how space, place and visual literacy can enhance our understanding of risk. The following chapter explores a range of visual tools to assist continuing reflection on the nature of learning and risk. These tools are designed to help think more about how risk works at an unconscious level.

As you move to the final section of the book the focus moves to the application of practical tools and suggestions for how to engage with risk in a meaningful, sensible way. Whilst the tools are props for thinking, they can be used in the workplace (as they are with many Human Dymensions clients) to assist the discerning of risk. These tools and ideas are but one way we can learn to engage with real risk.
SECTION THREE

Connecting with Risk
CHAPTER 7

Visual Tools for Learning

Not only did the brainstorming web allow me to see the relationships between these attributes, but it disclosed overlaps, redundancies, and omissions. - David Hyerle

Uncertainty refers to unknown probabilities and therefore implies a form of indeterminacy that expands the creative possibilities for human agents. - Lyng

Introduction

In the first book Risk Makes Sense, a number of options were presented that described verbal solutions to the problem of risk aversion. In the discussion on the importance of conversations, framing, pitching and priming language, the ‘Your Talk Matters’ conversation tool was introduced. This was followed by a list of essentials in conducting an effective conversation. The importance of dialogue cannot be over estimated in management and leadership in risk. Language in effective conversations is a major influencing tool in leadership in risk. The importance of good goal setting and the psychology of goals was also discussed in this context.

In the second book For the Love of Zero, further discussion on language and leadership in risk was presented, including the importance of observing and listening as strategies for humanising the focus on risk. The nature of language and how it influences and shapes behaviour were discussed in relation to goal setting and management of risk. Towards the conclusion of the discussion were some graphic illustrations of how a crisis affects a community, as well as attributes of high reliability organisations. Sixteen diagrams were also presented to graphically represent the dimensions of organisational social politics and leadership. We will return to the discussion and nature of community in the final chapter of this book.

The purpose of this chapter is to introduce some visual tools for learning and critical thinking in risk. The emphasis on visual literacy complements the discussion in previous books on the framing, pitching and priming of language. However, visual language is not just another mode of communication and has some unique capabilities in helping tackle wicked problems. The discussion of this chapter is not intended to be a treatise on the psychology of perception, neurobiology of vision or visual thinking. You should explore these topics when you can in relation to this chapter. The purpose of this chapter is to introduce a number of visual tools to assist critical thinking in the management of risk. As part of the discussion there will be some introductory thoughts on visual thinking and visual literacy.
In this process of text-based explanation, I have struggled to explain the intent and strength of the relationships between Gardner’s eight intelligences. Indeed Gardner’s book *Frames of Mind* at 450 pages is a difficult read for those uninitiated in educational practice and theory. The Learning Intelligences Map (Tool 1) helps remind leaders and educators/trainers that all learning is not cognitive, indeed, very little of it is. The map provides a framework for checking the modes by which we engage others in learning in our organisations.

**Tool 1. Human Dimensions Learning Intelligences Map ©**

For the visually literate, the Learning Intelligences Map captures much more, and connects differently with the unconscious, than hundreds of pages of text. This is not intended to diminish the importance of text, but rather to elevate the value of other verbal and visual literacies. For the purposes of this book the ninth intelligence, ‘risk intelligence’, has not been added to Gardner’s work. The inclusion of risk intelligence in Gardner’s model will be demonstrated in the next book.
Understanding Conscious and Unconscious Decision Making

The second tool to be introduced in this chapter is the Conscious/Unconscious Question Mark (Tool 2). The way we make decisions and judgements unconsciously, and the knowledge we hold in our subconscious, have been discussed in previous books. However, it is challenging to remember that this is how humans primarily function, because our conscious is so good at rearranging data, information, space and time to convince us otherwise. We know this from the work and experiments conducted by Benjamin Libet and others. Libet showed that human acts are initiated before we decide to perform them. You can read more about Libet’s work in that of Norretranders.

Nerve cells work electronically; electric signals are the language of the brain and can be measured. Libet put his subjects in front of a television screen and showed them a revolving spot, just like the sweeping second hand on a clock. Unlike a normal clock, Libet’s spot took 2.56 seconds to do a sweep, rather than 60 seconds. Many psychologists use this tool, called Wundt’s Complexity Clock (named after Wilhelm Wundt) to measure reaction times. Without going into the extensive details of the methodology and details of the experiments, Libet was able to establish that human readiness to act precedes action by 0.55 of second. Consciousness starts 0.20 seconds after we act, which means we become conscious of our actions 0.35 seconds after the readiness potential starts. The desire to carry out an action becomes a conscious sensation long after the brain decides to initiate it. Consciousness does not occur before the action is performed. Even when we think we have made a conscious decision to act, our brain starts half a second before we do so and we are not aware of it. Reactions in particular demonstrate that responses and actions come from the unconscious. We snatch our fingers away from the stove, and then we think ‘ouch’; not the other way around.

Libet’s work begs the question: How can humans be conscious in real time? Consciousness lags behind action but our subjective perceptions do not. Libet discovered that our consciousness performs a temporal readjustment backwards, so that the awareness of an outer stimulus is experienced as if it happened immediately, even though half a second passes before we become conscious of it. Much of this work and findings were in studies in Brain (114, 1991, 1731-57). Work by Feinstein, involving electrodes inserted in patients’ brains, also confirms the Libet’s work. Libet showed that consciousness takes this time because it involves the need to discard all the information our brain doesn’t need, which Norretranders calls ‘exformation’. As Norretranders comments, ‘It takes half a second for the most powerful computer in the world (the human brain) to reduce 11 million bits of sensation to 40 bits of consciousness, and erase the traces’. This is why ‘subliminal perception’ and ‘priming’ are so important in understanding human judgement and decision making. The influence of visual and verbal language on the unconscious is most powerful.

If one accepts the work of Libet, Feinstein, Norretranders, Bargh and Wegner (The Illusion of Conscious Will) then one thinks differently about how to influence others in the management of risk. Rather than focus entirely on the linear logico-mathematical mode of thinking, one gives far greater validity and influence to the priming, framing and pitching of influence to the unconscious through visual and verbal literacies. This is why the discussion of ‘One Brain and Three Minds’ was introduced in Risk Makes Sense.

To help remind you of this I have provided the Conscious/Unconscious Question Mark Tool (see Tool 2). This tool helps remind you that a range of unconscious considerations should be considered in the tackling of problems. The following should be considered when thinking about thinking:

The first consideration is that of personality and frames of mind: whilst some might like to dispute the idea of fixed personality types, there is ample practical evidence that we think differently from
those around us. Diagnostics and tools like Majors 16 PTI (and hundreds of others) help establish that we have an innately different way of thinking and orientation than those around us. There is very little sensemaking that is shared in common.

The second consideration is our culture and social environment: we all have been influenced by layers of culture and social environments, which shape who we are and inform how we make decisions. Schein introduces the idea of four layers of culture, namely Macrocultures (national, ethnic and religious in nature), Organisational cultures (private, public, not-for-profit and government organisations), Subcultures (occupational subgroups within organisations and cultures) and Microcultures (microsystems within or outside organisations). The power of social psychological influence is well demonstrated by Caldini, Festinger, Plous, Slovic, Zimbardo and many more.

The third consideration is perception and motivation: the psychology of perception is a most fascinating study. The neurobiological nature of receiving stimuli and information is conditioned by many factors, in biological ‘glitches’ in the human system and general ways in which humans are ‘hard wired’. Studies by Simons and Levin (The Invisible Gorilla) are most instructive.

The fourth consideration is our individual microrules: humans develop personal ‘microrules’ based on experience and culture over many years. If a process works well and is reliable to us, we tend to become quicker at doing it and develop ‘shortcuts’ in gain for efficiency. We tend to trust these microrules as being always true and sustainable until, under the influence of change and turbulence, such microrules fail. If something has worked well for 20 years, why should we doubt its effectiveness?

The fifth consideration is the many cognitive biases and social psychological effects that shape our decisions. Some of these have been explained in previous books such as attribution, availability, recency, sunk cost effect, anchoring and hindsight bias. There are literally hundreds of biases in the way each of us interprets our perceptions.

The sixth consideration is the unconscious heuristics that influence us: heuristics are like microrules but are highlighted here to emphasise the unconscious nature of their decision making power. Heuristics are experience-based techniques for problem-solving, learning and discovery. We sometimes refer to them as rules-of-thumb, common sense or educated guesses. More than principles for action, heuristics are strategies for action. Daniel Kahneman and Shane Frederick proposed that cognitive heuristics work by a process called attribute substitution, which happens without conscious awareness.

Finally, we use a range of deductive processes and cognitive abilities to reason logically about matters: the conscious mind decides what to think and do through a slow process of sifting through evidence, beliefs and values aligned to purpose. The deductive process is linear and ‘top down’, following rules of logic and sequential method. Cognition is thinking and denotes ‘thinking about’ rather than ‘thinking automatically or unconsciously’ about things. The school system is largely consumed with Maths and English, or numeracy and literacy. Using Gardner’s eight intelligences, the area of cognition most demanded by the school system is analysis, followed by testing and reflection. If one looks at the school timetable, the majority of time is devoted to two intelligences and modes of thinking, Gardner (The Unschooled Mind), Robinson (Out of Our Minds) and Neville (Educating Psyche) and others are highly critical of the school system for this reason. The creative mind and imagination hardly get a look-in in the school system after the early years. Using the ‘Conscious/Unconscious Question Mark’, one could be forgiven for thinking that all human decision-making was contained in the dot at the bottom in the education system. We call this ‘the dominance of the dot’. Whilst we may think this is how humans make decisions, in reality, the dot should hold its relational place. It is not really how we make decisions.
Visual Tools for Visual Learning

In an earlier chapter I referred to Craig Ashhurst, whom I first met in 1990 when he was a teaching student on educational field work, and later we taught together in the same school. Craig has an interesting background in visual technology, instructional design, learning, thought leadership and visual thinking. When I first met Craig he introduced me to visual thinking, which was a complete revelation for me. This included an introduction to Macintosh computing and a whole new way of thinking and thinking tools using a computer. As I write this book, Craig is working towards a PhD at the Australian National University, on wicked problems and boundary objects. Since 1990 I have learnt so much from Craig, and the whole world of visual literacy, iconic representation, colour, and spacial literacy has opened up not just new knowledge but a whole new way of learning and understanding the power of learning through the unconscious. Some of the visual learning tools I have created are shared in this chapter.

The Human Dimensions Question Mark Tool© is a tool to help remind me of how we really question and ‘tackle’ problems. When it comes to the engagement of risk and leadership in risk, the ‘dominance of the dot’ remains in force. The majority of tools used to assess and manage risk in industry are dominated by slow, inductive and deductive reasoning. This is the stuff of ‘Mind 1’ presented in Risk Makes Sense. If one is to really engage in risk with wisdom, a greater understanding must be made of ‘Minds 2 and 3’ where most decisions are made.

The nature of security, safety and risk is dominated by ‘checklist thinking’ and as risk aversion increases, this method of thinking simply increases. Unfortunately, the excesses of systems and bureaucracy create subcultural norms that ‘dumb down’ and ‘flood’ organisational cultures. This results in dangerous new cultural norms of ‘tick and flick’, scepticism, negativity, ‘doublespeak’, ‘engineer out the idiot’ and overconfidence (hubris), that drive subcultural norms in organisations.

Tool 2. The Conscious/Unconscious Question Mark Tool ©
The question mark tool reminds us that most of our decision making is unconscious and fast. We use heuristics, micro-rules, biases and effects to determine choice and judgement. If we keep this in mind when we think about strategy we will engage risk in a more realistic way and develop wisdom in the way we place confidence in systems and rational processes about risk.

**iThink Critical Thinking Clock Tool**

The third tool to be introduced in this discussion on visual tools for learning is the Human Dymensions iThink© Critical Thinking Clock (Tool 3). The Critical Thinking Clock is part of the Human Dymensions three-day program called iThink© Leadership and Learning in Risk. The Leadership and Learning in Risk Program develops skills in risk associated with concepts discussed in this and the previous books.

**Tool 3. Human Dymensions iThink Critical Thinking Clock Tool ©**

The Human Dymensions Critical Thinking Clock© is a systemic way of addressing the conscious and unconscious in critical thinking. The use of the tool helps develop critical thinking by considering issues in a sweep of the clock. The Critical Thinking Clock develops reflection in two ‘sweeps’ (conscious and unconscious) across 12 tasks.
The Rational Sweep does the following:

Task 1 - Step Back and Know Yourself:
The first step in any critical thinking process is to know oneself. A range of diagnostic and psychometric tools are helpful in this regard, the most popular being Jungian type indicators of DiSC.

Task 2 - Understand and Evaluate Your Purpose:
This is best done with a range of tools in short and long term goal setting. Human Dimensions has a range of tools that create various layers in such an exercise, particularly using the Workspace, Headspace, Groupspace Tool.

Task 3 - Interrogate the Information Source:
This is process of interrogating the source whether it be primary, secondary or tertiary source. The source also needs to be investigated for hidden assumptions, purpose, agenda, motives and philosophical perspectives.

Task 4 - Looking Above the Line:
Looking 'above the line' is about a quick surface look: What is obvious?

Task 5 - Looking Below the Line:
Looking 'below the line' is about: What is not so obvious?

Task 6 - Deconstruction and Socratic Questioning:
Deconstructing a topic, idea, event or activity is about breaking it into parts (chunking) and examining and thinking about each chunk of the issue, topic etc.

Task 7 - Review the Nature of the Evidence:
At this stage it is important to have a second look at the nature of evidence. How is evidence presented? Is the evidence reliable? Is the evidence layered, complex, primary, secondary, vested interests, power centred to whom, etc.

Task 8 - Imagination of Winners and Losers - Socio-Political Power:
Who is to gain socially and politically from this event, topic, idea, activity or concept?

Task 9 - Imagination of Trajectories, Consequences and Implications:
Where is this idea going? If the idea is taken to its logical end, where will it take you? What are the consequences for people, groups, society, communities and the environment?

Task 10 - Deconstruction by Other Disciplines:
This is about viewing the topic from the angle of different disciplines - sociology, psychology, anthropology, education, theology, spirituality, economics, ethics, politics, media, history, geography, engineering, construction, emotions, legal, and visual and spacial literacy.
Task 11 - Step Back Into the Subject - Know ‘the Other’:
At this stage one turns into ‘the other’, that is, that which is other than self. In considering ‘the other’ one needs to consider how ‘the other’ is not (or is) like me. This will be critical for effective communication and for establishing understanding.

Task 12 - Shaping Articulation, Response Strategies:
Now that all aspects of rational ideas and reflection have been taken, it is time to consider some of the less rational aspects of engaging and ‘tackling’ a subject.

The aRational Sweep does the following:

The aRational sweep is similar in some ways as the Rational sweep except its emphasis is on non-conscious and automatic actions and enactments.

Task 1- Step Back and Know Yourself:
The first step in any critical thinking process is to know oneself. A range of diagnostic and psychometric tools are helpful in this regard, the most popular being Jungian type indicators of DiSC.

Task 2 - Understand and Evaluate Your Purpose:
This is best done with a range of tools in short and long term goal setting. Human Dymensions has a range of tools that create various layers in such an exercise, particularly using the Workspace, Headspace, Groupspace Tool.

Task 3 - Interrogate the Information Source:
This is process of interrogating the source whether it be primary, secondary or tertiary source. The source also needs to be investigated for hidden assumptions, purpose, agenda, motives and philosophical perspectives.

Task 4 - Looking Above the Line:
When one looks ‘above the line’ one looks for what is obvious, what is the tip of the iceberg. In the arational search for meaning one should observe emotions and behaviours associated with the subject.

Task 5 - Looking Below the Line:
Looking below the line is about exploring ‘hidden’ aspects of a subject. This disposition asks ‘what can I not see?’ In this case often political, religious, ethical and values are hidden.

Task 6 - Deconstruction and Socratic Questioning:
Deconstructing arational aspects of the subject demands an awareness of the unconscious, heuristics, biases and beliefs that are common in human interactions, e.g: What part does superstition play in decisions made about this subject? Socratic questioning doesn't seek answers but seeks discourse, dialogue and understanding. The disposition to ‘solve’ and ‘tame’ subjects often disables the imagination, creativity and engagement with others.
Task 7 - Review the Nature of the Evidence:
A rational evidence is sought through research, in social psychology and neuropsychology. The following questions may be helpful. What are common beliefs and attitudes regarding this subject? How do people often make judgements and decisions about this subject?

Task 8 - Imagination of Effect in Socio-Political Power:
At this level of thinking one needs to consider the trajectory of ideas and imagine an end point: where does this idea take us? The distribution and shifting of power is critical in consideration of non-rational impact. What happens unconsciously and subconsciously to people when power is distributed?

Task 9 - Imagination of Trajectories, Consequences and Implications:
When one considers subconscious and unconscious direction, this is all about observation. Whilst one can't observe trajectories of ideas and thinking, nor predict consequences or implications, one can detect trends and speculate on and question the nature of human judgements and decision-making from research and observation. The importance of imagination in learning should not be underestimated. It is often too late when the horse has bolted with some ideas, and many people are left psychologically and socially injured because of shortsightedness.

Task 10 - Deconstruction by Other Disciplines:
This is about viewing the topic from the angle of different disciplines - sociology, psychology, anthropology, education, theology, spirituality, economics, ethics, politics, media, history, geography, engineering, construction, emotions, legal, visual and spacial literacy. This is considered from a non-rational focus, targeting subconscious and unconscious beliefs and patterns in such disciplines.

Task 11 - Step Back Into the Subject, Know ‘the Other’:
Knowing the ‘other’ can also mean tuning into the unconscious. Sometimes one needs another in order to do this. Sometimes the view of a trusted friend about oneself assists the reflection process.

Task 12 - Shaping Articulation, Response Strategies:
The final task is to be aware of the unconscious in articulation and communication.

Digital Risk Assessments and Tools

Much of what we do in risk management takes its focus on workspace. We call this the physical or ‘primary’ dimension of safety. This is easy to administer and regulate because what is required is visible and accountable through checklists matched to regulations. Most walks and observations are physical (primary) in focus. Walking around and observing what is physically out of place is relatively easy. Unfortunately, this seems to be the majority of what risk and safety professionals do. Every time people undertake observations they seem to concentrate on the same things they found last time. Without ownership, nothing changes.

Often observation walks take the form of the ‘nitpicky repetition cycle’. This cycle often takes the form of nagging and threatening others about personal protective equipment, dress, trip hazards, due dates, tags, tickets, barricades, traffic, exclusion zones, etc. Whilst these things are important, they are a small part of the risk equation. Unfortunately, people assume that because something looks safe, it
is safe. Similarly, assumptions are made that if something looks unsafe then it is unsafe. Looks can be deceiving.

One of the first things Human Dymensions do in Advanced Hazard Identification and PROACT training programs is help people expand their risk paradigm to think more in terms of Workspace, Headspace and Groupspace. I have written previously about primary, secondary and tertiary hazards and risks. The idea of Workspace, Headspace and Groupspace captures simply the fundamentals of the Social Psychology of Risk.

Understanding, observing and influencing workspace, headspace and groupspace is foundational to the Social Psychology of Risk. We can go on as many walks and observations as we like but if we only engage with the primary/physical dimension of risk we will never engage with psychological or cultural layers of risk.

How do we begin to practise a Social Psychology of Risk approach to observations and conversations? We must understand and learn to engage with workspace, headspace and groupspace, and the interactions between all three dimensions. We must know how to question and engage and influence the physical (primary), psychological (secondary) and cultural (tertiary) dimensions of risk.

Engaging others in workspace, headspace and groupspace takes training and practice. You need to know what you are looking and listening for, and how to extract knowledge in these dimensions through effective questioning. Unfortunately too many professionals think that the development of ownership in risk is spontaneously generated through telling, lecturing, correcting and policing. These work in the short term but they don't motivate others to ownership and they certainly make no difference over the long term. This is why the 'nitpicky repetition cycle' is one of the greatest frustrations for risk professionals. I often get frustrated when I read and see consultants offering nothing more to clients than proficiency in the 'nitpicky repetition cycle'.

There's not much need to elaborate about conversations and observations in workspace. We are already proficient in that, so let's discuss in a bit more detail the engagement and focus of headspace and groupspace.

Engaging with headspace is best undertaken through asking open questions and generating dialogue. When we engage with headspace we are listening for assumptions, micro-rules, heuristics, beliefs, rules of thumb, gut knowledge, values, biases, principles, language ‘anchors’, ‘double speak’, habits of mind, competing values, intuitions, emotional decisions, doubts, internal integration and psychological goals. We are looking for symbols, artifacts, blind spots, omissions, habits and evidence of learning priority. When we hear and see these things we can then respond to them and influence change in belief and values.

When we engage with groupspace we are listening for ‘effects’, interaction beliefs, relationships, trust, power discourse, stereotypes, distractions, interruptions, dissonance, heroes and enemies, power politics, exclusive language, shared meanings, ‘rules of the game’, ‘risk quackery’, situated learning, cognitive load, organic alignments and external adaption. We are looking for social validation, recognition patterns, stressors, punishment signs and attributions. When we hear and see these things we can then respond to them and influence organisational culture change.

To conduct observations and conversations in these dimensions with understanding is not something which comes naturally or automatically. Learning how to engage, listen and perceive these things takes learning and practice. Learning how to ‘prime’ and influence these dimensions is a journey many professionals are yet to commence.
Often as part of training in Human Dymensions we undertake a range of digital assessments (micro-training) and use a range of diagnostics in learning and development. The MiProfile tool that was introduced in *Risk Makes Sense* and *For the Love of Zero* is one such tool that assists in reflection on culture, organisation, risk and learning. Another tool that is used consistently across visual verbal and digital assessment is the Workspace, Headspace and Groupspace© tool. The following explains the use of this tool:

1. In the Human Dymensions PROACT and MiRISC programs we often send out participants to take digital images of and undertake micro (video) coaching. This is done to demonstrate the capability of the participant to think, engage and converse in workspace, headspace and groupspace. In this way participants are able to demonstrate their ability to see Primary (physical - workspace), Secondary (psychological - headspace) and Tertiary (cultural - groupspace) hazards and risks. The Workspace, Headspace and Groupspace tool is helpful for helping people think and engage beyond physical-only approaches to understanding humans, risk and learning. Primary, Secondary and Tertiary hazards and risks were first introduced in *Risk Makes Sense* as essentials in building leadership capability.

Tool 4. Workspace, Headspace and Groupspace Tool ©.

2. In the Safety Culture, Observations and Conversations Program, we use digital video to record encounters in conversation with others to demonstrate capability in structuring effective conversations. Sometimes we talk about written assessments, verbal assessments and visual assessments or Written, Verbal and Visual Safe Work Method Statements (SWMS). The Workspace, Headspace and Groupspace tool assists in the broadening of observation and conversation engagement.

3. The digital video method, called ‘micro-training’, used often in teaching and nursing training, is also used in the Human Dymensions ‘Your Talk Matters’ program to demonstrate ability to frame, pitch and prime messages in risk. The ‘Workspace, Headspace and Groupspace’ tool helps participants consider the ways in which discourse and language is framed and ‘primes’ the unconscious in conversations.

4. Digital images are also used in desktop assessments and in ‘storyboarding’ for Safe Work Method or Job Safety Analysis exercises. In industries with low levels of literacy and an
overburden of paper-based forms of assessment, this is a much more effective way of developing risk analysis and interventions. Storyboards should be used to replace text-based method statements because they are more effective at demonstrating in-situ behaviours and techniques. The ‘Workspace, Headspace and Groupspace’ tool itself is an iconic representation of these three spaces and endeavours to help people to think visually and spatially about these layers of risk and learning.

5. The MiProfile© Tool (Keypad Diagnostics) and methodology are also used for in-group surveying and shared brainstorming experiences. Results of the survey are often framed in ways that address Primary, Secondary and Tertiary hazards and risks in organisational culture.

**Risk Intelligence and Risk iCue©**

The final tool for discussion in this book is the Human Dymensions iCue© Card. This is a useful tool to help frame observations and conversations about risk. The iCue card helps participants think about what to listen and look for in any risk assessment.

**Tool 5. The Human Dymensions Risk iCue Card©**

**Front**

![Human Dymensions Risk iCue Card](human_dymensions.com.jsl)

The Human Dymensions Risk iCue Card © helps focus on the social psychological drivers of risk. The concepts on the card list the kinds of ‘cues’ that should be discussed in the management of risk. The concepts focus the attention of the observer and listener on the ‘red flags’ or ‘iCues’© that should be tackled in any conversation about risk and learning. One’s ability to consider these concepts are an effective measure of one’s ‘Risk iCue’.
On the reverse of the Human Dymensions iCue Card® are a range of prompts for memory iCue. These prompts are a helpful reminder of the kinds of things that should be remembered when engaging in observations and conversations about risk.

Questions are More Transforming than Answers

In Chapter 5 of this book we introduced the concept of ‘wicked problems’. Risk is one such problem. It is untractable and unsolvable because it is so necessary for human learning and maturity. The idea that the absolute of zero could be applied to risk is a nonsense. There is no learning without risk and no real living without learning. The eradication of risk, and risk aversion, is anti-human and anti-learning. The trajectory of zero is a life-destroying trajectory that seeks oppression and total control. The free will and choice of humans is anathema to the ideology of zero.

The quest to ‘control’ humans is a fundamentalist quest, as was discussed in For the Love of Zero. The quest for zero doesn’t want questions, it seeks certainty, control and answers. Zero doesn’t want to hear of wicked problems. For zero, all problems, including the problem of risk, are ‘solved’ by the absolute of zero. Zero doesn’t ‘tackle’ wicked problems, it is deluded in its perception that it solves and ‘tames’ wicked problems. This is of course false. The pathway to living and learning is not so much about the right answers, but about asking the good questions. If one has all the answers, where is the need for listening or learning? If one only seeks answers then there is no real engagement with others, but rather the quest to control, and satisfaction in perfectionism and the absolute. There is no conversation or openness in risk when the goal and ideology of zero commands space. In the ideology of zero there can be no listening, only blame, no learning, only control, and no conversation, only ‘telling’ and command.

Often when Human Dymensions conducts training in observation and conversation, we find that many people do not know how to observe, ask open questions and listen. The gods of Apollo and Prometheus dominate the organisational landscape. We need better skills in Psyche to help open
up dialogue, improve conversation and develop ownership and sense in risk. Many don’t know what to look and listen for in risk. Many have a low sense of risk intelligence, instead just having a broad search for hazards, and policing rules.

If one is seeking to build relationships, engage in risk conversations and focus on learning, then one needs good questions that promote dialogue and encourage conversations. Engagement, conversation and listening are transformative because they create learning and community. In community, one stands alongside others, but in zero one stands ‘over’ others. Absolute rule doesn’t need to listen or learn; it can only control and deny complexity and free will.

**Workshop Questions**

1. How do visual tools for learning enable conversation, discussion dialogue and learning?
2. How is the unconscious engaged in visual, iconic and symbolic thinking?
3. If the unconscious is so powerful in human decision making, why do does so much of schooling and training focus on text-based instruction?
4. Do you know of other visual tools for learning you can share with your group?
5. Practise a session of socratic questioning with someone, where the purpose is to seek not answers but dialogue and openness.

**Transition**

As we conclude this chapter on visual tools for thinking and learning, we are drawn into the importance of understanding how visual and spacial literacy engages in a ‘hidden’ way with the unconscious. In order to embark on the bold engagement of conversation in the social psychology of risk, one needs to ensure that there is a supporting community in which this takes place. The exploration of risk, learning and ownership is not helped by individualism and blaming. It is only in a community of trust that one can learn and develop wisdom in risk. This is the subject of the next and final chapter of the book.
The distinction between risk and danger does not refer to differences in certainty, but to difference in attribution - Japp and Kusche

But no matter what safety steps we take or what security precautions we adopt, our risk of death is not approximately - but exactly - 100 percent - Ben Carson

Introduction

The message of the three books in this series is that risk aversion is a non-learning trajectory. There is no learning without risk. Risk makes sense. Risk is not be feared - there is no need to stop living just because life is uncertain.

This chapter explores what is needed in order to embrace risk and learn wisdom. The focus on wisdom is important because wisdom is critical for discernment. Information, knowledge, data, intelligence and content in themselves do not make up wisdom. Much more than just being about knowledge, wisdom is about the ethical application of learning and knowledge to the well-being of others. The development of wisdom in risk requires the support of an understanding community. One cannot learn about community, but one learns in community. Graham Long (2013, p. 66) comments:

Nobody wants to be given the gift of frailty, but it can be a fun gift when it opens the door to connection and community, and the possibility of security. Perfectionism, on the other hand, shuts down any possibility of connection and community. In all its many forms perfectionism is just another kind of addiction and, like all addictions, much is promised but little is delivered.

Graham Long shows us in Love Over Hate (2013) how community builds wisdom and love. It has been in the Wayside Chapel, Kings Cross in Sydney that Graham has demonstrated the vitality of community and the deprivation of perfectionism and individualism. He comments:

At The Wayside, we tell people they are not ‘problems’ to be solved but rather ‘people’ to be met. We know we have had a good day if someone walks out of our front door feeling ‘met’ rather than ‘worked on’.
This is the essence of community, the creation of a place where humanity is not denied but enlivened to learning and the development of wisdom. It is in community that risk makes sense and human learning is embraced.

**Communities-of-Practice and the Practice of Community**

In the second book *For the Love of Zero*, the foreword was written by Graham Long and he said:

> There is no such thing as a single human being. The minimum number in the fundamental human unit is two. At the core of what it means to be human is connection. So the word ‘I’ is the shortest and yet the most misleading word in the English language. This word more than all others is in need of review. The word ‘I’ could at best, only ever refer to half of something.

> In a culture that has privatised everything, most especially the self, we nod to the idea of community. We think that familiarity with a word is the same thing or similar to understanding the word. Alas the word mostly denotes a gathering of individuals, half units.

> ... Imagine the joy that could come if our goal was to ‘meet’ people rather than to fix them. Imagine the burden that would be lifted from consumers as well as dispensers of ‘helping services’. In order for the ‘client’ to cease to become a thing, the expert must also be willing to cease to become a thing. Imagine if we could admit that human frailty was shared on both sides of the professional table. We so need to discover that no matter how good the heart is that seeks to fix its fellow human being, there is a push away in the act of helping.

Several scholars have been helpful in sharpening the meaning of community. In the 1920’s Ferdinand Tonnies (1925) used the German words Gemeinschaft (community) and Gesellschaft (society) to help discern the difference between community and society. The word Gemeinschaft, translated as ‘community’, is used to define an ‘ideal type’, or model, society where social bonds are personal and direct and there are strong shared values and beliefs. Gemeinschaft is characteristic of small scale, localised societies in contrast to Gesellschaft which refers to complex, impersonal societies. Gesellschaft is a form of social integration based on impersonal ties; more an association than a community as in Gemeinschaft. Gemeinschaft describes binding, primary interactional relationships based on a personal sense of attachment and belonging, while Gesellschaft describes an interactional system characterised by self-interest, competition, and negotiated accommodation. In Gesellschaft relationships are contracted on the basis of rationality and social contract. In Gesellschaft one is not subject to the scrutiny of the group; individuals are subordinated to abstract authorities and impersonal institutions, where regulations control relationships. In Germeinschaft there is no need for regulation; people are drawn together in belonging, trust and mutual interdependence.

Community offers people the promise of belonging and brings people together in acknowledgement of interdependence. In our increasingly individualistic world people are yearning for more community. Despite all the activity on social media and increased modes of communication, our society continues to be hopelessly individualistic with record levels of mental health issues, anxiety, depression and suicide (http://www.blackdoginstitute.org.au/newsmedia/newsdesk/ cited 26 July 2013). Suicide is now one of the three leading causes of deaths among males and females aged 15–44 years (Western Australian Suicide Prevention Strategy 2009 – 2013). The two main causes of suicide are relationship breakdown and psychiatric disorder.
The idea of community becomes tangible when we grasp the importance of discourse, language, communication and conversation. A community tends to be characterised by restorative conversation (possibilities, imagination, creativity and learning) whereas associations and societies tend to be characterised by retributive communications (problems to be solved). Block (2009) comments that restorative conversations should be where:

- an intimate and authentic relatedness is experienced
- the world is shifted through invitation rather than mandate
- the focus is on communal possibility
- there is a shift in ownership of this place, even though others are in charge
- diversity of thinking and dissent are given space
- commitments are made without barter, and
- the gifts of each person and our community are acknowledged and valued.

Setting goals and achieving goals requires a social context, because humans are fundamentally social beings. Martin Buber (1925) argued that the primary word ‘I-thou’ points to a relation of person to person, of subject to subject, a relationship of reciprocity involving meeting and encounter, while the primary word ‘I-It’ points to a relation of person to thing, of subject to object, involving utilisation, domination and control. Goal setting that fixates on objects fails to engage or motivate subjects. People want to have meaning and purpose in what they do and are not machines, neither are they motivated by mechanistic approaches to goal setting.

Buber argues that it is only through the ‘Thou’ that a human becomes an ‘I’. What this means is that human identity is only meaningful when in dialogue with others. Authentic human community is a ‘dialogic life’, in that it exists in the meeting between persons. As Buber says, ‘All real living is meeting’ (Buber, 1958, p.34). Buber shows how the need to control and fix ‘things’ or ‘thingification’ tends to ‘use’ others rather than ‘meet’ others. When one sets targets that focus on calculative things, then depersonalising and dehumanising dynamics flow. In the I-It relationship others must be subordinate. The I-It relationship is about using others and prioritising ‘things’ so it looks like relationship but is really ‘usership’. Usership is anti-learning, dehumanising and risk averse.

In Buber’s sense of community he rejects atomistic individualism and totalitarian collectivism. One can be in a crowd and still not ‘meet’ anyone. One can have a thousand friends on Facebook and still not engage with anyone or be truly ‘known’ by anyone. Community knowing is ‘To Know as we are Known’ (Parker J. Palmer). There can be no real community when the principle focus is on ‘things’, fixing ‘things’ and calculating ‘things’. This is the problem with zero, it primes a population to be calculative. As Buber comments, ‘when a primary word is spoken the speaker enters the word and takes his stand in it’ (p. 20). The primary word ‘I-Thou’ is the meaning of community, and the primary word ‘I-It’ is the meaning for society. Community is defined by the special quality of relationships which are formed in it. The ingredients for growth in community are discovered in the dynamic of mutual acceptance, responsibility for each other implied by that acceptance, interdependence, participation and identity through involvement.

The key to discerning risk is the management of risk communication and collaboration (Standards Australia HB 327:2010 Communicating and Consulting About Risk). The place where community is best played out in organisations in the engagement with risk is the committee and in supervision. For organisations that humanise employees and seek community I-Thou meeting, risk makes sense and the discernment of risk is relational. For organisations that dehumanise employees and seek the I-It of usership, there is no real meeting nor relation, only problem solving, counting things and regulation.
The human person is in a broad sense a reflective and a valuing being, and this reflection occurs within a social context. The old notion of a person as just a ‘rational being’ is too narrow. The idea of the ‘rational being’ tends to connote the Greek or Enlightenment role of reason with its incessant demand for logically certain and controllable knowledge. But ‘reflection’ includes various sorts of mental activity with reference to myself, my relationships amid my responsibilities. It may include belief and values as well as knowledge, passionate involvement as well as detached inquiry, practical concerns as well as theoretical concerns. Creativity and imagination are also present in the things we sense but do not yet ‘know’. The curious assumption that things non-rational must be irrational is not justified in community, where we connect and ‘meet’ others. Community is person-centric whereas usership is about ‘things’, products and regulation. Personhood thrives in community whereas usership dehumanises the other.

Andersen notes six major characteristics that help define personhood:

1. Rationality
2. Self-awareness; being able to meaningfully entertain the notion of ‘I’
3. Feelings
4. Agency; the framing of intentions amid plans, particularly moral agency
5. Relationships; persons are personal, that is they relate to other persons. If such relationships are not capable of being formed we would call it nonpersonal interaction, but not ‘meeting’
6. Identity, i.e. some consistency within the person. (This does not exclude the possibility of change or development.)

The best place to exercise community in the engagement of risk in large organisations is in small groups, committees, supervision relationships and in teams. Unfortunately, many small groups and committees designed to ‘meet’ and dialogue about risk neither really ‘meet’ not engage in dialogue. Often the pattern of getting together is about ‘telling, ‘counting’ or ‘things’. This is exacerbated by the ideology of zero and calculative systems that dominate organisations. Sometimes, one gets into committees and small groups to discern risk by default. Often committees are perceived to be a ‘waste of time’ or a low priority, and as something that are regulated but ineffective. In some industries, committees designed to ‘meet’ and ‘dialogue’ about risk are perceived as such a low priority that the most dysfunctional people are sent as representatives rather the best people, for example sending a worker who is on leave or injured. Unless people in the business of risk rediscover the dynamics of community-in-work and establish communities of practice learning in risk will be weak and risk aversion will reign supreme.

Communities of Practice (CoP)

The idea of communities of practice (CoP) is not a new idea but denotes a group of people who seek learning through the dynamic of community. Jean Lave and Etienne Wenger coined the phrase in their 1991 book *Situated Learning* (1991). Wenger (1998) later published a specific work on the concept. A community of practice is a group who share a common interest consisting of three interrelated activities: ‘mutual engagement’, ‘joint enterprise’ and ‘shared repertoire’ (Wenger 1998, pp. 72–73). One of the consistent themes in each book in this series has been the priority of learning. Learning is central to human identity and that identity is that of a social being, made fully human in the ‘I-Thou’ of Gemeinschaft.

Wikipedia helps clarify the distinction between a community of practice and project teams or communities of interest (CoI) (http://en.wikipedia.org/wiki/Community_of_practice, accessed 1 August, 2013):
A project team differs from a community of practice in several significant ways (McDermott, 1999).

- A project team is driven by deliverables with shared goals, milestones and results.
- A project team meets to share and exchange information and experiences just as the community of practice does, but team membership is defined by task.
- A project team typically has designated members who remain consistent in their roles during the project.
- A project team is dissolved once its mission is accomplished.

By contrast,

- A community of practice is often organically created, with as many objectives as members of that community.
- Community membership is defined by the knowledge of the members. CoP membership changes and members may take on new roles within the community as interests and needs arise.
- A community of practice can exist as long as the members believe they have something to contribute to it, or gain from it.

Community of Interest:

- A group of people interested in sharing information and discussing a particular topic that interests them.
- Members are not necessarily experts or practitioners of the topic around which the CoI has formed.
- The purpose of the CoI is to provide a place where people who share a common interest can go and exchange information, ask questions, and express their opinions about the topic.
- Membership in a CoI is not dependent upon expertise – one only needs to be interested in the subject.

Community of Practice:

- A CoP, in contrast, is a group of people who are active practitioners.
- CoP participation is not appropriate for non-practitioners.
- The purpose of a CoP, as discussed above, is to provide a way for practitioners to share tips and best practices, ask questions of their colleagues, and provide support for each other.
- Membership is dependent on expertise – one should have at least some recent experience performing in the role or subject area of the CoP.
- Example: Someone who is interested in photography and has some background/training in it finds an online CoP for working photojournalists, who use it to discuss various aspects of their work. Since this community is focused on working photojournalists, it would not be appropriate for an amateur photographer to contribute to the CoP discussions there. Depending on the CoPs structure non-CoP members may have access to reading the discussions and accessing other materials of the community.
Borys (2005) introduces the idea that learning through a community of practice is ‘a social process of forming’ and identity more than a cognitive process of transferring knowledge. Too often the risk and safety industries concentrate on knowledge content in the Act and Regulation, rather than understanding the ‘spirit’ and dynamic of the human dimensions of risk. The static transference of content about risk and safety is not learning, but this is often the approach in vocational training. Content training is fundamentally disconnected from the dynamic of community. A community of practice is focused on its own situated learning and views social and psychological learning as synonymous with risk maturity.

Mumma’s Fish and Chip Shop and Pinball

When we were kids, and before modern electronic games, the game of choice was pinball. There were no pinball parlors back then, just a fish and chip shop in the main street of Epping with two pinball machines, the only ones in our suburb. Mumma’s was on the way home on the downside of the railway station, and there was always a group of kids there ‘hanging about’. This was no ‘gang’, there was no ‘crowd’, but rather a small group of high school kids being together with the pinball machine as the centre of attraction. This was before MacDonalds, pizza, KFC and Subway. Just a small corner store where chips and scallops were cheap. Back then (1966) a good bag of chips was 10 cents (or a shilling before the 14th of February of that year).

When young people hang about, adults seem to worry, the assumption being that ‘they are up to no good’. This was the time of the Rolling Stones, the Beatles and long hair, an identity of rebellion against parental expectations and norms. My memory of those times is that we hung about for fun. There were no drugs and we did nothing illegal, just ate chips and enjoyed each other’s company. We would compete at pinball and talk about sport, crackers, music, cars, school and girls, and plan adventures in drains.

At that time Epping Boys High School was a large boys-only school and the routine of the afternoon was to meet and talk to girls at the railway station before going home. The boys would travel by bus to the Epping Station terminus and the girls would travel from Cheltenham Girls High School (the next suburb) and we would all mingle at the station. It was a flood of hundreds of teenagers in grey, yellow and green (boys) and pink (girls). It was here that we learnt how to talk to girls and swapped school badges with our girlfriends. In my case it was Susan, my first girlfriend, who was also a girlfriend at church.

Between church and school and Mumma’s, we had a neat little community of friends, mates and girlfriends. We didn’t gather intentionally for learning, but that’s what was happening - we were a community-of-practice. There were less than a dozen kids in our circle of friends and we shared common bonds through church, clubs, school, sport, music and adventures.

Small is Risky

When organisations are consumed by efficiency in ‘things’ then people become products and statistics to boast or worry about. Organisations need to think qualitatively not quantitatively, if they are to engage in risk through community. The concept of efficiency in society has become quite narrow and exclusive: it relates only to the material side of things and only to profit. It certainly does not relate to people, the actual persons involved in the process of production. However, the validity of an ideal, goal, objective depends on its inherent truth and what it does to people, not on the calculations of statistics. Schumarker notes six essentials if the dynamic of community is to be part of organisations:
1. Mutual relationships at all levels
2. People-centric
3. Charismatic involvement and participation
4. Community solidarity
5. Dialogue and examination of culture and prevailing values
6. Learning in and by community relationships resulting in ownership and ethical change.

The risk and safety community struggles in a world of dehumanising forces, many of which have been allowed to enter organisations and management ideologies. To strive for smallness means to bring organisation and the mentality of production back to a human scale.

Leadership and management preoccupation with efficiency has simply assisted in making the person as ‘client’ more of a product. Somehow ‘more’ has come to mean ‘better’. The concept of efficiency in itself has been narrowly defined, relating only to the material side of ‘things’, usually profit. The language of efficiency is rarely used with relationship to people.

The system of organising as we know it needs to be re-set for the priority of the following ideas:

1. Community mindedness
2. Mutuality/participation/solidarity
3. Values/trust/maturity
4. Humility/openness
5. Authority not authoritarianism
6. Non-hierarchical pluralism / functioning on gifts in the framework of a team
7. Education not indoctrination
8. Leadership from the base
9. Freedom/enabling others to be free
10. Respect/vulnerability

Robert Banks notes:

Beyond a certain size, it becomes impossible to establish genuine relationships with, and take unlimited liability for, one another. Beyond a certain size, things become too formal for us to show certain sides of our personality and to share many of our everyday concerns. Beyond a certain size, meetings become too regulated ... for the desperately needy to break in on our consciousness in any radical way, and too dominated by a few who allow everyone to play a part in determining the community’s affairs.

If we are interested in educative practice we must resist opportunities for hiding. It is a curious phenomenon that the person who hides in whatever context, hides from their greatest need of belonging and acceptance. The emphasis on giantism assists hiding and egoism. The Promethean and
Apollonian leader more than others is tempted to hide in the office or role itself under the guise of the ‘knocks of responsibility’ (the downside of responsibility) and authority.

My point is that size is not the only factor in the leadership and management debate but that it must be reconsidered. If learning is to be priority for those in the risk industry, then community and communities of practice must become a priority in organisations and the discerning of risk.

**Risk Beads and Embracing Risk**

The other day in Sydney I caught a taxi and had a great chat with the driver as we drove the back streets from the city to Strathfield. Many of these narrow suburban roads built in the 1930s and 1940s were never intended to carry the kind of load they carry today. As the driver weaved in and out of the traffic on the bumpy concrete roads, he had both hands on the wheel, and I noticed a set of beads around his wrist. When we stopped at the lights he would wind the beads off his wrist and feed them through his fingers, counting one by one. Although there was no cross attached to the beads I presumed for most of the trip that they were Rosary beads and that he was a Roman Catholic. As he fingered through the beads at the lights I figured he was saying the Rosary in his mind.

The Rosary is a set of thoughts and prayers used to remember the mysteries and principal events of salvation. There are a range of various and diverse ways a Catholic can pray the Rosary, but this set comprised only about fifty beads, where normally a Rosary has three times that number and has a cross attached. So I became more curious as we travelled and I watched the driver run through his process at each set of lights and other lengthy stops in the congestion. You can imagine just how much he must fiddle with these beads driving in Sydney, where most of the freeways are parking lots.

As I watched him I became more curious. Whilst not a Catholic, my theology told me his routine didn’t make sense. After about 20 minutes, unable to resist I asked the driver if he was a Catholic, to which he replied, no, he was actually a Muslim. I asked about the beads and he told me they were his concentration beads. He had had a serious accident in the past and since going back on the road he used the beads to concentrate and also to release some of his edginess, aggression and impatience. He had his own set of meditations and things he thought about as each bead passed through his fingers, methods he had developed himself. He said they wouldn’t mean much to anyone else but they meant something to him, things he needed to remember.

It made me think: I know some people in the management of risk who need such a set of beads; let’s call them risk beads. I’m not suggesting we should all carry these beads on the job, but maybe we could use them on the way to work to help us meditate on some risk iCues, for example:

- There is no reward for rushing
- Observe your mates and have conversations about risk
- My priority is my family and friends who I want to see tonight
- If I come back for defects I’m doing the job twice
- Shortcuts are risky
- Don’t do high-risk work alone

You get the gist. A good idea from a Sydney taxi driver, and worth thinking about.
Embracing Risk with Intelligence and Wisdom

Sometimes we talk about intuition and making an ‘educated guess’ or a ‘guesstimate’ of something. This is where risk intelligence comes in. The ability to imagine possibilities, the likelihood of those possibilities and the probability of those possibilities is what adventurers learn by taking ‘calculated’ risks. Risk intelligence is also associated with the idea of intuition, that is, ‘unconscious knowledge of how to act based on experience’.

The opposite of risk intelligence is risk ignorance. One is most likely to become risk ignorant through risk aversion. The quest for risk aversion is a ‘dumb down’ and anti-learning approach to risk management. The myths of ‘engineer out the idiot’ and ‘common sense’ simply help to perpetuate the development of a workforce that can only ‘think’ about risk with an expert around or checklist in their hand. The continued bureaucratisation of safety and ‘molly coddling’ approach to the management of risk in the workplace diminishes the development of risk intelligence and safety ownership.

The development of subcultures of ‘tick and flick’, ‘smile and wave’, scepticism and cynicism illustrate how non-learning and non-community subcultures erode the possibility of developing risk ownership.

There are a range of practical activities and dispositions that assist the development of risk intelligence, but none more so than taking risks. However, one needs wisdom to discern risk and the engagement in risk. Wisdom develops as one engages with risk in a supportive community. Without a supporting community risks are often taken in disconnectedness with reality and most often confirm individualistic notions of risk and control. The idea of sitting at a computer or table by oneself and ticking a whole set of boxes as if such is a risk assessment doesn't make sense.

Responding to Confirmation Bias

The process of conversion is a complex activity, both to understand and to harness. I recently met a friend I had not seen for 6 or 7 years. The last time we met, he was in trouble with the law, had a drug dependency, couldn't hold down a job, told lies and couldn't be trusted. This time when I met him he was evangelising for fundamentalist Christianity. What a change, what a conversion! How did this happen? Whilst I am not a great sympathiser with fundamentalism, in this case I will make an exception. This conversion has cleaned up the guy, and he is doing well. Strangely, it would be as hard now to convert him out of fundamentalism as it was perhaps to get him into it; but there is a Tipping Point.

We all need to maintain some confidence in what we believe. We tend to be attracted to views and evidence which support and sustain our own view; this is where we feel most comfortable. People normally do not enjoy dissonance and prefer certainty to doubt. The trouble is that this bias toward confirmation (confirmation bias) closes people off from change, learning and options. It is what causes so many disasters; at critical times people don't entertain doubt, they don't invite dissonant views, they tend to surround themselves with ‘yes’ people, and it's hard to walk away from deeply committed beliefs. This is why it is so hard to convert anyone to anything. It does happen, but there is no simple formula. Try converting a Jehovah’s Witness or a cult member. Good luck.

What can we do about confirmation bias? If someone is convinced there is no risk, and is attracted to evidence that supports that view, then it's extremely difficult to sway their view. The key to ensuring that your leadership and culture are not captivated by confirmation bias you need to have a few essentials in place:
1. You need a supportive CoP that can challenge you and question and debate in an open climate of acceptance and belonging.

2. You need to always entertain multiple options; there is never just one way

3. You need to entertain doubt and invite mavericks into the leadership team who contribute disconcerting questions into the mix. Agreement in leadership is rarely a good thing

4. You need to engage contrary analysis

5. Don’t accept the advice of experts without challenge

6. Promote a learning organisational culture where mistakes/risks are not severely punished.

Doing these things is often hard for leaders and especially managers. They want a smooth process, they don’t want to stop and entertain doubt about their judgements. Unfortunately such leaders and managers want the right decision, not the right process. Conformity is attractive but in itself is not a guarantee of a good decision.

**Powerful Drivers of Human Behaviour**

People are often are surprised how others seem to do things which they think are illogical. The idea of self-preservation seems so logical to many of us: surely in a moment of uncertainty someone would take precautions rather than increase risk? The problem with this view is the assumption that behaviour and logic or rationality are connected. This is why we tend to label someone an ‘idiot’ for undertaking behaviour we don’t understand. The trouble is that people make all kinds of decisions and many are not connected to rational logic or thoughtful cognition; other factors are much more powerful. Take for example the importance of status and belonging.

Status and belonging are not only important to us emotionally but also to our brain. Reduced status when in a group or desiring acceptance can have a powerful effect on people. At the extreme, if our status or sense of belonging is reduced significantly, our very survival can be in question. Nothing is more distressing than being expelled or rejected from a group. Being treated as if one does not exist is much worse than even being hated. At least if I am despised I receive some energy from my detractors.

Indifference and rejections are very powerful drivers of behaviour. Threats of rejection trigger a flood of cortisol to the amygdala in the brain, in preparation for a highjack. It inhibits thoughtful processing and a range of new psychological factors take over. Stress changes behaviour and is not always related to overwork; dealing with ambiguity or managing rejection is just as stressful.

An interesting experiment was conducted in 2003 and published in the journal *Science*. People were put in a lab and asked to play a computer game called *Cyberball*, an on-screen version of catch and throw. All computers and people were linked, each with a character and required to throw the ball to each other. After a while the computers were programmed to isolate a person and not pass to them, only throwing the ball to the others in the group. The rejected person did not know that the computers were programmed to create social rejection and despite the fact that this was only a computer game the results were astounding. Using functional magnetic resonance imaging (fMRI), researchers found that this experience of social rejection, even on the scale of low level rejection, activated an area of the brain that lights up in response to physical pain: the anterior cingulate cortex. This showed that there is a very strong link between social rejection and physical pain.
This explains just how powerful acceptance and belonging are to people. It is why people go to such lengths to avoid or win an argument. It is why people in groups acknowledge a behaviour that privately they would consider immoral.

In an earlier chapter we discussed the abuse of prisoners by American soldiers in Abu Ghraib prison in 2004. This abuse included physical, psychological, and sexual abuse, torture, rape, sodomy, and homicide. Between May 2004 and March 2006, eleven soldiers were convicted of these crimes and were courtmartialed, sentenced to military prison, and dishonorably discharged from service. Two soldiers, Specialist Charles Graner, and his former fiancée, Specialist Lynndie England, were sentenced to ten years and three years respectively, in trials ending on January 14, 2005 and September 26, 2005. The commanding officer of all Iraq detention facilities, Brigadier General Janis Karpinski, was reprimanded for dereliction of duty and then demoted to the rank of Colonel on May 5, 2005. The graphic photos were plastered over the Internet and newspapers all over the world. How can such behaviour be explained?

I have previously discussed the famous Milgram experiments and there are also the well known Zimbardo (Stanford) experiments (Experiments with People: Abelson, Fry and Gregg). These show that, given the right social pressure and need for conformity, we are all capable of such behaviour. This research and that of others (Adorno, Levinson and Brunswisk on the treatment of Jews in WW2) show that status and belonging are critical drivers of human behaviour and easily override ethical, moral and rational drivers of behaviour when the circumstances are right.

When it comes to the assessment of risk we need to be aware of the dynamic of status and belonging in our considerations, particularly in group discussions and meetings. When it comes to risk, small conversations between workers carry less pressure to conform and greater capacity for honest reflection about risk.

Automaticity as the Flip Side of Capability

Automaticity is one of the most essential capabilities of humans. It is a fundamental indicator of learning. To do something on ‘automatic’ is to do it without thinking. For example, having moved to a new city or area and getting lost, you grab a map, ask for directions or use a GPS. Once you become familiar with the area you need none of those things. Indeed, you navigate your way about and think you can multi-task, looking for shops or a parking spot because you have developed some heuristics to manage doing so ‘without thinking’.

Can you remember how excited you were when you first learned to drive a car or motorbike? I certainly can. In South Australia in 1969 I was able to go for my learner’s permit at 15 years and 9 months, and had my full licence at 16 years of age. My friends in other states had to wait till they were 17 years of age before they could get their licence and then even had to wear a ‘P’ plate on their car for a year. One of my friends at the time in South Australia, a little older than I, got his licence by postal application form.

I remember the excitement fused with enthusiasm and energy when I first was learning to drive. I also remember that it took years for this energy to transfer to competence. The trouble was that I thought I was a pretty good driver at 17, when in fact I had much more to learn. I often attributed luck to skill. It was at this time, however, that I had to really think and concentrate on my driving. I had not yet developed the many automatic habits of driving. Once I had been driving for some time in various conditions (night driving, country driving, dirt road driving, driving various vehicles, driving trucks and buses) then I finally moved into
driving on automatic. Now after 43 years of driving, driving is a chore. I prefer someone else doing the driving.

Understanding automaticity, complacency, desensitisation and learning are critical if we wish to influence the way others embrace risk.

When it comes to risk, competence, automaticity, desensitization and complacency we simply do not know what space others are in. Unless there is a conversation and some relationship (or we are mind readers), we can rarely predict what people will do in automatic. We cannot assume that we can know what state another person is in because we all tend to over-estimate our own competence in most things. So when someone tells us they are competent, their own assessment may not be reliable. This also means that someone who has been doing something for a long time may not actually be competent but may have moved through automaticity into complacency. The idea that the most experienced and longest serving staff member is the least risk averse and safest for the job is not always true.

All of this is important to remember in the conversations we have with others about risk. Sometimes the least experienced is the most alert. Sometimes the most competent on automatic is so much ‘in the flow’ that their perception is impaired and they don’t perceive any change within the flow, and they are less likely to detect change and turbulence. Sometimes the most experienced lose their capability to think critically because of habits that enable them to undertake tasks without thinking. There are no rules when it comes to human behaviour, and such things are not picked up in a checklist.

Have you ever had the experience of driving home and pulling up in the driveway, and it suddenly dawns upon you - you can’t remember a single aspect of the trip you have just undertaken. You haven’t been drinking, you were not particularly fatigued, but you realise you just drove home in an automatic daze, and yet you arrived home safely.

This is the feeling of automaticity, the unconscious control of the conscious mind and will. There is much research coming to light from neuropsychology and neuroscience on the dynamics of automaticity. Bargh’s work is the most comprehensive in understanding automaticity, but Wegner’s work is also helpful.

**Conclusion**

The development of discerning risk requires learning and engagement with risk. To develop wisdom in risk one needs the environment of a supportive learning community. A community-of-practice provides the place where human fallibility is neither denied nor policed, but rather, ownership is valued and learning is prioritised.

This book has explored what happens when people lack the ability to discern the value and nature of risk. The outcome of poor discerning in risk, is injury of people, organisations and relationships. This book has explored what makes risk valuable and attractive. Rather than deny the attractiveness of risk and the value of learning, the book has demonstrated that risk can be embraced when learning is encompassed within a supportive community. It is here where wisdom develops, where acceptance and ‘meeting’ enable growth and ownership, rather than the fear and blame common in individualistic structures of tackling risk.

The importance of being connected to others is what Buber called the I-Thou of ‘meeting’. In the worldview of risk aversion, others are to be controlled and saved from themselves because risk is
black-and-white, simple and common sense. Such a worldview denies fallibility and thrives on the delusion of zero. There is no learning in the absolutism, superiority and perfectionism of zero, no community, forgiveness, learning, grace or wisdom.

If one is truly to make sense of risk, one must embrace risk with intelligence, wisdom and discernment within the structure of a supportive community.

The creation of a community of practice, the encouragement of learning and the development of wisdom in risk requires risk intelligence and structured experiences. The creation of this space is the purpose of the fourth book in this series *Tackling Risk, A Field Guide to Embracing Risk*.

**Workshop Questions**

1. Document a time in your life when you experienced a time of accelerated learning. Was there a community of support that assisted this learning?

2. How does one create ‘community’? How does one create a ‘community of practice’?

3. What are the essential values required in community to develop wisdom and learning?

4. When you fail, where is your support?

5. Can you have conversations about risk, learning and fallibility without worry of blame and recrimination?
The Train and the Journey

The steam pours from the engine, and disappears as air
The station master waves his flag, blows his whistle, and gives a stare.
‘Are you getting on board?’ he calls,
‘I’m off to Newcastle sir’.
‘Then watch the step and take a seat,
the engine whistle whirrs.
‘Hold your ticket’ says the man in blue,
and don’t scratch the seats.
The leather and the shiny wood,
Shutter windows and studded cleats.
And so, it rattles off through Strathfield and Hornsby,
the mountain curves and bridge across the Hawkesbury.
My mind on cousins, days of fun,
excitement, play and risk, had just begun.
It’s in my mind, constructing play,
up to mischief and games each day.
So the train takes the journey, no system to be seen
and one small life, for the ride and a dream.
All trust in others, communities of others, yet this loose connection.
The stories and adventures, a life for living, and
memories created by connection and meeting.
Whilst the approach of this book has endeavoured to avoid academic referencing in the discussion, there is nonetheless a deep and comprehensive research base to this work. The following reading list is for those who may want to use this book as a workshop resource. The list can be used in conjunction with the workshop questions at the end of each chapter.

The reading list may also help more academically focused people with their research or it may help substantiate some of the claims made in this book.


Macklin, M., (1976) *When Schools are Gone*. UQP, St Lucia.


Palmer, P., (1983) *To Know as we are Known.* Harper, SanFrancisco.


Further Directions

This may be the end of this book but it need not be the end of the conversation in making sense of risk. There is much more to think about and discuss on the Human Dymensions blog, the link for which can be found on the Human Dymensions website - www.humandymensions.com. or email: admin@humandymensions.com

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Rob is engaged by organisations because of his expertise in culture, learning, risk and social psychology. He is a skilled presenter and designer of learning events, training and curriculum.
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Previous Books in the Series
Risk is about what is uncertain. Humans don't know the future and so the challenge for humans is to discern risk with wisdom in order to live. Real Risk, Human Discerning and Risk is Dr Long's third book in the series on risk. This book is about the attribution of risk, the realities of risk, disconnectedness from risk and the wisdom of engagement with risk. Whilst there is much written about regulation and the assessment of risk, there is precious little discussion about discerning risk. Whilst so many advocate the aversion of risk as an intelligent course of action, the reverse side of this decision advocates non-learning and the 'dumbing down' of the risk intelligence of the population.

The idea that risk can be assessed objectively ignores human subjective participation in risk. Risk is a social activity and is not independent of human bias and social arrangements. It is because risk is social and subjective that embracing risk requires social discerning and wisdom, these come through viewing risk within a community context. The more we try to regulate risk without regard to community, ethics and learning, the more we get into hot water. Two stories illustrate the problem.

In 2012 the UK HSE launched an independent panel called 'the Myth Busters Challenge Panel' (Myth Squad). One month after the establishment of the Myth Squad the media and politicians were calling for the squad to be disbanded. The problem is simply this: tackling cultural problems with bureaucratic solutions perpetuates more complex problems. This kind of thinking sees every problem as a nail and, the only solution as a hammer. In one of the first cases referred to the Myth Squad was a request for a determination whether firemen should venture in to a pond to rescue a trapped seagull. The Myth Squad reply was that it would take 5 days to deliberate on the case and provide a ruling.

In November 2013 the ACT Government in Australia introduced the idea of regulating fundraising activities by requiring ‘food safety supervisors’ (http://www.canberratimes.com.au/act-news/forking-out-cash-to-supervise-kids-bbqs-dont-be-a-silly-sausage-20131104-2ww10.html). Volunteers would be required to pay $150 to be trained as a food safety advisor. Fortunately, after much community outrage the idea was dropped. Unfortunately the regulators continue to entrench the idea that risk is to be feared and only trained experts can discern and manage risk.

The fundamental proposition of this book is that people are more disconnected from risk than ever before. The best way to become educated and discerning in risk is to embrace it. Risk aversion drives risk ignorance, risk engagement drives risk intelligence and, because of this continuing risk disconnectedness people have become less discerning about risk. The problem with this trend is that it is also matched by a decline in creativity, ingenuity, adventure, learning, imagination and innovation.