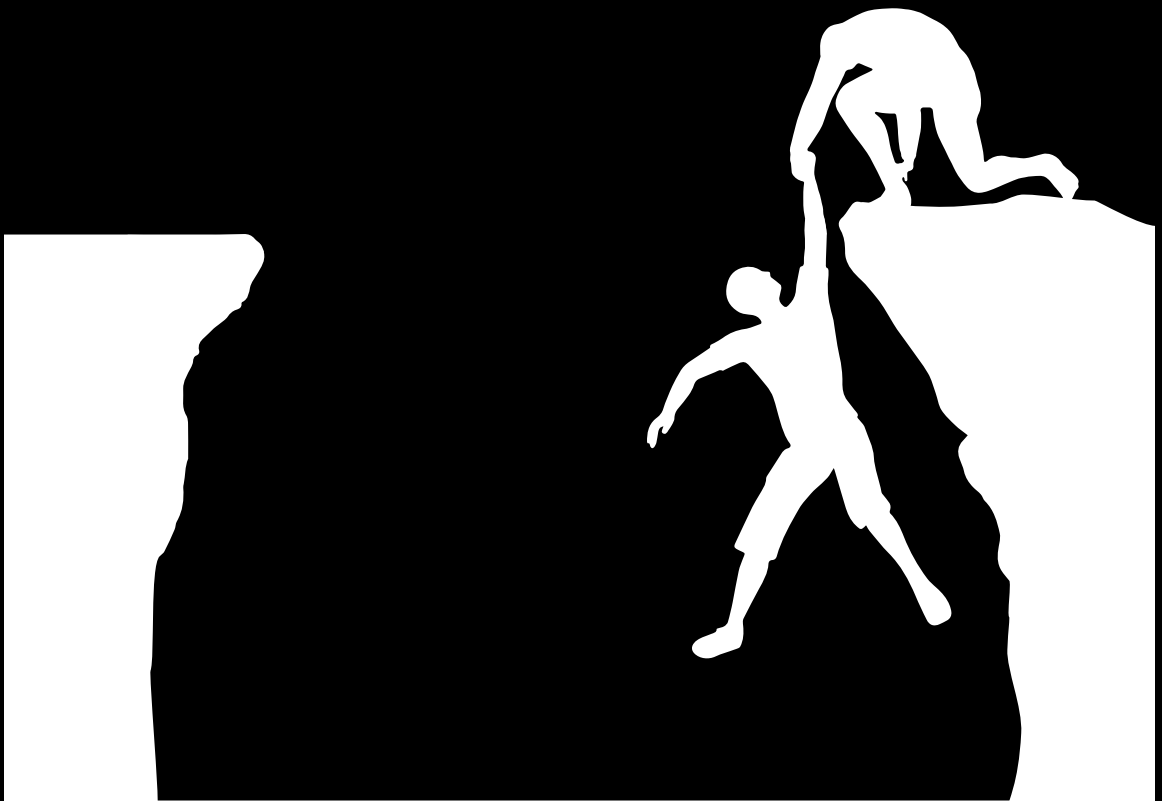


Fallibility and Risk

Living With Uncertainty



Dr Robert Long



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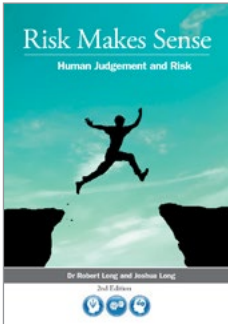
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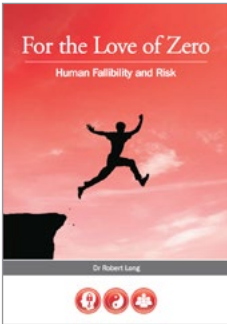
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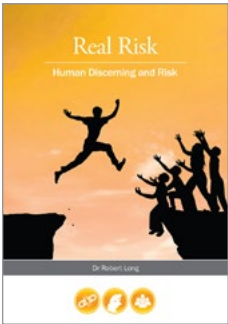
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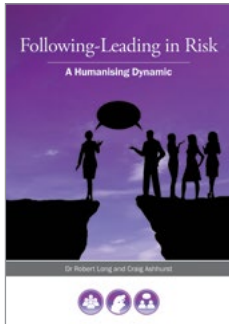
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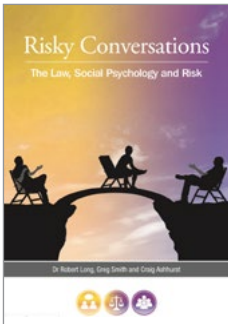
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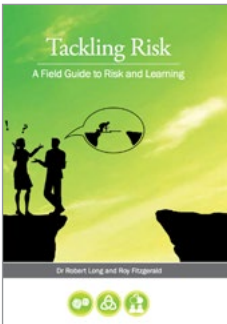
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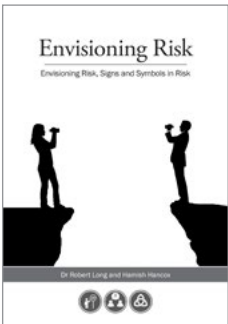
Book 5



Book 6



Book 8



Due for release in 2019

Previous Books Can be Purchased here: <https://www.humandymensions.com/shop/>



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Foreword

Rob Sams - Author Social Sensemaking

Like it or not, I was once a 'Crusader'. I lived a life dedicated to 'saving' people; from themselves, from others, from 'things'. Who else could perform such a critical role? After all I was a Safety Manager, and with that, a bastion of all knowledge about risk. I even had a consulting business named Dolphin Safety Solutions.

I'd put some thought into this name as dolphins were something special to me; they are great communicators, they travel together and look out for each other and they are known for their intelligence. But what did I really understand of intelligence?

While intelligence is great, if we don't understand our ontology (reason for being) or how we 'know' (epistemology), we can easily be deceived into thinking that such knowing will lead us to a happy, fulfilling and rewarding life.

Our modern world seems to place a special value on intelligence. However, if the only reason for knowing is to be the 'smartest person in the room', that to me indicates a life of 'I' rather than 'thou' (Buber). A tension that we all must live with if we are to be fallible beings in this world?

Welcome to Fallibility and Risk, a book not for the faint hearted, but one that just may challenge you enough to push you into 'cognitive dissonance'.

This is a book about life and also about death, about risk and also security. This book may provide some answers, but maybe raise many more questions. This I've learnt, is the very nature of our 'being'; it's paradoxical, where seemingly things that should not co-exist, do. As we aim to make some sense of all this, we also realise that such sense may seem absurd. Yet we still seek to know our 'being'.

The book is the latest in a series of books on risking, living and discerning. All 'doing' words, and things we all ought to do if our aim is to 'be' in this world. Yet doing such things and experiencing life also means that we must live with uncertainty and unknowing. The alternative is to be safe and secure.

However, as I've learnt over the past five years, Risk cannot be 'solved' or 'fixed', rather, it defines our living and being. What a challenge to understand fallible being; especially if we believe life is about answers, rather than questions.

So, what can you expect as you venture through a book written by someone who seeks to help us understand; ourselves, our world and what it does to us?

To start, you'll read about thinkers such as Kierkegaard and Heidegger; they weren't among the recommended authors when I studied 'solutions'. You'll also hear stories of risk through movies, such as Indiana Jones; not from the perspective of some Risk Matrix or control, but rather 'exegesis', religious symbology and myth. I don't recall learning about any of these in my undergrad degree in objects; yet, they are so critical if our aim is to tackle, rather than eliminate risk.

We also learn about hope, faith and importantly fallibility in this book.

These were not words that I considered in 2012, when I started my consulting organisation focused on 'solutions'.

Not long after I started consulting in 'solutions', I started my own spiral into cognitive dissonance. This began after reading Risk Makes Sense. It's also the year that I met Rob Long.

Rob is no hero of mine, nor is he a superhero at large. Rather, he is a teacher, mentor and friend. He was the instigator of a learning adventure, one that would change my life in a way that I could never have imagined, rather only experience.

For example, it was in Austria in January 2017, as my dear friend Gab Carlton and I took comfort from the snow and freezing conditions outside, that I first heard the term ‘perichoresis’ in a casual conversation. It was in the relative comfort of a restaurant in Linz ironically the hometown of Hitler, that I learned about the paradox of legs broken while at the same time carrying demonstrated in the mythology of the kriophoros. Time again, I have experienced being carried, where the pain is shared. Yet I did not realise, nor fully appreciate, how critical this was for learning, growing and developing.

Don’t get me wrong, I’m still regularly seduced to the ‘crusade’, it’s hard to avoid in our world of hero’s, answers and ‘solutions’. However, now as I struggle through life, I can recognise the cues when crusading prevails. I’m grateful for that, which is not to say that it does not continue to challenge me. Such is ‘living’ in the dialectic!

As I try to make sense of all this, I now feel some comfort in not knowing, instead my focus these days is on contemplating and reflecting with a new intelligence.

Reflection did not occur when I was caught up in process, saving and protecting! Crusaders need not reflect, for they already know everything! Thankfully though, reflecting is now a daily ritual.

When Rob first sent me a draft of this book, I initially noticed some mistakes; in spelling and in grammar. Isn’t it interesting what takes our attention if our focus is on saving and fixing? However, as I reflected on what the book was saying to me, and on the questions that it asked me, these trivial details drifted away and I opened myself to learning; rather than policing. It was quite liberating, while also a cause for some anxiety.

Maybe this will be the same for you?

Learning is not always easy, it’s about change after all. One thing I’ve learned about learning though, is the importance of ‘readiness’. Are you ready for what is offered in this book?

When I first read *Risk Makes Sense*, I thought that I ‘got it’. Then, I was confronted with what I thought I knew, and recognised that being the ‘smartest person in the room’ with the answers, was actually part of a bigger problem, not a solution. This was such an important learning for someone intent on ‘saving’. I now value questions, rather than answers.

This means that instead of fearing death, fallibility and harm (all of which have no answers), I now aim to embrace life, with all of its ups and downs and bits in between. Instead of saving others and seeing them as objects, I now see and connect with people, because after all, as Martin Buber (1958) suggests; “All real living is meeting”.

I learned a lot from reading, and questioning this book. I hope you do too.

Robert Sams

Contact Websites

Human Dymensions

Practical training programs and books on the Social Psychology of Risk and Risk Intelligence

<https://www.humandymensions.com>

The Centre for Leadership and Learning in Risk

Education and learning qualifications for Certificate, Diploma and Master in The Social Psychology of Risk

<https://cllr.com.au/>

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Introduction - What This Book is About

There are some unique things about this book, seventh in the series on risk. This is a book that I have decided to offer for free. This is because the issue of fallibility has become critical as the risk industry continue to use language and discourse in denial of fallibility. Since publishing my second book in the series on risk: *For the Love of Zero, Human Fallibility and Risk* (2012) I have been inundated by requests to explain more about the Social Psychology of Risk (SPoR) and the problem with language and symbols of absolutes, perfectionism and dehumanisation in the risk industry.

The risk industry seems to be blind to the nature of the unconscious, semiotics and social psychology. It seems as if the word 'fallibility' is taboo and being human is equivalent to being permanently defiled. Understanding the nature of semantics, semiosis, semiotics and the semiosphere and how these shape our lives, society, organisations and culture unconsciously is critical to understanding fallibility, risk and problems of perfectionism.

As the world becomes more consumed with the ideology of technique-as-saviour its by-products and trade-offs become more acute and worrying. The trajectory of the ideology of 'Technique' explained by Ellul or 'Technopoly' as coined by Postman, seems to be taking us to a growing devaluation of learning, dehumanising of persons and the emergence of 'big data' and algorithms projected as the saviours of our age. Whilst humans seem more 'connected' and have many 'friends' online we are more disconnected with ourselves and with each other than ever (Turkle, 2011, *Alone Together*). Whilst the world seems to be on social media we seem less humanising in the way we organise particularly in relation to how we tackle risk.

There is so little written on fallibility and risk, it seems as if Risk wants to think of everything except the humanising of persons, certainly in the industries concerned with risk. The risk industry would much rather write and discuss how to quantify 'human error' than talk about fallibility and human 'being'. The focus of human error language and discourse in the risk industry has led to the demonising of humans by their mistakes and seeking the total prevention of mistakes. This is highlighted in the work of Reason (1997) who first tried to define human error as 'unsafe acts' in 'unintended' and 'intended' actions-slips, lapses, mistakes and violations. These were then defined as 'attentional failures', 'memory failures', 'rule-based knowledge mistakes' and 'routine violations or exceptional violations'. With the help of Reason and positivist ideology the risk industry could name the cause of injury as 'human error' and then theoretically 'fix' the problem. Interestingly all Reason's definitions were neatly wrapped up in graphic semiotics of pyramids and concept trees to confirm emotional validity. Apparently, human error covers a multitude of sins.

However, over time the term 'human error' has become virtually meaningless. Human Error is often used as a behaviourist by-line to avoid serious reflection on human 'being'. Instead, human error has become a language for not thinking about human 'being'. Many of the books written on Human Error (eg. Dekker, Wallace and Ross, Reason and Hollnagel) discuss everything except the nature of fallibility in their quest to name and tackle Human Error. Many of the texts that focus on 'human factors' also avoid discussion on fallibility instead hold a focus on humans as a sub-set factor in a system. Even in definition of resilience the focus remains on engineering and individualism within a system rather than the nature of personhood and human 'being' within an ecological framework. This all demonstrates the evolving power of STEM-only knowledge (Science, Technology, Engineering and Mathematics) and discourse as the methodology for the risk industry.

This seventh book in the series on risk is more philosophical than all previous books. Whilst it would be good to write under the KISS principle this cannot be so given the complexities associated with understanding the nature of humans, being and fallibility. When exploring the ageless questions about: good and evil, suffering, harm, free will and determinism, we must delve into philosophy, the love of wisdom. There are no simple answers to these ageless questions. There is no easy fix for the challenges of fallibility. Wisdom is not about a confirmation of certainty in knowing but more often a security in not being troubled by not knowing.

In the industries associated with risk (safety, security and Risk Management) it seems that meaning-as-semiosis in living is constructed as 'error aversion'. Rather than focusing on the fullness of life, learning and all that



comprises human 'being', the risk industry takes a deficit focus on prevention and aversion. The gaze seems to be on what humans 'are not' rather than what humans 'can be' or who humans are. In this respect an existentialist dialectic identified with Jacques Ellul (*What I Believe*) and the work of Paul Ricoeur (*Fallible Man & The Symbolism of Evil*) will help to bring the nature of fallible human 'being' into sharper view.

The nature of fallibility seems greatly misunderstood in the risk industry as defined by a binary worldview. The binary worldview has an either/or frame on how it understands life. Binary thinking avoids the complexity of real living by framing the world as simply: good or bad, black or white and good or evil. This book argues that dualist and binary understandings of the world lack the framework to help develop wisdom in understanding risk and fallibility.

I will argue that it is only in an existentialist dialectic and paradox that human fallibility can be properly understood. I will argue that the risk industry in seeking to avoid ambiguity, paradox and equivocality in how it organises suppresses fallibility and demonises humans in risk. The outcome of prevention-focused and deficit-focused semiosis is the promotion of fearful living that takes from people of all that is refreshing about learning, innovation, creativity and discovery.

Much of what is assumed about fallibility and its mis-definition has been shaped by the history of fourth century Augustinian theology. Augustinian theology posits the idea of Original Sin that is, that humans are morally corrupt by spiritual inheritance from the 'fall' of Adam and Eve, hence fall-ibility. Coupled with this theology is the assumption of the juridical framework of Penal Substitutionary Atonement (PSA). It is from this theology that human fallibility and mortality have been deemed corrupt, defiled and polluted. It is clear from the language of the risk industry that the assumptions of Original Sin and PSA permeate the secular risk industry. In this way harm, Human Error, vulnerability and mortality have been lumped together as defilement as some kind of hereditary human toxicity. This erroneous idea is captured in the Bradley Curve made popular by DuPont in 1995 as a means to understanding how 'natural instincts' (read Original Sin) are corrupt and that only through a DuPont system (read PSA) can one achieve zero (read infallibility).

The risk industry seems to say very little about human 'being' or about 'being' human. The language of perfection and innocence that dominates risk industry discourse simply gets in the way of understanding personhood and human 'being'. In this regard the risk industry lacks a systematic ethic. Without a well articulated 'ethic of risk' we find the risk industry speaks in gobbledygook notions of aspiration for zero and goals and targets, that mask a dehumanizing ethic.

The choice of the word 'fallibility' for the title of this book is intentional, to capture the focus of the risk industry on religious discourse. The language and semiotics of the risk industry has now evolved its own special soteriology (theory of salvation) based upon the deification of systems, processes, technique and positivist paradigms. After all, tackling risk is an act of faith or involves a leap of faith, because in risk one acts with uncertainty about an outcome for salvation. This is because what is often at-risk is death of a humans. So, in the end all will be safe and secure for humans if they get the technique right. The ideology of 'technique' is important in this discussion because the quest for total efficiency in technique is connected to the post-humanist and transhumanist dream of fixing the associated problems of fallibility. Unfortunately, fallibility gets in the way of dreams of perfection.

The argument of this book challenges Science Technology Engineering Mathematics STEM-only methodology and positivist approaches to knowledge. The challenge of this book is for the risk industry to embrace a transdisciplinary approach to risk and to include other bodies of knowledge and disciplines into its discourse in tackling risk.

Whilst there is nothing wrong with STEM knowledge and it has its place, the world has moved beyond this tidy paradigm into greater complexity and interconnectedness in multiple-realities. STEM alone is too closed a worldview to help tackle the brave new world of wickedity in risk.

The religious language and discourse used in the risk industry is evidence in the growing trend of secularisation of the religious and the religiousness of the secular. We see in popular culture particularly in movies, the yearning for transcendence and in religion the attraction to Western consumerism, individualism and materialism. This is mirrored in the risk industry as it begins to realise that risk is a Wicked Problem that cannot be 'solved' or 'fixed' yet drifts into metaphysical language and discourse about life, death and saving lives.

The focus of this book is on language and discourse, symbols, signs and sign systems in understanding and living with fallibility. The closing chapter of the book explores constructive and positive ways of approaching the challenges of fallibility and risk.

A critical aspect of this book is understanding the powerful influence of archetypes, signs, symbols and poetics on the unconscious and collective unconscious. All language and discourse affects the mind and collective mind. This is why propaganda and indoctrination are often effective, because semiotic language and discourse powerfully shape thinking, beliefs and collective worldview. The risk industry can be most helpful in helping fallible people tackle risk if it learns to be silent about speaking nonsense and more helpful if it learns to think critically, semiotically and discerning in tackling the realities of risk.

Critical questions

The following key questions guide the discussion of the book:

- What does it mean to be human, fallible and at-risk in the world?
- How is fallibility defined and what does it imply for people tackling risk?
- What does the discourse and language of infallibility do to humans?
- How does infallibility discourse prime and frame: failure, depression, deficit focus, guilt and blaming?
- Why is binary ideology and language bad for thinking and acting in risk?
- How does binary language influence the way people understand and manage risk?
- Why is it important to acknowledge fallibility in risk?
- What knowledge and skills are required to live comfortably with risk?
- What tools and approaches are most helpful in tackling risk as a fallible human?

About the Cover

As with all books in the series the cover image is structured across a chasm requiring a leap of faith. In the cover of this book we can see that the jumper has just hit the edge and is being rescued by a female companion in emphasis in how the fallible helps the fallible in learning. The black and white stands in contra-distinction to all other covers in the series to emphasise the nature of binary and polar constraints placed upon leaps of faith. In this sense the companion is helping the jumper leap beyond such constraint in trust and vulnerability.

Risk Industry

The purpose of managing and tackling risk is the safety of humans. The work of the security, Risk Management and safety industries is to keep people safe. Whilst there are three distinct silos in three industries in risk, there is one risk industry whose purpose it is to manage risk to life and work for safer outcomes for humans. For this reason the words risk, safety and security should be read interchangeably throughout this book and are described collectively as the 'risk industry'.



Acknowledgements

With special thanks to the following who despite my fallibility have become colleagues, confidants and trusted friends: Craig Ashhurst, Gabrielle Carlton, Dave Collins, Hayden Collins, Roy Fitzgerald, Hamish Hancox, Dee Henshell, Zoe Koskinas, Jenny Krasny, Keith Lewis, Clive Roger, Rob Sams, Alan Seymour, Narelle Stoll and Matt Thorne. I am so glad these people do not live under the regime of absolutes and intolerance but rather offer respect, faith, tolerance, questioning, critical thinking, reading, trust, hope, resilience, discovery, acceptance, care, helping, listening and love - without measure. It is your support that makes this book possible.

Icons

As with all books in this series on risk the cover of the book takes place with an action across a chasm. The first book *Risk Makes Sense* introduced the reader to the foundation for all following books in understanding risk as a leap of faith. As each book followed each cover conveyed the critical message of each book. This book cover depicts a person being saved from a mis-leap in faith. The idea being that fallibility is essentially a social identity similar to the cover in book three *Real Risk* where the jumper is being caught by a community of children. If fallibility is understood as an individualist frame we are indeed doomed.

If however we see strength in the vulnerabilities of fallibility as a social identity we see beyond the limits and constraints of fallibility to the strengths of being fallible together. In this we we can understand that in the paradox of being vulnerable we can learn, discover and welcome the uncertainties of Risk. There is no learning through risk aversion and no community in isolation. The three icons that form the footer for each page indicate the following:



Broken Chain: The broken chain symbolises the broken relationship of humans with themselves in the denial of fallibility in language, discourse and symbolism. The chain represents strength in interconnectedness. The quest for infallibility is what breaks human self understanding and connection to other fallible humans in the human community.



Head, Heart and Gut: For quite some time the concept of being human was understood in a dualist way, it was thought that the brain had no connection to the body and that one's personality emerged from outside of oneself in the spirit through the soul. We know now that human persons are fully integrated and that everything in our being is interdependent. The embodied human is a wonder and a mystery, a triarchic blend of conscious, semi-conscious and unconscious being. The *One Brain Three Minds* concept is signified in this icon.



Question in Mind: Humans seek meaning and purpose in living and being. Without meaning, purpose and belonging humans experience living but not 'being'. Humans are social beings who need to belong and feel loved. This icon signifies the fundamental questioning nature of human being. It's not knowing Y that matters to being because the nature of fallibility is knowing in not knowing. It is asking Y that matters because faith in not knowing Y is the foundation of being comfortable with fallibility. Human being is not necessarily about having right propositions but rather realistic dispositions. The disposition that rejects fallibility alienates one from oneself, others and the world.

Glossary

A full glossary is located at the end of the book in Chapter 7.

Capitalization

Some common words throughout the text are capitalized to indicate archetypal character, requiring contextual discernment and some understanding of archetypes.

A Freebie Worth Editing

There are a number of reasons why this book is being released as a free download. Some of these reasons have already been discussed in the introduction. It is important to note that this book has not been professionally edited as previous books in the series on risk. This has been done to keep costs to a minimum but also to emphasise the fallibility of the author and the process. It is very rare that one can purchase any book and not find an error in it. I have paid for professional graphics because semiotics is a critical element in communicating the Social Psychology of Risk.

For those of you who do find an error in this book, I trust this doesn't constrain your ability to read it. Neither do I hope this makes the work unforgiveable or interrupt flow. These are core elements in the message of the book and part of the reason for its giveaway. Another benefit of an ebook is capability to go to active Internet links.

There is always the risk that a freebie can be more easily abused, misunderstood or cheapened. This is not the intention of this book. The labour of love in writing this book was neither cheap in time nor endeavour in spirit. However, in seeking the greatest consistency with the message of the book I decided to be open to grammatical, literary, spelling critique as well as philosophical, theological and ethical debate.

For me it is more important to emphasise meaning and semiosis over detail and flow over pedantics. I am not interested in fixations with accuracy and certitude but rather have faith in the reader to join the dots that are not there.

If you enjoy the book then please write to me and share your insights.

Rob



SECTION ONE

What is Fallibility?



CHAPTER 1

What is Fallibility?

Man is endowed with a positive power of erring that would argue against divine perfection - Paul Ricoeur, Fallible Man

To err is human, to forgive, divine - Alexander Pope, Essay on Criticism (Part II)

Our brain does not have sufficient information to know for certain what is out there, but it is not paralysed by uncertainty. - Gerd Gigerenzer, Rationality for Mortals, How People Cope With Uncertainty

The etymology of fallibility comes from *fallibilis* (latin) meaning 'liable to err, deceitful' or 'that can be deceived' – fallacy, to 'fall'. The word is associated with the myth of Adam and Eve meaning 'to be mistaken, prone to error'. This idea of deceit is important as is the notion of 'being prone to' or having 'the possibility' to deceive. Unfortunately the idea of 'the fall' has been interpreted as the loss of innocence and perfection most associated with the idea that humans were created perfect. This is most associated with the idea of Original Sin or Hereditary Sin put forward by Augustine in the fourth century and leading to the theology of Penal Substitutionary Atonement (PSA). Augustine argued that Adam's sin was transferred or inherited by 'concupiscence', an innate depravity to make one sinful. The emphasis is binary and focused on 'acts' with a view to a theology of atonement. Augustine's ideas were also shaped by his opposition to Pelagianism, the idea that humans can lead a moral life without the need for divine intervention.

Fallibility has historically been understood as being broken or at fault and is most associated with moral failure. Through Augustine 'fall-ability' has been understood through the 'fall' of Adam. It has also been associated with the demonisation of women through Eve.

So one cannot talk about fallibility without reference to its history, theology and in many cases its mis-definition.

However, there are ways of thinking about fallibility beyond the binary construct of the fall and the theodicy of good vs evil as framed by Augustinian Original Sin and PSA.

The Pain of Childbirth

I can remember the birth of our first child as if it was yesterday. It was an excruciatingly long labour complete with much interest in a small regional hospital in Barmera South Australia where everyone knew everyone. The year was 1978 and in many respects I was lucky to be able to be included in the event. It wasn't long before that the presence of partners was considered a problem to the birthing process. As it was I was told to not help and stay at the head of my wife and watch via a large mirror.

There is nothing quite like the experience of childbirth and the associated hours of pain, distress and suffering bringing a child into the world. Even if one brings children into the world via some form of anaesthetic there are many painful moments to come psychologically, physically, socially and emotionally in the parenting process. In some ways the longitudinal pains to follow make the pain of childbirth though intense, seem insignificant because of their lasting effect.

All four of my children were born naturally and each birth is remembered with the joy of running down the hospital hallways beaming with happiness. There is nothing quite like watching your child come into the world. There is nothing quite like sitting helplessly at the head of your partner watching her endure such pain and be powerless to help except for presence and comfort in presence.

For my first birth there was no mobile phones just a pay phone in a hall way and I am sure when I called my parents in Adelaide they could probably hear my shouts of joy 300 kms away without the phone. I think someone did request I not shout so loud and to calm down. But I was so excited, I had just watched my wife go through an excruciating 30 hours of labour. Is this where the expression ‘a labour of love’ comes from?

From the moment of birth our son was attached to my wife, the bond of mother and child was magnetic. Little did we know then that there would be three more to follow and so two boys and then two girls, all now adults over 30 years of age. This was the beginning of many years without proper sleep, of always thinking about another that oneself and the constant demands and necessities in being a human family.

Fallibility is about the human journey from birth to death. From the moment we are conceived humans are governed by necessity and social dependence. At the most basic biological level we must eat, sleep, drink, defecate and be sheltered or we will die. When we are born into the world we are born into what Buber calls the social ‘i-thou’.

To be borne human is to be born socially dependent and conditioned by necessity and this makes all humans vulnerable. Yet in that vulnerability grows love, faith, trust, learning, discovery and hope, the foundational values of human knowing and being. This is the paradox of fallibility, the Perfect cannot know these things. The infallible doesn’t even make theological sense since all relationships are founded in pain and loss.

It is in the dialectic between the i-thou in the hyphen, that all human being exists. That hyphen is the umbilical chord of social life and signifies the social connection between the one and the many that makes humans social beings.

The Etymology of Fallibility

We tend to associate fallibility with the following language:

- | | | |
|-----------------|-------------------|----------------|
| • Weakness | • Uncertainty | • Corrupt |
| • Deceit | • Un-reasonable | • Sin |
| • Finitude | • Messiness | • Fault |
| • Frailty | • Mistakes | • Error |
| • Errancy | • Undependability | • Uncontrolled |
| • Imperfection | • Human | • Defilement |
| • Limitation | • Finite | • Oops! |
| • Vulnerability | • Fragile | |
| • Unreliability | • Death | |



The critical elements in fallibility are necessity and vulnerability. Fallibility means we cannot exist by ourselves, nor the ecology to which we belong. Life as we know it depends on death in order that we might live. Things have to die so that we might eat them, death is a paradoxical precondition of living. Every time it comes to meal time we acknowledge through our stomachs that we are not self-subsisting 'gods'. We are finite creatures in need of sunlight, photosynthesis, decomposition, entropy, soil, water, animals and communities, in order to live. In our consumerist materialist world we tend to insulate ourselves from thinking about necessity through economic production, materialism, busyness, technique and the pursuit of pleasure/happiness.

How we think and talk about food, necessity and the things that sustain us reveals how we relate to the world. As humans we are social organisms in an ecologically co-dependent world. We learn very quickly that without rain our ecology becomes stressed and poverty leads to sickness, crime, neglect and malnutrition. We also learn in our fallibility that illness is just one turn away. In our fallibility we learn that no one is immune from sickness.

The Dance of Death

I remember standing in front of the Dance of Death at St Nicholas' Church in Tallin Estonia (<http://www.dodedans.com/Eest.htm> and pictured at Figure 1. *15th Century Dance of Death by Bernt Notke, Tallin Estonia*. and Figure 2. *Dance of Death in Situ*) and thinking about ways in which our society attempts to cover over fallibility. Coeckelbergh (2013 *Human Being @Risk*) calls these 'anti-fallibility strategies'.

The Dance of Death painting is on wood and only a fragment of the original 30 metre piece remains positioned on a stand and is approximately 2 metres high and 5 metres wide. It is a stunning piece of art work with the skeleton of death between Bishops, Nobles, Kings, Queens and Lords, leading them in their 'dance' to death.

I had studied the Black Plague and Black Death in History but like all pandemics we become desensitized to death quickly with large numbers. There is lots of research to show that our minds cannot comprehend large numbers and identify with them. However, when we see a photo of a little Syrian boy washed up dead on a beach (https://en.wikipedia.org/wiki/Death_of_Alan_Kurdi) we are all shocked.

The threat of pandemic is symptomatic with being human and fallible. The Spanish Flu in 1918 killed 75 million people, measles which killed 200 million people over the past 150 years. It is estimated that smallpox killed 500 million people just in 20th Century (<https://en.wikipedia.org/wiki/Pandemic>). More recently the Ebola Crisis killed more than 28,000 people. These are all big numbers and difficult to comprehend but one small boy washed up dead and alone on a beach tore at the heart strings of the Western world and resulted in an emotional connection to the Syrian crisis (<http://time.com/4162306/alan-kurdi-syria-drowned-boy-refugee-crisis/>).

What we learn from this painting is that wealth and privilege do not diminish the realities of fallibility. The grim reaper is no respecter of persons. Illness is the great leveller in being human. The same rain falls on us all just as the same sun shines on our faces.

Figure 1. 15th Century Dance of Death by Bernt Notke, Tallin Estonia.



Figure 2. The Dance of Death in Situ.



Fallibility is something that simply is, it is neither good nor bad but rather a necessity of human living. Similarly, the randomness, messiness, finiteness and uncertainty of the world reminds us that we are only safe until the next cyclone or storm. The idea that fallibility implies fault, defilement or blame is a lingering residue of Augustinian theology.

Necessity is an essential part of being human, there is no hiding from 'being' in the world. The elements of human-being-in-the-world don't discriminate by some unseen filter or 'invisible hand'. We certainly don't need binary theories of human error based on the binary hermeneutics of 'the fall'. Neither are we well served by binary denials of fallibility common in the risk industry language of zero harm or the ideology of technique bound up in transhumanist discourse. More discussion on transhumanism, anti-fallibility strategies and seeking perfectionism later in the book.

We may also hear people say 'I am only human' in seeking to forgive for fallibility and to explain mistakes, but this is not a book about death nor fatalism. One can 'frame' fallibility as a 'problem' to overcome or as an opportunity to be fully human. Fallibility is better framed as a dialectic that is, the movement of humans in social relations with people, communities, environment and the world. Such movement is essential to growth, development and learning. Fallibility is not just a necessity for humanity but a condition of humanity. There is no freedom without uncertainty and no learning without risk. It is because of fallibility that risk has meaning. The quest to escape fallibility is also the quest to escape from learning, risk, uncertainty and associated freedoms in living that come from the dialectic between choice and necessity.

Infallibility

Talk of infallibility is associated with the following language:

- | | | |
|-----------------|----------------|---------------|
| • Perfection | • Divine | • Foolproof |
| • Absolute | • Sure | • Infinite |
| • No mistakes | • Omniscient | • Eternal |
| • Inerrancy | • Omnipotent | • Everlasting |
| • Never wrong | • Omnipresent | • Sinless |
| • Dependability | • Immutable | • Innocence |
| • Faultless | • Certain | • Infinity |
| • Blameless | • Anti-fragile | • Zero |

The critical elements of infallibility are perfection and absolute being. Infallibility is beyond that which is human, and is not limited and associated with uncertainty. All religions attribute infallibility to god-ness and hence that which is infallible is eternal and everlasting. That which is eternal denotes the quality of being perfect and that which is everlasting denotes no end. The construct of infallibility and its attribution to god however doesn't sit well with Christian theology who has a god who is both embodied/incarnate and who participate and is affected by the created. Many Christian theologians such as Pierre Teilhard de Chardin suggest that this god is not infallible but is in evolutionary process. You can obtain de Chardin's books here: <https://archive.org/details/ChristianityAndEvolution>.

In Process Theology there is movement in the Christian god and god learns. This god not only creates the world but participates, is affected by and embodied in fallible humanity. Liberation, process, post-modernist and feminist theologians also reject the Augustinian notion of hereditary Original Sin and PSA. This paves a new road for understanding fallibility and human being.

The constructs of various church confessions and creeds has god defined 'without parts or passions', a static god removed in the heavens perfect and untouchable. This god of wrath waits in time to send sinners to hell in justification for love because fallibility is interpolated as defilement. What strange theology and soteriology! However, a similar philosophy dominates the discourse in risk.

Time, Space and Knowledge

In the face of time, space and knowledge all humans are limited. Those who are not limited by time are known as omnipotent, by space omnipresent and by knowledge omniscient. These three are defining characteristics of infallibility. The reason why humans experience pain, suffering and harm is because they are constrained by Time, Space and Knowledge.

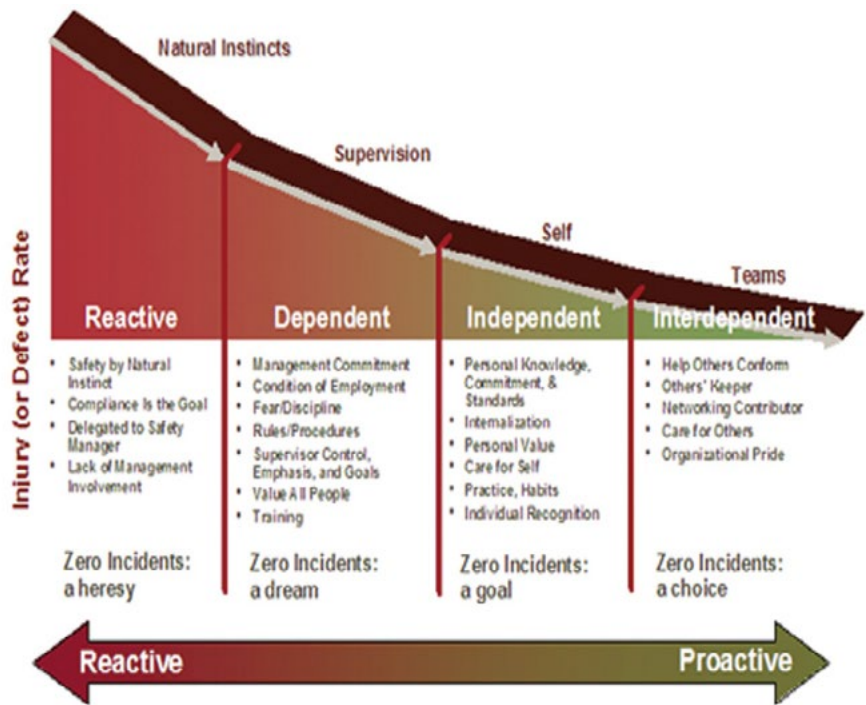
One of the beauties of living in Canberra Australia is the experience of living through four distinct seasons. Though we know roughly when the seasons come and go, we know so without prediction. Only the infallible can claim predictive knowledge, the rest of us gamble.

When each of our four children were born we had no idea when the labour pains would start, we had a rough idea but some children came late and others early. Living without prediction is life's school master in lesson one about risk. Learning to live under the unseen decisions of: Time, the limitations of Space and the innocence of Ignorance is what makes humanity vulnerable and fallible. To deny this reality is a sure sign of madness.

Fall-ibility

One of the dominant models in the risk industry for understanding and managing risk is the Bradley Curve first developed by DuPont in 1995. The Bradley Curve (*Figure 3. The Bradley Curve*) replicates the assumptions of Augustinian theodicy and proposes that humans have ‘natural instincts’ for harm. You can see numerous examples of the Bradley Curve by searching in Google images. Interestingly, the language of the Bradley Curve is theological in proposing the rejection of zero harm is a ‘heresy’.

Figure 3. The Bradley Curve.



The Bradley Curve then proposes that zero incidents is ‘a choice’ but determined, reinforcing the argument of Augustine and framing risk as a problem that can be controlled by will. The Bradley Curve assumes a binary notion of cause and is conditioned by the primary assumption of loss from perfection. To gain perfection from the fall one obviously needs the systems of DuPont.

The Indoctrination of Risk

Fundamentalist Indoctrination

As a child in a fundamentalist household every Sunday was consumed with religious activity. Sunday commenced with Sunday School before church and then the main worship service. The afternoon involved Christian Endeavour classes and then an evening Gospel Service focusing on evangelism and conversion. Then the evening would close out with singing and youth fellowship. During the week there were more activities on week nights including Boy’s Brigade and Youth Club on separate nights. Sometimes on a Saturday night there was a special church ‘Social’ in competition with the sin centres of dances, movies and any of the secular-defined evils like playing cards or board games. On most weeks I would be involved in more than ten or more distinct church activities and meetings.



This would all seem quite strange to most people and yet this activity and philosophy was my world for many years. All this activity was fun centred in lots of peer relationships, activity, learning, music and belonging. It wasn't until I was much older that I realised that most of what I received was indoctrination in a binary fundamentalist view of Christianity. This doesn't mean that it was of no value. Whilst fundamentalism was the discourse the activity was fun and the belonging created great security and meaning.

With such an investment in all that structured indoctrination it was painful in cognitive dissonance to break free from those many years of attachment and sunk cost.

In many ways I don't see much difference from the fundamentalist obsessions and indoctrinations in place in the risk industry. Much of what I see in the risk industry reminds me of that binary fundamentalist culture. Once some idea gets into the risk industry it becomes nearly impossible to remove it from the culture because of the way ideas get institutionised. The evolution of risk, safety and security habits in many ways replicates the religious indoctrination of the church. Here is the church thousands of years later bogged down in Augustinian theodicy and yet the risk industry is now bogged down with many excesses in bureaucracy, habits and activities that have no meaning or effectiveness in managing risk. I look at risk matrices, pyramids, swiss cheese, dominoes, bow ties and a host of sacralised models of attachment that are believed yet have no effective value in tackling risk. Many of these reductionist models are accepted as orthodox and have significant 'sunk cost' similar to the mechanisms of religious indoctrination.

There is very little difference between the binary model of religious fundamentalism and the binary models that pervade the culture of the risk industry. Mary Douglas highlights this in her discussions on risk and taboo in *Risk and Blame, Essays in Cultural Theory and Purity and Danger* (1992) and *Purity and Danger, an Analysis of the Concepts of Pollution and Taboo* (1984). Both of these books can be obtained online here:

- <http://14.139.206.50:8080/jspui/bitstream/1/1938/1/Douglas,%20Mary%20-%20Risk%20and%20Blame.pdf> and,
- https://monoskop.org/images/7/7d/Douglas_Mary_Purity_and_Danger_An_Analysis_of_Concepts_of_Pollution_and_Taboo_2001.pdf

Douglas demonstrates that through politicization risk has now become defined not as probability but has been redefined as 'danger'. She also demonstrates that the thinking of risk has also moved from a collective understanding to a individualist understanding in Western cultures. This commitment to methodological individualism has also led to attempts to objectify risk and Risk Management. This is usually undertaken by omitting any sense of cultural, metaphysical or social psychological influence in considering risk and through the focus on STEM-only knowledge as the means to objectify risk and define the processes of Risk Management. Unfortunately, in the search for freedom from bias through STEM-only, the Risk Management world has become a narrow discipline blind to its own religious subjectivity. This is a key message of this book.

Discourse in risk aversion has now become associated with the notion of risk as transgression (Douglas, 1992, p. 25). In the preindustrial world Christianity attributed the word 'sin' to such discourse. It was through the discourse on sin that the preindustrial world was able to indoctrinate and control community taboos attributed to an angry god and blame for pandemics like the Black Death and any other natural disaster, drought, earthquake, plague, pandemic, even for birth defects and disabilities at birth. The masculinist church also linked transgression to the sin of Eve and thereby gaining theological support for the demonization of women. Through fundamentalist binary discourse the community could mobilize against witchcraft invoking judgement and death for infidels. The same is true for ISIS in 2017!

The fact that the concept of sin is so well known attests to its cultural homogeneity. Indeed, this discourse was used on a construction project (name blocked out) recently see *Figure 4. Repair and Prevent* and in a road safety campaign, see *Figure 5. 7 Costly Cins*.

Figure 4. Repair, Repent and Prevent.

NO HARM
Processes

Job Safety and Environmental Analysis

Project Centre Title: _____ JSEA #: _____

Job Task: _____

Company/Organization carrying out the work: _____

Description of work location: _____

Description of any relevant interfaces with other trades and other activities: _____

Attachments: _____

RISK RANKING TABLE

Consequence	A	B	C	D	E
1	1-1	1-2	1-3	1-4	1-5
2	2-1	2-2	2-3	2-4	2-5
3	3-1	3-2	3-3	3-4	3-5
4	4-1	4-2	4-3	4-4	4-5
5	5-1	5-2	5-3	5-4	5-5

The hazard rating number will determine the degree of risk associated with a particular hazard.

High Risk = 1 to 4
Medium Risk = 5 to 16
Low Risk = 17 to 25

RISK = LIKELIHOOD x CONSEQUENCE

LIKELIHOOD

A. Expected to occur (limited circumstances)
B. Will probably occur (normal circumstances)
C. Might occur (at some time)
D. Could occur but would not be expected
E. Almost impossible

CONSEQUENCE

People

1. Fatality or permanent disability
2. Serious but temporary or direct
3. Minor injuries (MITS) or stress
4. Slight injury (SIT) or stress
5. No harm done

Environment

1. Permanent Ecological damage
2. Minor but irreversible ecological damage
3. Limited but serious harm environmental effects
4. Minor short term environmental effects
5. No measurable environmental effects

REVIEW AND SIGN OFF

REV 1 / / / Details of changes: _____

REV 2 / / / Details of changes: _____

To be reviewed by: Foreman/Engineer then Sustainability Manager, then the Safety Manager.

Proposed: (Name) _____ (Sign) _____

Reviewed: _____

Environmental: _____

Safety: _____

PREPARE AND PREVENT, DON'T REPAIR AND REPENT!

ENSURE YOU'RE SIGNED ONTO THE JSEA FOR THE TASK.
REMEMBER YOU HAVE THE POWER TO CHANGE WHAT YOU SEE FIT

Note the language invoked for this poster warning about risk under the rubrik of zero. It is quite common for tier one organisations to invoke such religious language particularly under the discourse of ‘Cardinal Rules’, ‘Golden Rules’, ‘Ten Commandments’ or ‘Life Saving Rules’. Note how the mantra as religious slogan, is connected to the religious iconography of the Risk Matrix which has become the go-to icon for Risk Management. Repentance begs the confession of sins and the psychology of conversion.

The Risk Management Matrix is one of those indoctrinated fixtures that have no supporting evidence to effectiveness. Indeed, the Risk Matrix has created a whole game of reducing risk through ‘mumbo jumbo’ so that a Job Safety Analysis (JSA) or Safe Work Method Statement (SWMS) does not need to be performed. In many organisations these matrices semiotically represent the nonsense of religious gymnastics associated with Risk Management. Greg Smith demonstrates the nature of this ‘sport’ here: <https://mysafetythoughts.com/2016/09/03/work-as-it-is-actually-performed-investigating-when-nothing-happens/> and discusses this with me in our video series on risk here: <https://vimeo.com/166158437>



Figure 5. 7 Costly Cins

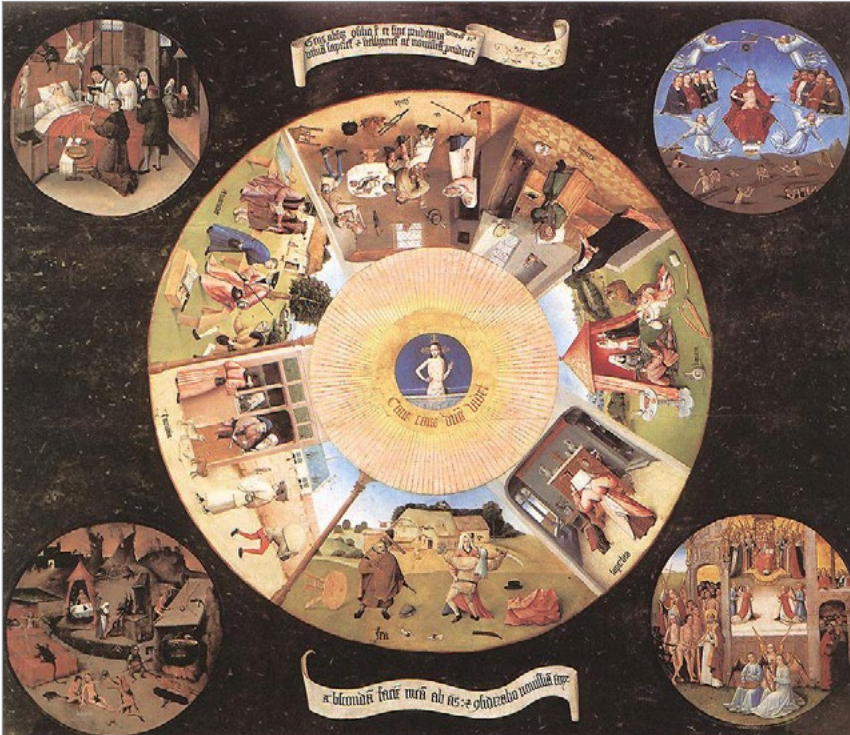


Note the clever use by the Australian Federal Police of the homophone ‘Cins’ to Criminal Infringement Notice and the use of the divine number 7. This was a beer coaster I picked up in a Hotel in Canberra. The seven deadly sins are also known as the Cardinal Sins and Capital Vices, much of this language repeated in risk industry marketing and rhetoric usually with use of the number seven or ten, replicating the ten commandments. According to the standard list, the vices are: pride, greed, lust, envy, gluttony, wrath and sloth, which are contrary to the seven virtues. The funny thing is that these sins named actually number eight (gluttony, fornication, greed, pride, despondency, wrath, nainglory and sloth) and date back the the 4th century beginning of the Monastic period of Chritianity. The entire discourse in these beer coasters is premised on PSA in juridicial and forensic theology.

Bosch and Sinfulness

I was fortunate to see much Hieronymous Bosch at the Museo del Prado in Madrid and his *Seven Deadly Sins and The Four Last Things* is amazing. See Figure 6. *Seven Deadly Sins and The Four Last Things*. Whilst at the Prado I also saw Bosch's *Garden of Earthly Delights* along with many Picasso and Dali. *Guernica* by Picasso was particularly memorable, so large (3.5 m x 7.8m) with armed guards and strict rules about no photos etc. We learn so much from artists-as-philosophers, particularly in thinking about fallibility and infallibility. Bosch so beautifully captures the theodicy of Original Sin and PSA in his works. It is worth a study on its own to investigate the classic works of art and their interpretations of Original Sin and PSA. So much of Art is the concern with life and death, fallibility and infallibility.

Figure 6. *Seven Deadly Sins and The Four Last Things*



Even though many people know the word 'sin' and know its context, very few know its meaning or have much understanding beyond the Adam and Eve myth about some behaviourist notion of doing immoral things or wrong doing.

One of the key drivers of the extremes in religious discourse in the risk industry is the semiotic and semantic of zero harm. The discourse and language of the absolute immerses organisations in the quest for infallibility and all that can be associated with it. This takes organisations and people on a natural religious trajectory to discourse in absolutes and fallible/infallible symbols. Zero and infinity are the same thing, this was discussed in the second book in this series on risk - *For the Love of Zero, Human Fallibility and Risk* (2013).

Douglas (1992, p. 29) also comments:

The dialogue about risk plays the role equivalent to taboo or sin, but the slope is tilted in the reverse direction, away from protecting the community and in favour of protecting the individual ... Being 'at-risk' in modern parlance is not the equivalent but the reciprocal of being 'in sin' or 'under taboo'. To be 'at risk' is equivalent to being sinned against, being vulnerable to the events caused by others, whereas being 'in sin' means being the cause of harm.

The language of sin and perfection is all predicated on the acceptance of the binary discourse of innocence and the defilement by 'the fall'. We also observe this in risk industry rhetoric on Human Error. What follows is an associated stigma with fallibility being the cause of harm, the demonstration of defilement. Once there has been a risk transgression there then needs to be reparation and repentance.

It has been my experience that following any incident what results is some kind of purge or inquisition, cleansing and re-entry into the faithfulness to the law, standard or rule. Usually there is some extra system or bureaucratic process added as demonstrated iconic commitment to 'saving lives'. The focus on the apparent objectivity of STEM-only thinking masks the subjectivity of the whole process which often results in the presentation of blame and 'scapegoating' attributed to a person, group or process. The sin and sinner are named in the quest for purity and innocence in seeking perfection.

Non-Sense Language

The religious language associated with simplistic binary thinking in risk is captured by repeated mantras for example: 'all accidents can be prevented' see *Figure 5. All Injuries Can Be Prevented*. Such simplistic statements grounded in Hindsight Bias stand in contradiction to all the evidence in human social psychology that understands risk as a complex and a 'Wicked Problem'. The Glossary at Chapter Seven explains the definition and nature of Religion used throughout this book.

Figure 7. All Injuries Can Be Prevented



In the real world of fallible humans, fallible systems, fallible organisations and a world of randomness such language as 'all accidents are preventable' is nonsense. Why would you want to speak such nonsense language to people? What does a language of nonsense do to people who speak it and to the people who have to listen to it? It is strange that many people reject the religious idea of an immutable omniscient god yet attribute religious infallibility to humans in tackling risk?

In the risk industry blinded by Hindsight Bias and Fundamental Attribution Error these such nonsense statements are an indictment of an industry that lacks the ability to think critically. Indeed, Hallinan in *Why We Make Mistakes* (2009) demonstrates that mistakes are essential to human fallibility and learning. The paradox is that without human mistakes we would not have any of many discoveries today such as x-rays, anesthesia and computers that save lives. Unless the risk industry learns to grapple with the paradox and wickedity of risk it is likely through STEM-only to become more deeply religious.

Moreover, the very nature of tackling risk is understanding that in fallibility humans cannot know everything or the future. If we accept risk as real then we must accept fallibility as real and uncertainty as a fact of life. Risk only makes sense if we accept that humans are not omniscient, they cannot know the future and so incidents, error and accidents will happen. This doesn't mean one endorses a fatalistic view, we don't have to speak binary black and white nonsense to people. Mature people know how to be silent about nonsense language. Children speak about the reality of Santa Clause and the Easter bunny but when they mature and grow up they stop speaking nonsense.

Epistemic Akrasia and Fallibility

Epistemic akrasia occurs when an individual believes something against their better judgment. If one judges action A to be the best course of action, why would one do anything other than A? This is a rationalist argument that misunderstands fallibility. Socrates argued that akrasia cannot exist. A person, according to Socrates, never chooses to act poorly or against better judgment; actions that go against what is best are only a product of being ignorant of facts or knowledge of what is best or good. This belief continues in the risk industry as the legacy of enlightenment rationalism.

The Struggle of Paul with Fallibility

The word 'akrasia' occurs twice in the Koine Greek New Testament. In Matthew 23:25 Jesus uses it to describe hypocritical religious leaders, translated as 'self-indulgence' in several translations, including the English Standard version. Paul the Apostle also gives the threat of temptation through akrasia as a reason for a husband and wife to not deprive each other of sex (1 Corinthians 7:5). In another passage (Rom. 7:15–25) Paul, without actually using the term akrasia, seems to reference the same psychological phenomenon in discussing the internal conflict between, on the one hand, 'the law of God', which he equates with 'the law of my mind'; and 'another law in my members', identified with 'the flesh, the law of sin'. Paul says: 'For the good that I would do, I do not; but the evil which I would not, that I do'. (v.19)

In many ways humans in their rational and cognitive state are profoundly out of tune with their unconscious self, their own psyche. It was Weick who said 'how do I know what I believe until I see what I do? How do I know what I think until I hear what I say?' (Weick, 1979, p. 5) This is the challenge of enactment and the mystery of the human unconscious. Acknowledgement of the mystery of the human unconscious is missing from risk industry discourse yet is critical in understanding and defining fallibility.

The Moment of Conversion

No one knows what constitutes the moment of conversion, any conversion not just religious conversion. We have all made unexplained leaps of faith and experienced radical change seemingly without explanation. The psychology of conversion is one of the least studied and understood phenomena in human experience. I have experienced this on several occasions and cannot explain why I made such a



decision. Polanyi (1966) might say it is the nature of intuition or implicit knowing. I think the reality is I am sometimes unknown to my unconscious.

I remember going to various church meetings and being determined not to be influenced by the rhetoric or emotions that I knew were in operation and despite all the cognitive determination being swayed into a trajectory I didn't want. I can remember going to a church camp in particular and finding myself in emotional turmoil either through exhaustion or through personal conflict but making a leap of faith that seemingly came from nowhere.

I have written about the unconscious in previous books on risk emphasising the importance of considering how our individual unconscious and the collective unconscious influence decisions making. Whilst we know that Cognitive Dissonance is a critical part of conversion we really don't know why our lives can sometimes turn on a pinhead and we can venture into an entirely new direction and trajectory, sometimes against the very things we have said previously we wouldn't do. In the Greek New Testament this is known as 'metanoia', a complete turning around.

One thing that is important in understanding and defining fallibility is knowing that there is much we don't even know about ourselves.

Actions in 'Bad Faith'

Dan Petersen (1950) considered one of the gurus of the risk industry, writes at the start of Chapter 8 in *Human-Error Reduction and Safety Management* (p. 109):

The decision to err, or to work unsafely, is often a very logical choice that is made either consciously or unconsciously by the worker.

Of course this is a non-sense, many actions we take don't involve rational choice and/or rationality, nor do we have rational control over unconscious decisions.

It is remarkable how the risk industry attributes rationality to unconscious human decision making in its quest to find a reason for 'human error'. If one is unconscious or takes an action unconsciously then by definition one will not be 'conscious' of one's thinking or motivations for that action.

An action taken unconsciously most certainly cannot be described as a 'rational' choice but rather a non-rational (arational) decision. And most certainly in disagreement with Ariely (2008) *Predictably Irrational* such an action cannot be considered an irrational decision. As Sartre (*Anti-Semite and a Jew, An Exploration of the Etiology of Hate*, 1944, p.12) stated emphatically: 'How can anyone chose to reason falsely?'

Sartre called the unconscious action towards dehumanization due to social influences 'bad faith'. Bad faith addresses many assumptions constructed in the Augustinian notion of fallibility as 'defilement'. However, the Social Psychology of Risk (SPoR) helps understand how non-rational forces affect and influence decision making.

In *Being and Nothingness* (1941) Sartre defined 'bad faith' as: 'hiding the truth from oneself'. We all know just how common this is, 'bad faith' often surfaces in denial and self-delusion. Sometimes a good fantasy is easier to sustain than the pain of the truth.

So, if one acts under the pressure of political conformance in obedience to the Nazis, in what way is one 'responsible' for ones' actions? This was one of the powerful questions that drove the foundations for study in Social Psychology following WW2. If one acts under self-deception in automaticity to what extent can one be ethically or forensically responsible? If one has been brought up to be sadistic, fundamentalist or 'primed' to act in 'bad faith', like many of the children I worked with in youth detention (see *Risk Makes Sense*, 2012, p.24ff) in what way are they responsible for their non-rational actions? To what extent is the person 'conditioned' by religious indoctrination rationally 'responsible' for their actions? This is not to dismiss the act of terrorism but

rather to highlight the challenge of understanding the dialectic between conscious and unconscious action. This is something the courts deliberate on when crimes are committed in 'bad faith'. Often, bad faith is described in the press as a mental health condition despite having no formal diagnosis.

At the start of the next Chapter Petersen (p.125) states:

The second type of decision to err is the unconscious decision; the worker decides unconsciously that it makes more sense to operate unsafely than safely.

Again what strange logic. How does an unconscious course of action equate to a rational thinking decision? How can this unconscious action be described as 'sensemaking'? Who 'decides' they want to operate unsafely? The very definition of an 'accident' assumes there was no rational 'decision'.

This whole construct by Petersen and much of what is taught in accident causation in curricula on risk ignores what is known about the nature of the unconscious, heuristics and automaticity. How can a person in an unconscious state be responsible for a 'conscious' decision?

Most human decision making often operates in the arational space, based on heuristics which Gigerenzer calls 'fast and efficient thinking' or, by automaticity due to social arrangements. It is through heuristics and automaticity that fallible humans are able to undertake actions quickly 'without thinking'. The process of how the human mind works in three speeds is explained in the *One Brain Three Minds* concept introduced in the first book in this: *Risk Makes Sense, Human Judgment and Risk* (2012). The One Brain Three Minds concept is explained on a video here: <https://vimeo.com/106770292>

We want people to make decisions with heuristics as this makes them fast and efficient (Gigerenzer 1999, *Simple Heuristics That Make Us Smart*). The world is a complex place and we couldn't function effectively if we had to think rationally and slowly about everything we had to do. Most of the time we tackle risk and live effectively in the world without thinking. For example, the 'fight and flight' response is a necessary heuristic designed to keep us safe. Similarly, the heuristics of Attribution and Recency Effect enable fallible humans to keep safe. Unfortunately, the same skills required to look for patterns in behavior to make predictions in risk are also the same skills that lead to misattribution and a number of distortion 'effects' for example, the 'Hot Hand' Fallacy (https://en.wikipedia.org/wiki/Hot-hand_fallacy). This is the ambiguity and paradox of being a fallible and mortal human. For every heuristic that keeps us functioning efficiently that makes us fast and efficient, there is an equal and opposite down side that creates reciprocal vulnerabilities and mistakes. This is why the sayings 'safety is a choice you make' or 'all accidents are preventable' are nonsense. The assumption that people tackle risk in some kind of slow rational decision making process is simply crazy and is contradicted by all the evidence.

Don't we wish that actions were easy to punish under the naive definition as suggested by Petersen. How easy life would be if all mistakes were the outcome of a rational decision. How neat and tidy to sit with Reason's 'Acts and Violations' and think we have some definitive model of human error (<http://www.tandfonline.com/doi/pdf/10.1080/00140139508925221>). How easy to hide behind the language of human error and in Hindsight Bias cast judgment under the simplistic mantra of 'all accidents are preventable'. How much more challenging to actually tackle the problem of 'bad faith' and investigate incidents that actually may have no rational cause.

Embodied Persons

When we speak of embodiment we infer something tangible and material that captures the essence of something. So we can say, 'Nelson Mandela embodies the essence of forgiveness' or 'Ebenezer Scrooge embodies the nature of greed'. When we accept the realities of being embodied we also accept the vulnerabilities of being human. The story of a baby in a feed trough in a cave at the back of a pub embodies the symbols/myths of humility and love for Christians. It wouldn't quite work with a five star apartment overlooking the harbour.

Unfortunately, the rejection of the human body is an all too common modern phenomena. The seduction of body sculpting, body improvements, nips and tucks, eating disorders and body image rejection are all evidence of the

denial of fallibility and the quest for being more than human. Benner (2016) states: 'any religion or spirituality that seeks to make us less than, more than, or other than human is dangerous'.

In Our Bodies

I have several friends who have been through unbelievable suffering with body rejection. One was a friend with a daughter with Bulimia and another friend with a son who was addicted to substances.

Eric's daughter Amy was terribly ill. She was so thin and unwell she was admitted against her will to a special ward in the only hospital in Australia for people with eating disorders. Amy's potassium was so low that she was at risk of a heart attack at the age of 19. Intensive counselling, medication and many attempts at therapy had achieved little. This was the last costly strategy before Amy would be dead.

Eric (the father) quit his executive job and Amy became his full time 24 hour project to support her and keep her alive. Amy was the middle of three daughters and the stress this challenge put on the family was unbelievable. If you were black and white, judgmental or had some opinion about Bulimia around Eric you would last no longer than 3 seconds and Eric would tell you very clearly what such nonsense language and discourse deserved. Eric quickly had become an expert in the disease and the last thing he needed was some unhelpful know-it-all who had some idea about zero harm, 'safety is a choice you make' or 'all injuries are preventable' to open their mouths and regurgitate simplistic nonsense gleaned from a Google search. What Eric did know is that the mind, heart and gut are a complex integrated whole and that Bulimia required holistic wise and mature approaches to risk not dumb down binary nonsense.

Tom was the second son of Therese and William who learned after a road accident that Tom was addicted to a number of substances including a range of narcotics. Tom had lost his job and began to pay for his addictions in petty crime and soon was confronted with the prospect of gaol time. Therese and William were at their wits end, Tom had tried several times previously to break the cycle of addiction and was ready to try a radical new program with his parents support.

Any reading of Gabor Mate (2010, *In the Realm of The Hungry Ghost*) or Johann Hari (*Chasing the Scream*) should empty one of any temptation to binary judgmental nonsense language about choice. Indeed, the search to transcend the pain of living is something the medical fraternity still don't understand. No one knows why one person is addicted to one thing and others not, neither do we know why one thing is addictive for one person and not another, even in the same family or for twins. We simply don't know what converts a person in or out of addiction.

The quest to be non-human or trans-human (<https://en.wikipedia.org/wiki/Transhumanism>) is testimony to misunderstanding what it is to be fallible and human. The rejection of embodiment is the rejection of risk. The rejection of embodiment is the rejection of life and learning.

Embodiment is the stuff of life and living. It brings with it the joy of learning and the experience of harm in trial and error. It fills living with the richness of discovery and existential joy of maturation.

In the Christmas story we see the approval of embodiment in the Christian story. The story of a god embodied in a child is the endorsement of embodiment. The theology of rejection of embodiment and fallibility proposes that the purpose of being human is to become infallible not fully human. This is what is promoted by the language and discourse of zero.

The rejection of embodiment, learning and associated harm of not knowing is a delusion. The quest for infallibility and to become all knowing dehumanizes what it means to be human. The ideology of zero harm is on such a trajectory of delusion.

The body is so easily harmed physically, psychologically and socially and so if zero harm is the goal then all harm must be rejected. If the goal is learning then harm must be accepted. Unfortunately, the zero harm delusion is hazardous for our well-being and can only be sustained through simplistic binary constructs.

Skiing

I remember one Christmas we had a water skiing holiday on the Murray River. Camping, festivities and skiing, what fun. The first sensation of cruising on one ski on 'the glass' is fantastic. After a huge session on the river we would sit down for a well earned drink and my brother would often say 'this is living'. This is all good until a nasty fall and that sometimes happened. And would you stop such an adventure, hell no!

We all know that harm is the trade-off for living with fallibility and uncertainty. We all know that in the real world that the fear of harm is the fear of living. We can only learn the limits of our bodies in accepting the limits of our bodies.

The nonsense talk of perfection fuels mental health disorders ([https://en.wikipedia.org/wiki/Perfectionism_\(psychology\)](https://en.wikipedia.org/wiki/Perfectionism_(psychology))).

What zero ideology doesn't understand is that the rejection of zero discourse and ideology is not the desire for harm and error. What zero ideology doesn't know is that the semantics of zero primes the unconscious for brutalism and perfection. Such language draws humans away from empathy and alignment with being human with other humans. When we see humanity and fallibility as 'defiled' (Douglas - http://www.bc.edu/bc_org/avp/cas/his/schloesser/HS041-042/fall/w04/resources/DOUGLAS_Purity-Danger.pdf, https://monoskop.org/images/1/1d/Douglas_Mary_Risk_and_Blame_Essays_in_Cultural_Theory_1994.pdf) we truly shape a religious worldview for blame, superiority and the rejection of embodiment.

Pelagianism, Antonomianism and Nestorianism

The language of the Bradley Curve demonstrates the use of religious language in the risk industry. This is because the industry is preoccupied with conformity/non-conformity in saving lives. When one is audited and gets a non-conformance it has to be rectified. When one's identity is about 'saving lives' it is easy to see the drift into religious talk associated with defilement and heresy. The binary quest in search for objectivity in objects and certainty in dogmatism is the black and white either/or need for discrimination between the conformers and non-conformers. The archetype of Risk requires the elimination of uncertainty and equivocality in a body of knowledge that is secure, known and not moving. It is in the closed parameters of STEM-only knowledge we observe a deepening drift into religiosity because STEM and positivism has defined all poetics as primitive nonsense.

When one has closed out spirituality, religion and theology from a body of knowledge then one's own drift into such knowledge cannot be known to oneself.

Being able to parcel people and their non-conformance as 'heresy' into named groups or to claim agnosticism as a political defence (<https://safetyrisk.net/sia-has-a-bet-each-way-on-zero/>) for not knowing about select 'doctrines' such as zero harm, is a requirement for the 'will to power' over others. How strange to prioritise a body of knowledge (<http://www.ohsbok.org.au/download-the-body-of-knowledge/>) and then run to agnosticism as a political defence. However, this story best serves as an illustration of how organisations in the risk industry naturally gravitate to religious language in political discourse.

Similarly the creation of laws and rules to marginalise others or to hurt others is part of this quest. We hear this often in masked claims of care in brutalist politics, that harms others in the name of zero because they chose to be engage in risk.

Declaring a doctrine or person as heretical is about political marginalisation. In order to help in an understanding the nature of heresy I will introduce you to three famous heresies that sit on the boundaries of discussions within the topic of this book. These are:

Pelagianism

Pelagius was a British monk who lived in the fourth century who denied the theodicy of Original Sin. He stated that the belief in Original Sin didn't stain human nature as proposed by the church as his time. He claimed that human will was sufficient to live a sinless life. He rejected the Augustinian definition of grace and claimed that the doctrine of Original Sin was Manichaeism, a binary construct about good/evil and light/darkness. As such Pelagius rejected the doctrine of infant baptism. The authorities of the church declared Pelagianism a heresy through the the Council of Cathage in 418 BC. Whilst the debate was about freewill vs determinism it was much more about sustaining traditional church power and orthodoxy. Some of the arguments contained in this book could easily be labelled 'Pelagian' just as the binary worldview wishes to eradicate any mediation between free will and determinism.

Antinomianism

The emphasis on law or grace in a binary focus has been a major conflict in the church for 1900 years. The Greek word for law is 'nomos' and hence Antinomianism indicates one who devalues the law in favour of grace ie, anti-nomos. Antinomianism was coined by Martin Luther during the Reformation which was later attacked by Wesley and is often understood as devaluing the level of 'works' a person must make in order to be 'saved'. The Antinomians emphasises grace and argue that no amount of work can save anyone. Calvinism was been attacked for being Antinomian by Arminians believing salvation by free will and choice. So the binary tradition continues in church history. The five points of Calvinism are known through the acronym TULIP:

- Total Depravity (also known as Total Inability and Original Sin)
- Unconditional Election
- Limited Atonement (also known as Particular Atonement)
- Irresistible Grace
- Perseverance of the Saints (also known as Once Saved Always Saved)

Again the theology of this book could easily be labelled Antinomian.

Nestorianism

Nestorius was a teacher in the 4th century who rejected the doctrine of the *theotokos* (the god bearer). This doctrine was established by Tetullian in the 3rd century to emphasise that Mary had to be perfect to be the bearer of God. The argument was binary yet again about whether Christ could be both fully god and fully man. The debate enshewed about whether Christ has one nature or two natures. Later, wars would eventuate across Europe in debate about the nature of Christ over a single vowel and the difference between *Homoiousianism* (Christ was the same as God) and *Homoeanism* (Christ was similar to God). The Nestorian controversy was all about the attribution of perfection to a human and the problem of fallibility being desired by God.

What do we learn from these heresies?

What we learn from these heresies and many other debates about orthodoxy is the seduction of binary thinking into polar extremes and binary opposition. We also learn the way Power is used to give authority to political will. The same polarities are attributed to the zero debate as we will observe in Chapter Three. As the orthodoxy of the risk industry becomes more fused to zero ideology as religious doctrine the debate will move to the emotive and territorial assertions about authority and Power.

The Quest for Transcendence

From the moment humans could write on the walls of caves, dance around a fire, sing songs to the stars and sculpt shapes out of clay, they have expressed an interest in the dialectic between fallible reality and transcendence. Whilst the modes of expression have changed over time from, DaVinci's Madonna and Child and Michelangelo's Sistine Chapel to, The Matrix and the dances of Hillson, the quest for transcendence from fallibility and death has been a preoccupation and dynamic of human voice over time.

The Temple of Doom

Whenever I travel I am always drawn to the philosophy of architecture and search for transcendence in design. It doesn't matter whether it is a cenotaph in a country town, a unique chapel in a remote town or the wonder of Angkor Wat, I get fascinated with the human expression and search for transcendence. Similarly, the semiotics of movies, art and music speak volumes about how humans struggle with fallibility, love and hope.

I have travelled a few times with my adult children once with my daughter to Spain and another with my son to Belgium. It didn't take long for my daughter to get sick of looking at Cathedrals and art museums and my son to get sick of looking at grave memorials and Cathedrals before they started to ask to split up so my daughter could shop for shoes and my son could taste another Belgian beer. My loves are not their loves.

When I was in Cambodia I was overcome by the wonder and enormity of the Khmer Empire (9th to 13th century) and the infrastructure, architecture, embodied philosophy and quest for transcendence in so many temples, ancient cities and sculptures. The size and scope of such expression is astounding, with much of Angkor's secrets yet to be discovered (<https://sydney.edu.au/news-opinion/news/2015/12/09/new-discoveries-redefine-angkor-wat-s-history.html>).

One of the interesting visits was to Ta Prohm where the convergence of the secular and religious is clear. Ta Prohm was the site for the filming of *Indiana Jones and The Temple of Doom* and *Lara Croft Tomb Raider*, you see view an overview here: <http://www.lovetheepics.com/2012/11/lara-crofts-tomb-raider-indiana-jones-temple-of-doom-ancient-angkor-pics/>

As I stood in Ta Prohm I could visualise both movies indeed, it was a long cue to get a photo in front of the famous tree overgrowing the temple that Lara Croft swings on and about in the movie. Here was the blend of two approaches to transcendence - the religious and the popular secular culture of movies. Ostwalt (2012) and Lyden's (2003) studies demonstrate this convergence with extensive evidence.

Another temple I visited was Bayon, complete with cranes in restoration work where there was also a convergence of semiotics with the risk industry in technology, consumerist tourism - the new religion and the secularisation of the old religion. Bayon means 'Victory Mountain'. In typical tourist style and for payment, I enacted the prayer gesture on the roof amongst the 200 large sculpted faces of Lokeshvara with costumed actors and my friend Tom. See *Figure 8. Praying Gesture at Bayon Temple*.

Here we see in the photo, the commodification of the religious and the religious commodification of the empire.



Figure 8. Praying Gesture at Bayon Temple.



Secular and Religious Convergence

One of the assumptions of Dekker's *The End of Heaven* (2017) is that we live in a Scientific Age that cannot explain suffering and disasters but that the doubt of positivism is more sensible than the doubts of religion. Perhaps Dekker's assumption makes sense from the time of the Industrial Revolution to the 1950s. However, following the work of Science Deconstructionists like Kuhn, Lakatos, Feyerabend, Phenomenologists like Heidegger and Ricoeur, the work of Deconstructionists like Derrida and Baudrillard, Postmodernists like Foucault and Lyotard, Poststructuralists like Deleuze and Kristeva and, Semioticians like Pierce and Lotman, we have been given a revelation that shows an amazing emergence and blending between the sacred and secular. We are also experiencing convergences between text and semiotics with the emergence of emojis taking place of importance as new hieroglyphics. Further see Danesi, (2017) *The Semiotics of Emoji, The Rise of Visual language in the Age of the Internet*.

In the past the distinction between the sacred and secular was clearly defined. There is no better representation of this than at the door of St Patrick's Cathedral in Ballarat, Victoria. Here we see on the door to enter the church the clear distinction between the Pope on the left and the King on the right, separated by the common worshiper entering the 'Lord's House'. See further *Figure 9. St Patrick's Ballarat*.

Figure 9. St Patrick’s Ballarat.



With the emergence of new expressions of transcendence in both the church and in the risk industry such distinctions between the sacred and secular are becoming more difficult to determine. Similarly as text merges into graphics and intra-semiotics it will become more difficult to make clear definition between languages as we have been able to do in the past. The blurring of boundaries makes for Wicked Problems.

The Enemy of Secular Humanism

I remember in the 1970s as I attended University for the first time there was a major reaction by the religious right and fundamentalist Christians to the growing influence of what was termed 'Secular Humanism'. Living in Adelaide at the time and under the influence of the Whitlam and Dunstan governments, Christians became anxious about changes in art, music, the Vietnam Moratorium Movement, hippies, love power, Woodstock/Sunbury and a host of perceived attacks on conservative Christianity.

As a result of much fear of the enemy articulated as Secular Humanism the conservative Christians began to found their own schools growing each year at 200% for 8 years to become the second largest private school system in Australia. I studied this transition as a case study in the secular/religious divide in 1993-1996 as my PhD Thesis.

At the same time in the 1970s other more radical Protestant sections of fundamentalist Christianity embraced the secular and merged the secular into the nature of their Christianity. This was most prominent in the Jesus Movement that included all the elements of the hippie movement excluding the sex and drugs and also in Pentecostalism which formed the foundations of what we know today as Hillsong Church.

The growth of the Hillsong Church and Fundamentalist Christian Schools from the 1970s to the 1990s happened whilst the so called 'scientific world' was oblivious to the power of the merging of the secular into religion and the adoption of religion into the secular risk industry. You can read about the growth of these schools here: <https://www.aare.edu.au/publications-database.php/1155/the-development-of-themelic-christian-schools-in-australia> and here: <http://www.abc.net.au/religion/articles/2010/10/01/3027021.htm>. As at 1996 these schools numbered more than 300 and had a student population in excess of 60,000 students. As of 2017 the Christian Schools movement is a significant lobby group within conservative politics with numerous Christian universities delivering teacher education, nursing, theology, arts and social work degrees. For example: Christian Heritage College, Tabor and Hillsong College.

A study of Hillsong is the final case study in this chapter and is used to illustrate the convergence of the sacred with the secular. This study helps set the context for later discussion about the emergence of the risk industry into sacred spaces.

Hillsong and The Secularization of Religion

Hillsong Church is one of the most successful religious organisations in Australia if one judges and measures by wealth, business and population. Hillsong is not semiotically like traditional church and perhaps this explains its attraction. There is no negative guilt-centred discourse in Hillsong but a focus on empowerment, financial success, grace, positive affirmation, faith, career success, prosperity and community. The primary *raison d'être* for Hillsong is evangelism and saving lives.

Hillsong is a mega-church in the Pentecostal Protestant tradition. The church was founded in 1983, originally called Hills Christian Life Centre in Baulkham Hills, New South Wales, by Brian Houston and his wife Bobbie. According to Hillsong statistics over 100,000 people attend a Hillsong Church (or affiliated church) each Sunday.

To attend a Hillsong service one could be confused for being at a pop concert. The multimedia, music, sound and lighting is of the highest quality and central to Hillsong 'contemporary' worship. The largest Hillsong facility at Baulkham Hills in Sydney was opened in 2002 by the Prime Minister John Howard.

Hillsong are masters at bringing into the life of the church all the secular effectiveness of business, management theory, success theory and corporate ideology.

Hillsong ministries include Hillsong Music, Hillsong Kids, Hillsong Sisterhood, Hillsong Men, Hillsong Conference, Hillsong CityCare, Hillsong Leadership College, Hillsong TV, Hillsong Performing Arts Academy, and Hillsong Health Center. Hillsong have churches in Moscow, Tel Aviv and most major cities in the world.

In many ways Hillsong exemplifies an embrace with all that is secular. Many of the signs and symbols of traditional Christianity are simply not present at Hillsong venues. Hillsong operates in multi-purpose auditoriums that have more in common with rock concerts than church. The music is modern, rhythmic and loud. The atmosphere is exciting, emotional and attractive. The audience is young, vibrant and enthusiastic.

Whilst the language is clearly evangelical and focused on 'the gospel of Jesus Christ' the discourse is profoundly secular and divorced from traditional church myths and symbols associated with Christianity. The sermons by Brian Houston are practical and focus on the challenges of living in the world in fallibility. Whilst the message is often about the limitations of life Hillsong focuses on transcending these limitations with a great deal of emphasis on 'the Spirit'.

How strange then to see the church becoming secular and the risk industry becoming religious. One sees the religious as a secular approach to saving lives and the other sees the secular as a religious approach to saving lives. When an industry maintains nonsense language about 'all accidents are preventable', 'safety is a choice you make' and Cardinal Rules then it can only move on a trajectory that is religious. Such a trajectory can only lead to a discourse of faith and belief in infallibility.

Workshop Questions

1. What is your understanding of fallibility?
2. Of all the words listed in this chapter, which ones do you most attribute to fallibility and infallibility?
3. Do you understand the language of zero to be about an absolute? About perfection?
4. Are you familiar with the Bradley Curve? What do you think is its symbolic message?
5. Have a look around your workplace and see if you can find religious language that is used to explain risk.
6. Take a visit to an art gallery or a cathedral and observe how notions of fallibility and infallibility are symbolised.

Transition

We observe the desire to escape the vulnerabilities and limits of human fallibility in the transhumanism movement. Transhumanism desires to one day move beyond the constraints of fallibility where humans will one day attain some form of infallibility. But can there be learning or discovery in perfection? If one is infallible can there be anything to learn indeed, can the infallible have a relationship with anything infallible? Can the Perfect seek relationship with the imperfect? What does the absolute of zero/infinity offer for humans? Is there not a need for paradox and ambiguity in human being in order to learn, live and love?



CHAPTER 2



The Desire for Infallibility

Anything that compromises our ability to see things as they truly are reduces our capacity to engage life in a vital, integral, and healthy manner - David Benner, Human Being and Becoming

Human nature abhors a lack of predictability and the absence of meaning. As a consequence, we tend to 'see' order where there is none and we spot meaningful patterns where only the vagaries of chance are operating. - Thomas Gilovich, How We Know What Isn't So, The Fallibility of Human Reason in Everyday Life

For just as completeness is always imperfect, so perfection is always incomplete, and therefore represents a final state which is hopelessly static. - Carl Jung, Answer to Job.

The Desire for Infallibility

The short and general definition of fallibility is: to be deceived or prone to mistake. The real deceit of fallibility is the delusional wish for infallibility. The denial of fallibility and the aspiration to perfection are defined in the DSMV 5 as a mental health condition. For the purposes of the remaining discussion of this book fallibility is defined as: vulnerability, finiteness and imperfection. It is important to denote that fallibility does not imply sin, defilement or corruption.

The myth/symbol of the Adam and Eve narrative is associated with the concept of 'the fall'. It has been assumed by early theologians to be a fall from paradise or fall from perfection but this is not the intent of the myth. Indeed, the story is about the desire for infallibility and how such a desire alienates humans from themselves and community/relationship. It is in the construction of control, will to power and legalism that we mask fallibility and in the words of the creation narrative - seek to be as gods. The Glossary in Chapter 7 will help further regarding definitions of symbol, semiotics, myth and religion.

The desire for infallibility is about masking the realities of fallibility. This is sometimes attempted by the accumulation of material, consumerist drive, individualist desires, creation of laws and possession of assets. The desire for infallibility is what Ernest Becker (1973) calls *The Denial of Death*. What often happens in seeking to mask or insulate from the reality of fallibility results in the futility of despair, anxiety, depression and alienation. We discover after we have more possessions and filled life with busyness that we are just as lonely and alienated but with more things. The desire for infallibility in material accumulation usually brings loneliness, alienation from self and others. This is because of what one has to do in pursuit of such goals.

Gabor Mate (2010) explores the problem of masking life in *In The Realm of the Hungry Ghosts*. Mate looks at the problems of addiction in particular, substance addictions and shows how substance abuse is about the rejection of reality or the inability to face reality. Substance abuse and alcoholism are another way people seek to mask the human condition. Often it is the ordinary and everyday that people seek to avoid. We are told the media and social media that we deserve more than what is 'ordinary' and everyday. We were told by Bowie that 'we can be heros for ever and ever' just as the risk industry deifies heros in its discourse.

It seems like necessity and fallibility are framed in Western culture as a 'burden', something we should escape rather than where we can be fulfilled and find meaning. The message is that the life of necessity, paradox and fallibility is not where we can find human 'being' and 'becoming'. It is as if the population is collectively seduced by the Dunning-Kruger Effect, our society would prefer a grand delusion of infallibility as opposed to finding meaning in being fallible.

The Idealization of Humans

The emergence of the Harvey Weinstein affair (https://en.wikipedia.org/wiki/Harvey_Weinstein_sexual_abuse_allegations) draws out the problem of idealization and the delusion of perfection. We all know that as children we believe our parents are perfect until we mature and grow up. We witness all the time the destructive media preoccupation with the perfect body, perfect weight and perfect image (<http://theconversation.com/social-media-the-bikini-bridge-and-the-viral-contagion-of-body-ideals-87262>). We look at narratives projected at us about the perfect family or perfect life and get seduced to think that such things exist. This is known in social psychology as the 'Rose-Coloured Glasses Effect' and it creates enormous social and psychological problems. It's one thing to see the best in people and quite another to impute perfection on to humans.

The Navajo Indians

The Navajo deliberately weave an imperfection into their rugs (<http://gypsified.com/2012/03/22/thought-deliberate-imperfections/>). This is the place where the spirit moves in and out of the rug. Leonard Cohen sings in his song Anthem: 'Ring the bells that still can ring. Forget your perfect offering. There's a crack, a crack, in everything. That's how the light gets in.'

The message in Cohen's song and the Navajo Rug is that perfection is not the elimination of vulnerability and imperfection but rather the ability to recognize and include imperfection in human 'being'. We need not create anxiety-as-angst as Kierkegaard recognised about 'being' in the world. Humans have nothing to fear from being human, vulnerable and imperfect. The Apostle Paul argued that his 'strength was made perfect in weakness' (1 Cor 12:9) in other words, he was most fully human when he acknowledged and managed his vulnerability. The delusion of infallibility makes it impossible to live in the real world.

Fallibility has never been about fall-ibility as was argued by Augustine in his concoction of Original Sin. The attribution of depravity to human being was further exacerbated by Luther and Calvin. We see this same concoction of depravity in risk industry ideology. There is no natural instinct to harm as argued by the Bradley Curve (<https://safetyrisk.net/safety-curves-and-pyramids/>). Indeed, The Bradley Curve endorses an Augustinian theology of humanity and defines fallibility as 'the fall'. There was no 'fall' from paradise, neither was there any 'fall' from perfection. The idealization of perfection is the denial of human 'being'. Wholeness, not perfection, is the way to becoming fully human.

The reason why everyone was surprised by Weinstein and many others prominent idols 'falling from grace' in is that these people were set up to fail. Idealizing sports stars, movie stars and public figures is simply crazy. Hero worship always involves idealization and disproportionality in the attribution of power. This is why the ideology of the hero, the innocent and the absolute is tied to the mythology, symbolism and ideology of zero. This is why Risk loves hero semiotics and why heroes dominate marketing in the risk industry. Just do a Google search for 'heroes and risk' and it receives 65 million results. It seems the last thing the risk industry wants is

ordinary everyday work in tackling risk. Risk Management doesn't seem content without mythology, magic and superstitions. Apparently the management of risk can only come by from a hero because the hero is perfect. The belief in perfection expected in the doctrine of Zero creates by-products of idealization and perfection blindness. Then when we observe people like Rolf Harris (<http://www.abc.net.au/news/2014-07-01/rolf-harris-timeline-australian-entertainer-falls-from-grace/5518248>) or Don Burke (<http://www.canberratimes.com.au/act-news/canberra-life/sexual-harassment--do-we-need-a-new-taboo-20171128-gzuudt.html>) it gets explained as 'falling from grace' or calls for 'needing a new taboo'?

The richness of being human is in not seeking perfection but learning how to tackle uncertainty, imperfection and living holistically in real life. This doesn't mean that one wants error but rather recognizes that an ideology of delusion undoes the sense of risk. Any binary classification involves distortion-as-simplification as if paradox is bad and ambiguity must be denied. The simple truth is that fallibility makes life rewarding, risk creates learning and human idealization is hiding from reality.

The idealization of the perfect workplace with no injuries, no mistakes, no error with perfect people generating perfect outcomes in a perfect organization is a dangerous delusion. Idealization creates fall-ibility not fallibility. The real meaning of fallibility is that of deceit, the deceit is the self delusion of infallibility.

Idealization is a mechanism of the binary worldview where the light of the hero rescues evil from the clutches of darkness. Star Wars is not real but its mythology/symbols endorse the archetype of the hero and innocence. The Zero myth and archetype is the Star Wars archetype.

The trouble is when Weinstein 'falls' everyone is surprised that he's not infallible. So, when zero is not achieved there needs to be a scapegoat because the perfection dream has been ruined. The scapegoat is of course the animal that takes on the sin of others, the perfect religious archetype for zero discourse. I can't tell you how many people I know in the risk industry who get sacked when something goes wrong.

In the end the binary of zero must have a scapegoat. Suffering and harm must be attributed to the fall-ibility of the human who has been demonized by the perfectionist mantra. The enemy of risk is humans and STEM has the numbers to prove it.

Understanding Myth and Symbol

For those who are familiar with my work and series on risk will know that when the word 'risk', 'safety' or 'security' are capitalised that this indicates such as an Archetype. An archetype represents something that has a force unto itself. The idea comes from C. G. Jung (1968) and indicates how forces outside of us influence and condition belief and behaviour. We speak in such ways when we talk about how the Market or the Economy 'behaves'. We speak of the Market and the Economy in archetypes as if these have force, influence and power outside of our control. Jung called suggested that these focuses operate in the 'collective unconscious'.

So, if we think of Risk, Safety and Security as archetypes we find that people think and do things unconsciously in fear or anxiety as if controlled by something outside of themselves. This was reported recently regarding parents transporting their children to school. Two thirds of all children no longer walk to school in Australia (<http://www.smh.com.au/national/health/twothirds-of-children-driven-to-school-its-not-safe-to-walk-parents-report-in-liveliighter-campaign-survey-20180122-h0m6y2.html>). Walking to school is now considered too dangerous and risky and so more trade-offs and by-products emerge in long term risks in obesity and helicopter parenting. All conditioned by fear.

Myth and symbol are the flip side of the same coin and operate in the unconscious and collective unconscious. Myths and symbol collectively capture things that we unconsciously believe. Myth and symbol reveal deep held beliefs and capture a sense of meaning in themselves. Neither myth nor symbol can be reduced to some quantifiable or measurable unit. Myth and symbols step outside STEM-only discourse and post-enlightenment rationality that considers myth and symbol as 'primitive' modes of thinking. Whenever we find ourselves speaking

of love, life, faith, hope, death, loss or anything that cannot be measured, we transcend the STEM-only paradigm and use metaphor, symbol, poetics and myth to convey meaning.

Symbols and myths are structures of signification because every symbol and myth is an expression that communicates meaning. This is why the Adam and Eve myth can be given so many meanings, many of which reinforce binary ontologies of judgment, guilt, shame and defilement. The desire for innocence, paradise and infallibility is attributed to the Adam and Eve myth. It is also in symbol and myth that the quest for infallibility is presented. This is why the risk industry uses its own myths, metaphors and symbols of heroics to transcend the day to day realities and paradox of tackling risk. When one uses myth and symbol one tends to move in to religious language and this becomes clear when people in the risk industry speak about matters of life, death and saving lives (soteriology).

Bettelheim (1976) captures the power of myth, metaphor, archetype and symbol beautifully in *The Uses of Enchantment*, a splendid exploration of the significance of fairy tales. Sometimes the myth and symbol that are not true are more significant than the STEM-only search for proofs and facts.

It is in our poetics that we express the greatest yearnings for significance in our living that has no measure. The seduction of the STEM-only narrative wants to kill off the language of myth and symbol that it associates with primitive knowledge and religion. This is why the STEM-only discourse embraces theological language to describe the secular things it can't explain. It then seeks transcendence and hope in technology as the solution to fallibility and the paradox of human 'being'.

Symbols operate on three levels, the:

- Cosmic (defilement)
- Oneric (psychic)
- Poetic (cathartic)

The significance of symbols give rise to speech but we get so frustrated when words cannot describe our tacit/implicit knowledge. Whilst we are speaking beings we experience so much in our being that is inexplicable. Indeed, the search for explanation of the inexplicable, for control and for 'fixing' is a characteristic of the flight from fallibility.

We see this also in cults and fundamentalisms where rituals of control such as ablutions, symbolic washing, burning, removing, burying and covering are created to give penance to stain, defilement and impurity. This includes the demand for scapegoats, chastisement and punishment for the transgression of controls including laws, rules and standards. We can see such religious activities in the risk industry where cathartic power is given to symbols of control such as the Risk Matrix. There has been ample discussion in previous books in the series in risk on the nature of semiotics, semiosis, semantics and the semiosphere.

The Last Judgment

One of the privileges of working with clients in Europe is getting to see art, history and architecture that we don't experience in Australia. In my last trip to Austria I was able to introduce my colleagues Rob Sams and Gabrielle Carlton to the wonders of Hieronymus Bosch (c 1450 – 9 August 1516). Bosch brings together rich symbolism, myth, theology and poetics in expression that I find fascinating. When one looks at his paintings one is amazed and wonders what kind of substances he took to induce hallucinogenics and psychedelics experience. His paintings are full of weird symbology, strange animals and radical ideas like in this triptych illustrated at Figure 10. *The Last Judgment*.

On the left is the Garden of Eden endorsing all of the assumptions of Augustinian theodicy with the fall from paradise and perfection, to the middle panel where Jesus is working out who will go to heaven or hell amidst depictions of mutilation, impalements and torture, and the right panel with the earth on fire

with people burning in eternal torment. The triptych carries the same structure and theme as *The Garden of Earthly Delights* that I was fortunate to see in Madrid at the Museo del Prado. On our last trip to Austria Rob, Gab and I were able to see a Bosch exhibition where his *The Last Judgement* was on display.

Figure 10. Rob and Gab With The Last Judgment



One of the main reasons why the risk industry misunderstands its own religiosity and theological attribution about 'saving lives' is its inability to think semiotically. It seems strange that an industry so consumed with STEM-only knowledge is so religious in its discourse. So much of its language is preoccupied with transcendence of the fallible and an inability to sope with uncertainty.

Seeking Transcendence at the Movies

The most popular films and TV in western culture are all about transcendence of the fallible and religious-like fixation on the infallible. All time Blockbusters like: *Star Wars*, *The Matrix*, *ET*, *Close Encounters of The Thirld Kind*, *Cocoon*, *Lord of The Rings*, *Indiana Jones*, *Avatar*, *Alien*, *Inception*, *Independence Day*, *Terminator*, *The Exocist*, *Buffy*, *Twilight*, *X-Files*, *Game of Thrones* and *Harry Potter* all testify to the attraction of the transcendent and the love of binary black and white thinking.

It is from Ricoeur that we learn that myth/symbol mediate the fundamental challenges of life. No religion can completely express the ultimate awe of the infallible, it must use symbols/myth to point to the transcendent. Religion links what 'is' with what we want to be and in film we see symbolic expressions of the inner unconscious drama of the human psyche.

We see in so many of these movies the hero cycle at work through the symbolism and myths of good/evil, light/darkness and fallible/infallible. It is in the mythology of the archetype of innocence that movies seem to find their greatest investment. When the weak hero risking all finds meaning, purpose and purity in rising above the wicked in triumph we can rest assured in safety.

We can recall moments and symbols from movies as iconic representations of archetypal themes. I will never forget the first time I saw *Raiders of the Lost Ark* and in the closing scene where the Nazis opened the Ark. I can recall how the angels from the Ark emerged and burnt everyone watching except for Indiana and the Marion, who had not transgressed the holiness of the Ark but had kept pure and

innocent of evil. As the angels fused the electrical equipment and burned holes in the powerless soldiers standing looking on, the heads of the main protagonists of evil Dr Belloq and the SS tyrant Deitrich melted and explode in the presence of the wrath of God.

As one of the most popular film series of all time, the Indiana Jones movies invoke many religious symbols and myth, drawing on archetypical motifs of innocence, evil, loss, betrayal, greed, corruption, defilement, adventure, discovery, risk and safety. For Ricoeur fault and blame can only be properly described through mediating agency such a metaphor and symbol. In *Raiders of the Lost Ark* through myth supernatural realities are made natural realities and the film validates an ontological existence to the orthodox concepts of Christian theology.

It is interesting how religious images, symbols and myths have become increasingly irrelevant in western society through popular culture and are more powerfully presented than ever before. This is what Ricoeur calls 'the exegesis of the symbol'.

The application of religious mythology, semantics and symbol to Indiana Jones authenticates the philosophical symbolism of orthodox Christian theology particularly, Original Sin and Penal Substitutionary Atonement. Ricoeur highlights the fact that such a hermeneutic (theory of interpretation) brings the power of myth and symbol to the unconscious, and discloses knowledge and philosophy through emedded symbols and myth.

It is through the myth/symbol that we feel the locus of evil. Ricoeur states (*Fallible Man*, 1965. p. xliii):

The exegesis of these symbols prepares the myths for insertion into man's knowledge of himself. In this way a symbolics of evil is an initial step toward bringing myths nearer to philosophic discourse ... this study is centred on the theme of fallibility: the consitutional weakness that makes fallibility possible.

In this way Ricoeur considered myth and symbol to be both outside of God and humans in origin yet present in both in symbolic effect. The way symbol/myth affect humans is evidence of the human inability to truly know oneself, this is most present in the drive for infallibility.

Fear of Being-in-the-World

One of the valuable contributions of the philosophy of phenomenology is the concept of *Dasein*. *Dasein* is German for 'being-in-the-world' articulated by Martin Heidegger (https://en.wikipedia.org/wiki/Martin_Heidegger).

Phenomenology emerged in opposition to rationalism, reductionism and the mechanistic worldview. Phenomenology asserts that the study of consciousness and metaphysics is foundational to discussions of personhood, consciousness, the unconscious and 'being'. Phenomenology draws attention to the study of how things are interpreted (hermeneutics) and about human 'Being'. The Social Psychology of Risk emerges from this philosophy (<https://safetyrisk.net/man-up-safety/>) as well from the existentialist and critical theory traditions. You can read more about these here: <http://cfs.ku.dk/staff/zahavi-publications/routledge-phenomenology.pdf>. Of course, the ideology of zero comes from the binary rationalist, reductionist and the mechanistic worldview.

The study of ideology, philosophy and ethics ought to be a foundational part of any curricula about risk but of course it is not. This absence of sophistication in the curriculum and, absence of critical thinking sets up Safety as a vacuum for all binary reductionist ideologies. An example of binary mindlessness is the simplistic ideology of zero vision paraded at the World Congress on Safety 2017 (<http://visionzero.global/2017-world-congress-safety-and-health-work>). The natural trajectory of zero ideology is risk aversion and fear-of-the-world.

One philosopher in the phenomenological tradition is Paul Ricoeur (https://en.wikipedia.org/wiki/Paul_Ric%C5%93ur). Ricoeur is most helpful in tackling the issues of suffering, pain, harm and fallibility.

Unfortunately, the binary theologies and assumptions embedded in the dominant schools of risk simply go unchallenged in an immature discipline that doesn't see that philosophy has any part to play in the education of people. This is one of the reasons among many that ensures that Safety is not a profession (<https://safetyrisk.net>).

[net/professional-challenges-for-the-safety-industry/](#)). I remember teaching the Philosophy of Education at University of Canberra twenty five years ago because the teaching profession knows that an understanding of philosophy and ideology is critical to being professional.

Without a foundation of some education in philosophy, the risk industry is open to its current dilemma in endorsing the unethical ideology of zero. Zero embeds an ideology of intolerance and is evidenced in its psychology of absolutes. Neither intolerance nor absolutes can be any part of any Ethic of Risk. Of course the Zero Vision World Congress delivered nothing on an Ethic of Safety. No peak body anywhere has delivered on an Ethic of Risk. Any ethic in the real world of fallible people, fallible systems and fallible world must accept the necessity of tolerance in ethical practice.

One of the key concepts in Phenomenology is the idea of 'thrownness' (<https://en.wikipedia.org/wiki/Thrownness>) that is, the idea that we are 'thrown' into the real world and have to tackle it with a sense of reality. To deny mortality and fallibility is to reject thrownness. A simply audit of the Zero Vision World Congress, the SIA Body of Knowledge SIABoK or Security Risk Management Body of Knowledge (SRMBoK) is evidence the Risk Management industry is all about objects not subjects.

The ethic of *Dasein* (being-in-the-world) is about Care and Presence. Heidegger argued that if we are to be really 'present' in the world then we ought to be 'present' with others in an ethic of care. The reductionist, rationalist and mechanistic worldview which dominates the risk industry simply advocates measurement by numbers and a focus on objects. This is so easily demonstrated in the iconography of the risk industry. Phenomenology argues that Being must be 'acted' into consciousness and be mediated through the triarchic nature of the interpretantas as advocated by Pierce. See further Muller and Brent, (2000) *Pierce, Semiotics and Psychoanalysis*.

Objects and Numbers

I have a friend who rang me up because he couldn't cope with the insane and absurd obsession in his organization with injury and incident rates. The panic and obsession was absurd. This is of course the natural trajectory for an industry seduced by the binary ideology of rationalism, reductionism and zero. This is despite the fact that all the research and every scholar in risk knows that injury rates and counting incidents have no evidential value in the management of risk. Nor is such data of any value in the legal system indeed, the preoccupation with counting is often connected to a lack of Due Diligence as is demonstrated in the Risky Conversations video series:

Diagnosis

<https://vimeo.com/166158437>

Due Diligence

<https://vimeo.com/162493843>

Fear

<https://vimeo.com/166935963>

I had another friend email me recently concerned about language in risk about 'damaging energies'. Amazing how the risk industry comes up with every theory it can to avoid the paradox of fallibility and engaging with people. The ideology of measurement and control is paramount to STEM.

Transhumanism

The human desire to transcend fallibility can be traced back as far as recorded history. Ceremonial fragments of religious writings and archeological records from the Summerians show that kings desired immortality through their burial. We are all familiar with the pyramids and burial rituals of ancient Egyptians. From 2920 BCC there

are records of embalming in preparation for eternity and pyramid designed to propel the King into eternal life. *The Epic of Gilgamesh* tells us that the King sets out to obtain a plant from the bottom of the sea that would give eternal life but it was stolen by a snake before he could eat it. The plant served as a symbol for the Fountain of Youth and the theft symbolized the realities of randomness, fallibility and evil.

The practice of Alchemy has been a philosophical and proto-scientific activity across the world and is present in the oldest records of civilization. Its aim is to purify and perfect certain objects as well as to heal and find the elixir to immortality. The perfection of the human body and soul was the goal of alchemy and belief in full gnosis, knowledge. There were strong links between the religion of gnosticism and alchemy. Alchemy was directed by belief in magic, mythology, symbolism, spiritualism and religion but became the forerunner of chemistry and pharmaceuticals. Some elements of alchemy remain in the New Age movement and in the Jungian tradition of dreams, visions, archetypal forces and psychedelic experience. Further see Hill, S., (2013) *Confrontation with the Unconscious, Jungian Depth Psychology and Psychedelic Experience*. MTP, London. Alchemy has a longstanding philosophical relationship to art, poetics, symbolism and myth.

In 1908 Friedrich Nietzsche wrote his famous doctrine of *der Unbermensch* - the Beyond-man. Nietzsche introduced the Beyond-man in contrast to the other world theology of Christianity. Nietzsche ties the beyond-man symbol to the death of god. The Beyond-man doesn't need the otherness of Christianity but rather can transcend this world through advancing a new form of human being, this is achieved through new values and a eugenic process of selecting a higher biological type.

The word 'transhumanism' first appeared in the writings of Julian Huxley, brother of Aldous Huxley famous for *Brave New World* (1932). Julian wrote in *Religion Without Revelation* (1927):

The human species can, if it wishes, transcend itself - not just sporadically, an individual here in one way, an individual there in another way - but in its entirety, as humanity. We need a name for this new belief. Perhaps *transhumanism* will serve: man remaining man, but transcending himself, by realizing new possibilities of and for his human nature.

In 1962 Robert Ettinger published the book *The Prospect of Immortality* in hope/belief in the effectiveness of cryogenic suspension. We have since learned that cryogenic suspension is a scam but that didn't constrain Ettinger from publishing a later book *Man into Superman* (1972).

The modern movement of transhumanism is associated with artificial intelligence, robotics, nanotechnology, computing intelligence, biotechnology and algorithmic notions of machine learning. The most popular authors in transhumanism are Ray Kurzweil *The Singularity is Near* (2006) and Nick Bostrom *Superintelligence: Paths, Dangers, Strategies* (2014). Futurists like Kurzweil, Bostrom and Elon Musk believe that humans will one day transcend fallibility.

However, there are deep socialpsychological, philosophical and ethical problems with transhumanism. If Kurzweil, Bostrom and Musk are 'thought leaders' where are they leading ethically? Transhumanism is a *technique* (Ellul), the archetype of perfect efficiency. If one has a delusional worldview about fallibility then one might create powerful machines without ethical consciousness with disastrous consequences for humanity. Bostrom has acknowledged this for some time. Bostrom introduced the concept of *existential risk*, stating that the future of transhumanism could annihilate humans. Bostrom founded the World Transhumanist Association in 1998. Fukuyama (2002) identified transhumanism as 'the world's most dangerous idea' (*Our Posthuman Future, Consequences of Biotechnology Revolution* (2002)). For every decision there is a trade-off and by-product, often resulting in an ethical trajectory of dehumanization. Dupuy in *The Origins of Cognitive Science: The Mechanization of Mind* (2009) thinks we must defend humans from the excesses of STEM-only ideology.

So, what has all this to do with fallibility and infallibility? What is wrong with trying to abolish suffering and pain? What is wrong with trying to 'engineer' paradise? How can STEM positivist ideology lead to a human ethical outcome? How can an ideology devoid of an ecological ethic have a trajectory to the humanisation of



fallible people? How can a static world have imagination and discovery? How can there be human life without movement and risk?

The paradox is that human life is a Wicked Problem, risk is a Wicked Problem. The quest eradicate fallibility and vulnerability and the elimination of risk including, the extinguishing of harm, is also the extinguishment of learning and movement. There never was a perfect paradise in The Garden of Eden and the quest for paradise ignores the fundamental ontological contradictions of post-humanist discourse (<https://vimeo.com/144099716>). Indeed, the creation narrative presents an archetypical symbol for understanding human fallibility. There was no 'fall', nor 'original sin' nor moral perfection. According to Walter Brueggeman (1982) in reference to the Original Sin myth states:

No text in Genesis (or likely in the entire Bible) has been more used, interpreted and misunderstood ... This applies to careless, popular theology as well as to the doctrine of the church.

The challenge of Christianity has never been about an escape from earth to heaven or the rejection of fallibility but rather the challenge to live fallible life as fully human in fidelity to each other and the world.

For a scary insight into transhumanism perhaps watch the Netflix series Black Mirror (https://en.wikipedia.org/wiki/Black_Mirror).

No Risk is Acceptable

The binary mindset follows the either/or logic of fundamentalist epistemology. This mindset cannot countenance anything other than yes or no. This is why some in the risk industry argue that no risk is acceptable and to disagree is to endorse harm or recklessness. For the binary mindset there cannot be any tolerable level of risk because this is understood as an endorsement of the possibility of harm. Hence the quest for transhumanism is the quest to eliminate risk.

The idea that risk can be entirely eradicated is nonsense that doesn't understand the nature of human decision making or the paradox of fallibility. Amalberti in *Navigating Safety Necessary Compromises and Trade-Offs - Theory and Practice* (2013) and Taleb in *Antifragile* (2012) show conclusively that the quest for ultra-safety, zero-risk or hyper-safety makes humans less resilient, less skilled, less educated, deskilled, more vulnerable to change and less adaptive. Indeed, Taleb and Amalberti demonstrate that the trajectory of such a quest for risk elimination creates new problems and ambiguities that mitigate against the very goals of ultra-safety. Amalberti (2001, p. 110) states:

This common sense approach proved to be effective for decades, but is now beginning to lose relevance when optimising the safety of systems operating on the verge of total safety (Amalberti, 1997). This holds especially true for today's ultra- safe macro-technical systems such as the nuclear industry, civil aviation or the European railroad system. The safety of these systems becomes asymptotic around a mythical frontier, placed somewhere around 5×10^{-7} risks of disastrous accident per safety unit in the system. As of today, no man-machine system has ever crossed this frontier; in fact, solutions now designed tend to have devious effects when systems border total safety.

What bothers the binary mindset is the notion of compromise or satisficing. The quest for no harm must be optimal and absolute. The binary logic is that if one compromises and accepts a level of risk tolerability one must accept the possible outcome that people will be harmed at work and this must be intolerable. What is more, the binary mindset states that any acceptance of tolerable risk or the sanctioning of harm is unethical because it approves harm. This mindset is known as: 'the zero risk bias' and is discussed here: https://en.wikipedia.org/wiki/Zero-risk_bias.

Tim Gill demonstrates how the zero risk mindset has harmed the development of young children: <https://www.theguardian.com/commentisfree/2011/jul/03/end-zero-risk-childhood>

Gigerenzer in *Rationality from Mortals, How People Cope with Uncertainty* (2008) states that fallibility can only ever 'satisfice' when it comes to risk and can never optimise. In other words when time, space and energy runs out

humans have to settle for what can be done satisfactorily and then get on with life. This is the principle behind the notion of ALARP (As Low As Reasonably Practicable).

Whilst we know that ALARP was meant to signify a reductionist process what happens when humans repeat processes is that they turn repetitive processes into heuristics to become more efficient and make tasks quicker. This is also the process behind the heuristic of 'tick and flick'. Developing heuristics is one of the paradoxical processes of fallibility. Every heuristic has an upside and a downside depending on the context.

The optimisation of time allocated to: risk analysis, data collection, reflection, consideration of all alternatives and testing the surety of systems is impossible for fallible humans. Unfortunately, the absolutists/fundamentalists won't like the idea of satificing or compromise, there can only ever be the quest for Utopia. All else is considered unethical. Unfortunately for the fundamentalists there is no such thing as human omnipotence and so we have to live with heuristics, satificing and dialectic in doing our best to tackle risk. The elimination of risk is also the elimination of resilience, adaptability, flexibility and learning.

Is Harm and Suffering Evil?

Is fallibility and mortality wrong? Is harm the enemy of risk? Are all accidents preventable? Are mistakes bad? Is it wrong to be human? Is risk essential to learning? Can people learn without risk? Is 'trial and error' a problem? What does it mean to be human? What is personhood? And what creates an educated person? Is it wrong to suffer? Why do we suffer? Is the suffering the trade-off for fallibility and learning? Is movement and process essential for learning?

All of these questions and many similar, are challenges one cannot consider without the language, thinking, symbols, myth and hermeneutic of metaphysics and theology. These questions require a hermeneutic (theory of interpretation) that can speak about being (phenomenology and ontology) and about transcendence (non-material existence).

Disciplines that are materialist-pragmatist in orientation like STEM don't have a hermeneutic or language to consider such metaphysical questions nor is it something STEM practices or has the language to explore. This is why when the risk industry worldview seeks answers to these metaphysical questions it ends up talking about matters of faith, transhumanism and the symbolism of zero. Ah, we will be perfect one day.

The study of hermeneutics and transcendence has a strong tradition in the interpretation of biblical, wisdom and philosophical texts. Wikipedia states (<https://en.wikipedia.org/wiki/Hermeneutics>):

Modern hermeneutics includes both verbal and non-verbal communication as well as semiotics, presuppositions, and pre-understandings. Hermeneutics has been broadly applied in the humanities, especially in law, history and theology.

Hermeneutics was originally applied to interpretation or exegesis but the transliteration of texts is also known as eisegesis. This is the free adaptation of text without a hermeneutical methodology. Eisegesis is a form of speculation from a position of reading a text without a context or grammar for understanding.

When it comes to the risk industry one observes the constant struggle against fallibility and mortality in the discourse of zero. This is because the risk industry is locked in a STEM-only discourse without a hermeneutic with which to understand the questions of suffering. The language and grammar of science, regulation and engineering has no hermeneutic to tackle metaphysical questions. So where would one start? Well certainly not with the idea that fallibility is evil, or that mortality is wrong or human being id defiled?

Indeed, the very notion of what it is to be a person and to be human is framed on the necessities of being. This is why STEM-only knowledge without a hermeneutic uses religious language about fallibility as 'defilement', seeking salvation in countering 'human error'. Reason's classic model of 'violations' and 'acts' is founded on an assumption of the symbolism of blemish, stain, sin, missing the mark, trespass and evil, symbolically represented in the Bradley Curve (<https://safetyrisk.net/safety-curves-and-pyramids/>).



The study of human 'being' was first tackled by the school of Phenomenology founded by Husserl, Heidegger and Ricoeur. Ricoeur's work *Fallible Man* is an excellent piece on the symbolism of evil and the necessity of fallibility. In reading Ricoeur one steps out of the masculinist theological constructs of binary power so common in STEM symbology and the construction of god as some kind of dominant oppressor. When one moves into the vocation of 'saving lives' one embarks on a discourse of salvation or what theologians know as soteriology (<https://en.wikipedia.org/wiki/Soteriology>).

The trouble with STEM-only knowledge in trying to tackle the big questions about suffering, being and fallibility, seeks to discredit the non-scientific assumptions of transcendence, semiotics and theology. STEM-only has little understanding of semiotics, the cosmic, onerific and poetic dimensions of thinking and being. Non-scientific methodologies are often thought of as 'primitive' by STEM yet, in our post-scientific age and post-textual age so much of secular culture is infused with transcendent signs, symbols, narrative and thinking.

Without some kind of transdisciplinary study in philosophy, metaphysics or theology, it is not likely soon that the risk industry will know that it is trapped in its own making of zero and the fixation with counting, hoping one day for immortality. Meanwhile in the real world, where wisdom and discernment are the marks of maturity in *Real Risk*, wisdom is made silent because its worldview is framed on an alternative mythology to STEM.

To Err is Human, To Forgive Divine

The fixation of the risk industry with this little phrase 'to err is human' and its misreading shows so clearly that the risk industry lacks the ability to think broadly and critically about error. A debate at an SIA conference (<https://www.youtube.com/watch?v=PnMLHjrSFJw>) illustrates what happens when the assumptions of STEM-only are placed upon this phrase. Without some understanding of social politics, theology, critical theory, cultural theory and literature (all missing from any risk curriculum) it is no wonder that the industry struggles with its meaning. Search through publications in risk over the last thirty years and you will find a fixation with 'human error' but little discussion or the recognition of fallibility (https://oshwiki.eu/wiki/Human_error).

The phrase 'to err is human, to forgive divine' comes from the English poet Alexander Pope. In the poem *An Essay on Criticism*, Part II, 1711 (<http://www.eighteenthcenturypoetry.org/works/o3675-w0010.shtml>), Pope's world was a theological world ie. Theology was the lens by which one understood life and living. Whilst Pope is known for the development of the 'heroic couplet' his social politic was one of competing forces and a distain for a lack of critical thinking. Pope detested 'dumb down' and demonstrated through his couplets that truth was only understood in a dialectic between forces. Pope needs to be understood through the lens of theology, social politics and literary criticism.

Pope's developing years were affected by the Tests Acts (1661-1678) which upheld the status of the Church of England and banned Catholics from teaching, attending a university, voting or holding public office on pain of imprisonment. Something like a Trump Wall for Mexicans or a Trump Muslim ban. As a Catholic family the Popes were unable to live within 10 miles of London or Westminster. Pope, a deeply committed Catholic, felt this separation deeply. Anti-Catholic sentiment in England at the time was 'viral'.

So, when we come to understanding the context of this phrase theologically, socially and politically we can better understand Pope's meaning and purpose. A download of *The Life of Alexander Pope* is available here: http://books.googleusercontent.com/books/content?req=AKW5QadPUdHOVAQ5uEpgDnMp1anJR4qQ1BXi4am_RTaI23uEHxNmI3YCsc9SvXZcy3jW2jxYyQ-GIENUVDiq9wv8mD2anpzzJvYLTeY87kyt1y75bPqnQH8tR_8zyHmEDwWy42Nxuef8KJX8DXI8h-B26JXAYqAHPbeMaE-oYSkVRAZsCg4Fp_QIKs4a7FmDuAdwuhLhnLOhj3ge43uOZSiT2Z9ag_zJSXzj4uGnQDUsc_VZ80neYHqdi0dArSg9s_xd4_5vAnnL-d6NbItGwyUdhY-ZXOO_w

Pope wrote his *Essay on Criticism* in 1709, assembled over 3 years. (<https://ia800809.us.archive.org/3/items/aeb0151.0001.001.umich.edu/aeb0151.0001.001.umich.edu.pdf>)

Pope explains that, while human fallibility is without question normal, forgiveness is divine. The couplet appears towards the end of Part 2 of 3 Parts as follows:

Ah ne'er so dire a Thirst of Glory boast,
Nor in the Critick let the Man be lost!
Good-Nature and Good-Sense must ever join;
To err is Humane; to Forgive, Divine.
The scene is set for part 2 with the following:
Of all the causes which conspire to blind
Man's erring judgment and misguide the mind,
What the weak head with strongest bias rules,
Is pride, the never-failing vice of fools.

Pope didn't suffer fools gladly and saw great foolishness in the State fear of Catholics and Catholicism. At the start of the next stanza Pope states:

A little learning is a dangerous thing
Drink deep, or taste not the Pierian spring
There shallow draughts intoxicate the brain,
And drinking largely sobers us again.

Perhaps Pope here foretells the ignorance of several archetypes, including I would suggest the current archetypes of Risk, Safety and Security. The Pierian Spring refers to the quest for knowledge and the satisfaction with ignorance. And so, a little learning, perhaps a cert 4 in regulation thinking, is a dangerous thing. 'A little learning is a dangerous thing' is so evident in the compulsory mis-education of STEM-only knowledge in the risk industry. No wonder the evil of eugenics emerge in the risk industry in its formulations about what to do about risk when it doesn't know what to make of fallibility. See: <http://www.revelian.com/work-safety/> or <http://www.selectinternational.com/online-safetydna-assessment-and-development-program>

The idea of fallibility is a deeply theological idea, just as the notion of infallibility in perfection and zero is an absurd idea if applied to humans. This is why Pope emphasizes the second part of the couplet, the absurdity and delusion of seeking to be divine/infallible. For Pope and all religions (except the risk religion), fallibility is the bedrock for understanding the self. For Pope the idea of aspiration for divinity is essentially the mark of delusion and the nature of sin. From the stories of Adam and Eve, Abraham (see Kierkegaard), Job (see Jung) and Jonah (see Ellul) we learn that the seeking of divinity (perfection/zero) is the breaking of relationship with self/others.

For Pope these stories are not some kind of binary trap but rather form a dialectical struggle to make intelligent the meaning of being human. Accepting fallibility is not a position of fatalism but rather is understood as a liberation to be truly human. For Pope, fighting against fallibility is a stupidity. Understood theologically Pope makes it clear that whilst humans seek blame, the Divine offers grace and forgiveness. It is Pope's theology to not see fallibility as a penalty but rather as a driver of human's to grace.

So at risk of losing the reader in theology, lets return to the preoccupation of the risk industry with error.

It is clear that the risk industry doesn't understand fallibility, how could it without a trans-disciplinary approach to knowledge. The idea that human error is about 'a taxonomy', 'science' or 'engineering' is the impost of STEM bias on the nature of being human. Apparently, Risk Management doesn't need anthropology, theology, social

politics, social psychology, critical theory, philosophy, education or cultural theory to understand humans, just bundle up some behaviorist and mechanistic disciplines and bingo, humans are objects and a mechanical aspect of systems.

We have the legacy of Reason to thank for the idea that human error is the sum of unsafe acts and unsafe conditions (https://www.galliera.it//20/58/strutture-e-servizi-in-staff-alla-direzione-sanitaria/ugr/pg-ugr/documenti/pubblicazioni/risk_12.pdf), and the model accepted in all texts on risk as a model of human error. At no point in any discussion on human error by any author/researcher is there proper discussion about fallibility. Error is always attributed to a: lack of knowledge, lack of skills, lack of will, lack of rule compliance or lack of ability.

Amazing how the binary model has been normalized in the risk industry in such a short time without question. Reason frames the subject like this: 'We cannot change the human condition, but we can change the conditions under which humans work' and 'The basic premise in the system approach is that humans are fallible and errors are to be expected, even in the best organisations' (https://www.galliera.it//20/58/strutture-e-servizi-in-staff-alla-direzione-sanitaria/ugr/pg-ugr/documenti/pubblicazioni/risk_12.pdf). Finally, the use of the 'f' word framed by Reason in the context of 'the human error problem' (p. 1). Unfortunately, fallibility is not considered theologically by Reason and so one reads assumptions of Original Sin and Penal Substitutionary Atonement in the discourse. Reason proposes a binary construct for this so called 'human error problem' and so plays into the binary assumptions of the risk industry, no wonder risk industry adores the works of Reason.

Reason doesn't deem human error theory a 'Wicked Problem' or as an open ended paradox but rather just a matter of 'a person approach' or a 'systems approach'. Nice to have a binary construct to frame for 'human error management' unfortunately excluding a host of other ways of understanding human fallibility. This is also somewhat like the binary construct offered by Kahnemans, binary framing the mind as just a matter of fast or slow. It is good that others like Dylan Evans and Guy Claxton join with me in critique of Kahneman's binary framing see: <http://blog.projectionpoint.com/?p=353>.

Unfortunately for the risk industry Reason and Kahneman lead us into deeper binary constructs that don't serve the industry well, more foundations for the ideology of zero.

Reason frames risk as the activity of error management, the plugging of holes in the reductionist swiss-cheese, managing acts and conditions. Within this frame humans are understood as a 'factor' in a system. Where does this leave us?

The challenge of Pope's couplet is a call to dialectic between the fallible and infallible, a dance on the pinhead of a Wicked Problem. What Pope calls us to is a rejection of binary discourse and the associated delusions of ignorance in the denial of fallibility. By coupling the impossibility of infallible after the fallible we can see that fallibility is not an evil but rather what liberates humans to accept their humanity. If we accept Pope's call to the 'dance' we will better step beyond the seduction of reductionist and binary constructs imposed on a model of what the risk industry imagines it means to be human and how it understands error.

Anosognosia

Everyone ought to know that denial is not a healthy psychological state. We know that denial is one of the stages of tackling suffering, loss and death as Elizabeth Kubler Ross articulated first in *On Death and Dying* in 1969. (Download here: http://www.psicoterapia-palermo.it/PDFS/On%20Death%20and%20Dying_Kubler%20Ross%20Elizabeth.pdf)

At a deeper level, the denial of illness and the denial of denial is known as **Anosognosia** (<https://en.wikipedia.org/wiki/Anosognosia>). Sometimes unconscious denial helps humans cope with extreme trauma and shock, this is evident when we experience extreme pain and loss. In such a state our mind shuts out the loss and pain because the confrontation would be too crushing. On most occasions such denial is only temporary, soon we face up to

reality and learn to cope with the new reality. This is the dynamic and organics of resilience (<https://safetyrisk.net/an-social-ecology-of-resilience/>). However, when denial persists it then emerges as a delusion and this makes it difficult to live in the real world. There is no great benefit in maintaining a delusion or denial in the face of reality.

One of the challenges for those who maintain the language of zero in risk is the fundamental denial of fallibility and randomness. One cannot continue to speak about perfection, set goals of perfection and fill the airwaves of risk with perfection without speaking in denial of fallibility. The language and discourse of zero is the language of denial. It doesn't matter whether one aspires that no one be injured or harmed, the language and symbolism of zero penetrates the unconscious and becomes a sign and icon of denial.

There are much better goals and language in risk than language that fosters the psychology of denial. We certainly don't speak such language of perfection in any other walk of life. If your child's school teacher started talking to your child about 'zero mistakes' and expecting perfection in their work, you would be the first to ask for an appointment for a parent-teacher interview. Education and Learning understand that risk and mistakes are essential for learning and maturity. Learning is the outcome of 'tackling' life not avoiding it.

Goodbye to Max

In 2017 some of us from the Social Psychology of Risk group said farewell to Max Geyer at his funeral service and wake conducted by Graham Long from the Wayside Chapel. It's pretty tough standing in front of a casket to then deny fallibility, harm and death. The symbolism of standing in front of a coffin and saying 'goodbye' is the reality of acceptance. As much as we don't have answers and neither the right questions, how it make sense to talk about zero?

Funerals, cemeteries and memorial symbolism serves to confront us with our own inevitable death.

Fallible people don't want to talk to people who treat them like a number or who talk about numbers. There can be no empathy or compassion coming out of language of absolutes and perfectionism. We are not interested in talking to people who treat us like an object in some laboratory of suffering and pain. Real life is not some experiment to act as voyeur to the suffering of others. The Perfect never listens, the Perfect has no need for tears.

When I was clergy it was both a privilege and burden to share in the suffering of others. When disaster and suffering comes there are no words of consolation, there is only presence and 'meeting' (Buber).

In the reality of life and death the construct of Original Sin and Penal Substitutionary Atonement are simply unhelpful in the face of death. What good are theologies that distance people from themselves and each other?

Whilst this discussion may seem morbid to some, it is intended to be helpful. Denial of fallibility, mortality, humanity and randomness doesn't help anyone. The more we speak nonsense language to people, the more those who have suffered are convinced that we are not the ones capable of empathy in a moment of loss or crisis. We don't seek care and empathy from people who talk nonsense. This is why the maintenance of zero language is a dangerous ideology (<https://vimeo.com/230093823>). This is why we should only speak of *Tackling Risk* not risk elimination. There is no learning without risk. Neither does the law, regulation or risk standards expect perfection or no mistakes.

So what should one do?

The reality is, we don't need to talk nonsense to people. We know that it is good at times to be silent in our language because we know such language is unhelpful. We know that if we use some words with colleagues it alienates them, if we use deficit language with our children it will make them less resilient.

We chose not to speak nonsense to others because it is a denial of reality.

Regardless of our goal or wish, we know that nonsense language has no place in the conversation between fallible people because of its effect and trajectory. Unfortunately, the focus on denial can be addictive, as we deny our fallibility it fosters an attraction to the cult of denial. This is anosognosia, the denial of denial. The language of acceptance is far more helpful than the language of denial.

The Archetype of Safety, The Hero Motif

There is a significant difference between the archetype of Safety (the activity personified) and the activity of tackling risk to be safe. There is a significant difference between a professional association, a profession, professionalism and behaving professionally? Being professional is about much more than just being in association or branding or membership of a group. Sharing a common role doesn't make one morally or socially professional. In order to better understand these distinctions it is helpful to explore the archetypal nature of Safety.

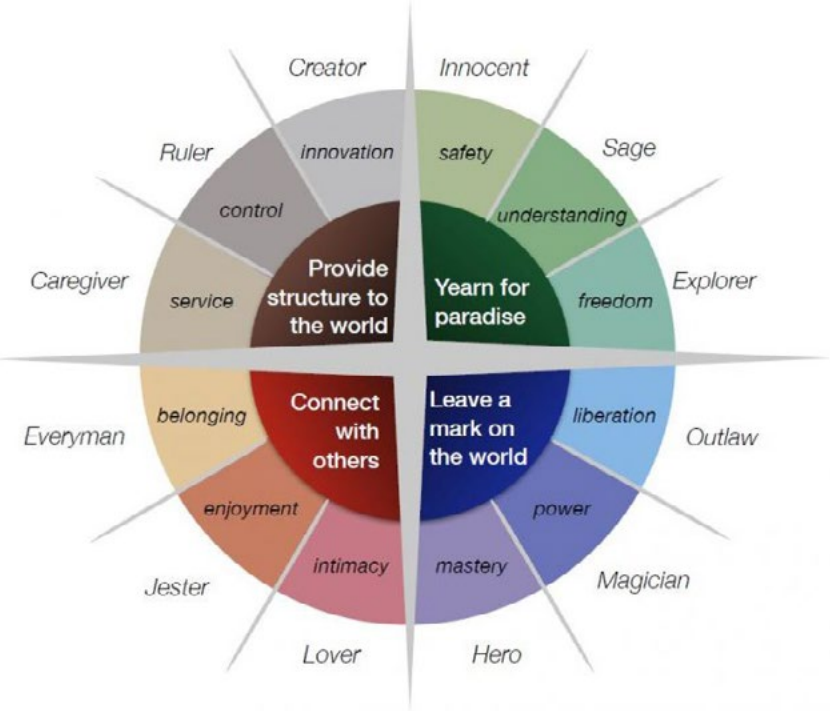
An Archetype is not identified in the work of individuals or even a group of individuals but rather in underlying unconscious dynamics and principles/forces at work in the 'collective unconscious'. The presence of archetypes is best understood symbolically and semiotically. (Shaev and Samoylova, 2013) Semiotics are experienced in everyday life in archetypal images in: story, narrative, poetry, film, media, organizational dynamics, societal mythologies and cultural dynamics. Terrorism-Fear is such an archetype.

The myths surrounding Terrorism-Fear in the media demonstrate just how powerful an archetype can be in the Australian Psyche (unconscious). A study of Islamophobia in Australia demonstrates just how powerful the Terrorism-Fear archetype functions in Australian culture (University of South Australia, 2017). Here we see under the Terrorism-Fear archetype the full flowering of Islamophobia in contradiction of all the evidence (https://www.unisa.edu.au/Global/EASS/MnM/Publications/Islamophobia_report.pdf). Safety as an archetype has a similar affect.

You can see from *The Archetype Mandala in Figure 11* that the archetype of Safety yearns for paradise and aligns with the innocent. This is the seduction of zero, heros and binary fundamentalist solutions. There is no paradise and there never was one. Yearning for paradise and infallibility is one of the delusions of resisting fallibility in the narrative of Adam and Eve. The tension in the Mandala is in the loss of intimacy, love and connection with others, this is what the fundamentalist binary quest puts at risk.

Understanding manadala and the semiotics of dialectic in the semiotcis of mandalas was explained in book 6. *Tackling Risk and Field Guide to Learning and Risk*. Book six also explains the power of semiotics and visual learning which is also critical for understanding the power of mandalas and archetypes.

Figure 11. The Archetype Mandala.



The transmission of archetypal power is communicated semiotically (Fontanille, 2007; Noth, 2007) and metaphorically (Ricouer, 1975) in cultural discourse (Lotman, 2000). Such archetypal power ‘emerges’ (Letiche, Lissack and Schultz, 2001) as a force/power that has ‘a life of its own’ that we witness in its full unpredictability (Lotman, 2013; Packard, 2007) throughout history (Samuel and Jones, 1982). For example, the personification of evil in the Nazi Movement is well documented (Ricouer, 1967; Ellul, 1973).

The Safety archetype is the archetype of the Hero and Innocence. Safety archetypically presents itself in soteriological narratives (salvation narratives) and is attracted to a discourse of ‘saving lives’. Safety is attracted to a discourse of absolutes evident in the discourse of zero. Safety is attracted to the discourse of perfection and salvation as a response to disaster and suffering (Dekker, 2017). In a world of imperfection, harm and suffering, Safety must ‘save’ people from mortality, fallibility and randomness. The trouble is that the archetype of innocence is also about a demonstration of ignorance. Innocence in this sense is not a perfection but an absence of knowledge. So, there is really no safety in innocence as this is also coupled with ignorance.

The evidence that Safety is fixated on perfection, absolutes and Zero is overwhelming eg. ‘Vision Zero’ was the identity of the XXI World Congress on Safety and Health at Work 2017 (ILO <https://www.safety2017singapore.com/> Accessed 22 September 2017). This is why the Salvation Narrative (Dekker, Long and Wybo, 2015) is so powerful and attractive for Safety. This is also explains the attraction of Safety to the hero narrative. Safety understands harm as a ‘natural instinct’ in Augustinian Original Sin against the ‘evil’ of harm. This is why the discourse of Safety is infused with the semiotics of religion (Yelle, 2013). The Congress was complete with huge banners of ‘We Believe’ endorsing a faith statement in Vision Zero . All statements that propose perfection against all the evidence must in the end be Confessions of Faith.

The maintenance of zero discourse is premised on the illogical assumptions of binary opposition and is precipitated by naïve questioning such as: ‘How many people do you want harmed today?’ Binary

oppositionalism (Carita, 2013) is the foundation for fundamentalist thinking (Long, 2012, pp. 63-83) which inhibits mature thinking about risk.

It is through the language and discourse of this naïve binary ideology that a host of illogical and unprofessional ‘mantras’ are maintained, such as:

- Safety is a choice you make.
- All accidents/injuries are preventable
- Zero harm is achievable

Zero ideology and language is premised on the denial of human fallibility, mortality and worldly randomness. The strongest threat against achieving any sense of professionalism in the risk industry is this archetypal Safety imperative. What this binary worldview leads to is a schizophrenic discourse that pitches nonsense against sensibility. For example, The Accord (2017, P.12) declares that the so called ‘safety professionals’ gives:

... advice is based on conceptual and technical knowledge of design, operations and management, mediated by experience, analysis of evidence and critical thought.

The Accord (2017) also declares that ‘safety professionals’ should provide advice on evidence-based science. In what world of science, critical thought and evidence can one maintain the language, discourse of perfection and the denial of fallibility?

When Safety is understood as an archetype and as a ‘vocation’ (calling), then one is in a better position to understand the difference between: professionalism, a profession, professionalization and ‘being professional’.

The Discourse of The Hero

The discourse of the hero is a masculinist discourse embodied in ‘the will to power’. Whilst it is helpful to be concerned about sexist language and images in risk what is of even deeper concern is the ‘will to power’ embodied in zero and an associated anti-social discourse in the fixation on objects. See further on the will to power in Deleuze, G., (1983) *Nietzsche and Philosophy*. Columbia University Press. New York.

For a general overview of archetypes and anthropomorphic language see: https://en.wikipedia.org/wiki/Jungian_archetypes and Laksmidewi, D., Susianto, H and Afiff, A., (2017) *Anthropomorphism in Advertising: The Effect of Anthropomorphic Product Demonstration on Consumer Purchase Intention*. Asian Academy of Management Journal. Vol. 22. 1.

For more on The Psyche in National consciousness read Neville, B., (1989) *Educating Psyche, Emotion, Imagination and Unconscious in Learning*. Collins Dove. Melbourne.

The notion of psychological archetypes was developed by C. G. Jung and is most associated with understanding of the ‘collective unconscious.’ The idea of the collective unconscious is also associated with an understanding of principles and forces at work in cultures/societies. See further: Jung, C. G., (1969) *The Archetypes and the Collective Unconscious*. Princeton University Press, New York.

There is nothing new in the personification of an activity. For example, we readily accept the personification of ‘the Market’ and ‘the Economy’. We also speak of ‘market forces’ and of dynamics in the society/economy as some kind of ‘invisible hand’ (from Adam Smith - <http://www.investopedia.com/terms/i/invisiblehand.asp>). The personification of ‘types’ helps understand how things can have a life of their own so well articulated by Gladwell (2000), Hoffer (1969) and Klein (1999).

For a sample of the archetype of Safety being preoccupied with heroics see the following:

- Ergon Energy: <https://www.ergon.com.au/network/safety/safety-heroes/be-a-safety-hero-and-win>
- Energex: https://www.energex.com.au/_data/assets/pdf_file/0011/359354/Safety-Heroes-Myth-Busters.pdf
- EHS Today: <http://www.ehstoday.com/safety/management/ready-safety-hero-7455>
- Safety heroes: <https://www.facebook.com/safetyheroesorg/>
- Safeopedia: <https://www.safeopedia.com/where-are-the-safety-heroes/2/4880>
- NSCA National Safety Awards: http://www.nationalsafetyawards.com.au/wp-content/uploads/2014/04/NSCA_Awards14_NomGuide_LR.pdf
- SafeWork Australia: <https://www.safeworkaustralia.gov.au/health-and-safety-representatives-workers-leaders>
- AMWU: http://www.amwu.org.au/safety_hero_wins_10_000_award
- WA Road Safety Zero Heroes <http://www.campaignbrief.com/wa/2016/07/road-safety-commission-thanks.html>
- Bata Shoes: <https://www.bataindustrials.com.au/safety-shoes/heroes/>
- SIA Victoria: <https://sia.org.au/events/calendar/victorian-safety-conference2017.html>
- SafeWork Australia and ACT Regulator: <https://www.healthsafety.com.au/safe-work-australia-continues-to-perpetuate-safety-mythology/>
- NY Port Authority – The Safety Hero Game: <https://www.lookoutforsafety.com/>
- We Are Union OHS Reps - Safety Hero Handbook: <http://www.weareohs.org.au/handbook>
- Safety Heroes on Android: <https://play.google.com/store/apps/details?id=air.nl.szw.safetyheroes>
- Safety Heroes: <http://www.safetyheroes.org/>
- Total Safety Heroes: <https://www.totalsafety.com/insights/videos-test-post/>
- British Woodworking Federation – HSE Hero program: <https://www.totalsafety.com/insights/videos-test-post/>

All sites were accessed 22 September 2017.

For a full understanding of the hero myth see Long and Ashhurst (2014) *Following-Leading in Risk, A Humanizing Dynamic*. Scotoma Press, Kambah pp. 4-12.

Strangely the archetype of the hero is most often associated with innocence but also ignorance. The hero knows no evil and hence is poorly educated and naive, the hero can do no wrong. The hero cannot really empathise with the weak or suffering because his status as hero is separate from the mortality and fallibility of normal everyday humans. The archetype of the hero is Perfect.

We see the hero type personified in Luke Skywalker in Star Wars pitted against Darth Vader the binary opposite in evil. Strangely in Vader we see the knowledge of Good and Evil echoing the story of Adam and Eve with Vader choosing the The Force in Power. It is in the will to power that Vader demonstrates the nature of sin., the breaking of relationship in favour of power, ego and knowledge. Both Skywalker and Vader know the Force but chose to interpret it differently.

Bon Scott as the Symbol of Hero

We can learn a lot about heroics, mandalas and archetypes from a case study of one of Australia's great 'bad boys'. No, not Ned Kelly but Bon Scott.

One learns a great deal from a semiotic walk and observation in cemeteries. Cemeteries are the place where people seek to immortalise themselves or others in symbols, myth, signs and text in search of the sacred and teleios, which is maturity and development towards the future. Most memorials are reflective, recollective but also teliological.

When I was 16 years of age I enjoyed a local Adelaide rock band called Fraternity. They were one of the best bands in Australia at the time and won the Hoadley's Battle of the Sounds (https://en.wikipedia.org/wiki/Hoadley%27s_Battle_of_the_Sounds) in 1971. The history of the battle of the sounds is a testimony to the bands and groups that were to become rock legends in Australian music. The front singer for Fraternity was Bon Scott. At the time he used to work at Flinder's St Record Shop in Adelaide and I can remember having plenty of chats with him over the counter before he went on to become a legend in rock and roll. The first time I saw AC/DC there were 20 people in the audience at the Adelaide YMCA Hall. Some years later I would be sharing AC/DC music in the 'moshpit' with my children and 90,000 other fans at Sydney Olympic Stadium see *Figure 12. AC/DC in The Moshpit*.

Bon Scott was Scottish born but lived his early life in Fremantle Western Australia. There is a statue of Bon on the foreshore of Fremantle harbour see *Figure 13. Bon Scott Statue*. Bon was in a few bands before joining AC/DC in 1974 and it was in AC/DC that the legend of Bon Scott developed. AC/DC were to become one of the greatest rock and roll bands in the world. Bon died on 19 February 1980. After Bon died AC/DC released *Back in Black*, a tribute to Bon that became the second highest selling album in history.

Figure 12. AC/DC in The Moshpit.



Figure 13. Bon Scott Statue.



Bon Scott was known for his rebellious nature having also served time in the infamous Fremantle Prison. Bon died alone in the back of a car, his death was attributed to acute alcohol poisoning, perhaps drowning in his own vomit. Bon's grave site is the most visited grave site in Australia and has its own gate entrance see *Figure 14. Bon Scott Gate*.



When you visit Bon's grave, the bronze plaque is always adorned with bottles of spirits and alcohol in tribute to Bon the hero of rebellion, 'living free' and breaking rules, see *Figure 15. Bon Scott's Grave*. The heroics of Bon Scott semiotically represent the typical 'bad boy' larrikin so attractive in Australian mythology. Along with the likes of Breaker Morant and Ned Kelly many Australians are endeared to Bon Scott for all he symbolises. The Archtype of Bon Scott is the outlaw-as-hero, standing out as superhuman or transhuman in dialectic to the perfection of the innocent hero. Perhaps Bon did the things others thought of doing but never did.

Figure 15. Bon Scott's Grave.



What does Bon Scott as hero symbolise? The best way to define the heroics of Bon Scott is to present one of the popular songs he performed for the *High Voltage* Album released in 1976, *Rock 'n Roll Singer*:

Rock 'N' Roll Singer

Vs1. My Daddy was workin' nine to five

When my Momma was havin' me

By the time I was half alive

They knew what I was gonna be

But I left school and grew my hair

They didn't understand

They wanted me to be respected as

A doctor or a lawyer man

(But I had other plans)

Chorus: Gonna be a rock 'n' roll singer

Gonna be a rock 'n' roll star

Gonna be a rock 'n' roll singer
I'm gonna be a rock 'n' roll,
A rock 'n' roll star

Vs. 2. Well I worked real hard and bought myself
A rock 'n' roll guitar
I gotta be on top some day
I wanna be a star
I can see my name in lights
And I can see the queue
I got the devil in my blood
Tellin' me what to do
(And I'm all ears)

**Vs. 3. Well you can stick your nine to five livin'
And your collar and your tie
You can stick your moral standards
'Cause it's all a dirty lie
You can stick your golden handshake
And you can stick your silly rules
And all the other shit
That you teach to kids in school
('Cause I ain't no fool)**

Take note of the lyrics of verse 3 in bold. This verse serves as the metaphor and symbol for the life of Bon Scott - the hero for many. You can see Bon singing the song here: <https://www.youtube.com/watch?v=OXjTHPjjX4Y&pbjreload=10> with some voice over of his love for alcohol and women.

The hero-as-outlaw is also an attractive motif in the risk industry. The perception of the naive 'do gooder' who crusades for risk aversion is also about the heroics of not-knowing. Perhaps fallibility requires a dialectic between Sywalker and Vader to be truly educated? Perhaps Bon Scott knew more about life, fallibility and resilience than the 'marshmallow' wrapped up in cotton wool?

The Sacred Bra Tree

It's not likely that you have ever seen a 'Bra Tree', a rare species of Australian eucalyptus in the Murray/Mallee about forty kms East of Mildura near Euston, Victoria pictures at *Figure 16. The Sacred Bra Tree*. The Bra Tree has been made a sacred tree because it is a memorial. Whilst hanging bras in a tree might not make sense, it certainly makes sense to all those who knew the person who died. What we learn from the Bra Tree is a great deal about the human quest for the sacred and transcendence. In light of the mystery of life, suffering, harm and death we all in some way create ways of remembering those we love. When words seem empty and insufficient at the passing of a loved one, a semiotic (symbol) can say much more.

Figure 16. The Sacred Bra Tree



When we understand the power of symbols and icons (<https://safetyrisk.net/the-iconography-of-safety/>), then we begin to understand the unconscious power these symbols have on the human psyche. Those who think words, text, language, icons and symbols have little unconscious significance need to see what happens when they try to take away a semiotic of significance. Deface something at a church or temple, suggest not using a Risk Matrix or injury pyramid, suggest not counting trifles or, dare I say it, suggest dropping the sacred symbol of zero from an organizational risk policy. You will soon find out how sacred the object, symbol or process is.

When something is made sacred it then becomes a sacrament. The Risk Matrix, pyramids, curves, bow ties, swiss cheese and dominoes and a host of other objects and processes have all taken on sacramental significance in the risksphere. This is despite the fact that few of these sacraments actually assist in tackling risk. Most risk semiotics create comfort, theatre and cosmetics but offer very little rational method for tackling risk. Certainly none of these can be used to demonstrate that risk in an organization is being effectively managed: <https://vimeo.com/162493843>

We learn from a study of semiotics that a sign simply points in a direction and it only says one thing. Whereas a symbol/myth says much more than itself and can speak many meanings in different ways to different people. An understanding of semiotics and the unconscious is critical to understanding people, motivation, perception and the process of sacralisation. Memorial semiotics tell us so much about what a person believes about: humans, life, love, transcendence, faith, hope and living. Some people keep an object that was special to the person as a

memorial, some may have a special photo, a piece of jewelry or others make some thing or place a memorial. We can learn much about the power in objects-made-sacred when we try to take that thing away or when it is lost.

We see other memorials on the side of the road to loved ones passed away through road accidents. This one below in *Figure 17. Roadside Memorial* is on the side of the road between Goulburn and Sydney and is elaborate in the many objects it has left as a semiotic of significance to the person who has died. The memorial includes: photos, flowers, poems, dragons, angels, a bronze plaque, crosses, bottles, a cap and toys, all with symbolic significance to the person who died.

Figure 17. Roadside Memorial



Fallible humans make things ‘sacred’ in the midst of a world that seems so profane. When humans run out of words, rational explanations, text and systems that don’t help, they turn to semiotics to say what can’t be said. Eliad in *The Sacred and Profane, The Nature of Religion* (1957, p. 12) states:

By manifesting the sacred, any object becomes something else, yet it continues to remain itself, for it continues to participate in its surrounding cosmic milieu.

Unfortunately, one cannot remain ‘agnostic’ about the semiotic of zero. In the light of all we know about the power of semiotics one can’t say on the one hand that knowledge is important and then on the other state that one doesn’t know about the danger of zero: <https://vimeo.com/230093823> There is nothing more nonsensical, unethical (<https://safetyrisk.net/how-can-the-ideology-of-zero-be-ethical/>) and demotivating than speaking absolutes to fallible humans.

The making of sacraments is about the semiotics of transcendence, seeking the absolute in frustration with fallibility. This is the religious process.

One can't understand culture or define culture without an understanding of religious semiology, except that it gets no mention in risk bodies of knowledge when discussing or defining culture. Risk remains stuck in defining culture as 'what we do around here' and 'if it can't be measured it can't be managed'. What the risk industry needs is a good dose of reading Yelle (2013) *Semiotics of Religion* in order to understand just how religious it has become under the rubric of zero. Unfortunately, immersed in so much STEM-only knowledge that is not likely.

When we begin to understand the significance of Bra Trees and roadside memorials then we might learn something about culture and why zero is such a dangerous sacrament.

Workshop Questions

1. What is the desire for infallibility all about?
2. Look for language in your workplace that desires infallibility.
3. Does your industry deify heroes?
4. What is the iconography and symbology in your organisation associated with risk?
5. What do you think of transhumanism?

Transition

A constant thread throughout this book is about semiology and the creation of meaning through symbols. When the risk industry begins to understand the power of how signs, icons, symbols, language and discourse affect the unconscious, then will it might be able to speak sense about risk to people and how to tackle risk humanly. We observe in the next chapter and section just how far the ideology of absolutes has permeated the risk, safety and security spheres. This is evidenced in a growing discourse in religious language, metaphors and symbols under the ideological drive of zero.



SECTION TWO

Zero Ideology





CHAPTER 3



The Religion of Zero

Risk analysis that tries to exclude moral ideas and politics from its calculations is putting professional integrity before sense. Looking for the wrong kind of purity it gets enmeshed in the impurities it seeks to avoid. - Mary Douglas, Risk and Blame

Alienation is the process whereby the dialectical relationship between the individual and his world is lost to consciousness. - Peter Berger, The Sacred Canopy, Elements of a Sociological Theory of Religion

But what effect does nothing have? It begets anxiety. - Soren Kierkegaard, Repetition

Zero as Semiotic and Ideology

The human world is visual and social. Every sign and symbol that bombards our senses has an effect in our unconscious and the collective unconscious. Butler's (2017) extensive research demonstrates that the notion of zero in risk is clearly understood as a philosophy/ideology. Most organisations that use the language and discourse of zero claim that zero is both a value and a philosophy/methodology. The mind boggles as to how any such claims can be made. If any claim to being a value and philosophy were to be made it could be suggested that zero is a sub-set of positivism but there is no evidence that zero could possibly be a philosophy in itself. Whilst zero can be something one might value, it could never be claimed to be a value like love, care, trust or hope. At best zero is either a number or the name for a positivist ideology.

Positivism is the foundation of STEM-only knowledge and is supported by the archetype of Technique. Positivism holds that valid knowledge, certitude and truth is found only in this a posteriori knowledge. Positivism holds that verified data is received from the senses as is known through empirical evidence; thus positivism is based on empiricism.

The Finger and the PLO

We know that what we say and present to our children is highly influential which is why adults are careful about what they say around children and what images we present to them. I know parents who sensibly limit access on the Internet, switch off the news and are careful about what their children see. This is because we know that images, pictures, signs and symbols have psychological affect. I learnt this the hard way when I had my own children.

I remember once talking amongst a group of adults at a BBQ about road incidents, about altercations and right of way. We chatted about how people don't seem to know the road rules or seem at times to ignore

them. Each in the group recalled stories about similar events, especially how people cut out into traffic and having to jam on the anchors to let them in. We shared perceptions of impatience and how each person responded. One friend said he just gave them 'the finger'. My son was with me at the time.

At the time my son was only four years old and he had been listening to the conversation. Later as we were driving home, he held up his longest finger with the others fingers closed and in reversed fashion said 'Dad, is this the finger'?

I don't know how he had learned this gesture but it wasn't from me or anyone else in my family but he clearly knew this symbol and what it meant.

When we got home it was bath time and so I put the two boys in the bath and as they played with bath toys and figurines the four year old said to his brother, 'I'll be the PLO, you be the goodies'. He clearly didn't know what it meant but had picked up this acronym up from the TV and reports about the Palestinian Liberation Organisation. It was then that I realised that I couldn't watch the news till after bed time and that four year olds were like sponges to information, images and symbols.

We know from the study of semiotics just how powerful text/words/semantics are. I studied this in my first Masters degree and how the Women's Liberation Movement knew semantics changes culture. The insistence on framing and reframing helped change the way of prejudice and discrimination in the 1960s. It was a principle strategy of the Movement to use gender neutral language to change culture or at least influence culture and organisations unconsciously to be aware of prejudice and discrimination against women. We see this emerging in the #metoo Movement (https://en.wikipedia.org/wiki/Me_Too_movement).

We know from studies in semiosis/meaning and in learning about the semiosphere, that the world of symbols, signs and images shape the unconscious and the collective unconscious. We learn this from: Lotman in *Universe of the Mind, A Semiotic Theory of Culture* (2000); Deely et.al., *Frontiers in Semiotics* (1986); Zantides *Semiotics and Visual Communication* (2014) and Fontanille *The Semiotics of Discourse* (2007). Birren (2013) also demonstrates that colour shapes and influences us socially and psychologically which is why rooms for discipline in schools are light green and why Corporations use colour to influence spending. We discussed how humans learn by absorption and visual learning in book six *Tackling Risk, A Field Guide to Risk and Learning* (2017).

Understanding words as image and symbol, text in discourse and symbols/signs as language and grammar is critical to knowing why speaking absolutes to fallible humans is a dangerous idea. See further my video presentation *Zero, The Maintenance of a Dangerous Idea* - <https://vimeo.com/230093823>).

Sticks and Stones and the Power of Language

When we were kids we were taught the rhyme 'sticks and stones may break my bones but words don't worry me' (https://en.wikipedia.org/wiki/Sticks_and_Stones). This mantra is such a silly childish semiotic that totally ignores the nature of how language affects the mind. The truth is, words do matter. What we say and how we say it can be so harmful. (see further: <https://www.psychologytoday.com/blog/words-can-change-your-brain> Fairhurst *The Power of Framing* or, Flynn, Slovic & Kunreuther *Risk, Media and Stigma*).

We know how harmful bullying can be. We also know that bullying and harassment in the workplace leads to suicide and significant psychological harm. We know this is so, based on the Alec Meikle suicide and Downer EDI case (<http://www.abc.net.au/news/2015-01-30/inquest-into-the-suicide-of-a-teenage-apprentice-ends/6057712>) and the case of Dolly Everett (<http://www.abc.net.au/news/2018-01-10/dolly-everett-nt-suicide-cyber-bullying-campaign-launched/9317056>)

I wonder if any tier one organisations who espouse zero record the number of people bullied in their organizations? I wonder if they even consider the relationship between absenteeism and bullying? I wonder if psychological harm is even a blip on their zero radar? I bet no TRIFR (Total Recordable Incident Frequency Rate) or LTI (Lost Time Injury) rate records bullying! See how absurd zero is.



The truth is, the language of zero and counting incidents creates a focus on petty physical harm. Under the rubric of zero, cuts and breaks becomes privileged information and desired knowledge, whereas hidden and unseen harm is not considered harm. The delusion of zero is only kept alive by this crazy idea that risk is managed by the absence of harm. So companies freak out over any incident but let hundreds of days of absenteeism slip under the radar in testimony to the ideological attribution of symbolic significance to zero.

A survey in building and construction (<http://www.canberratimes.com.au/act-news/seven-in-10-young-workers-bullied-harassed-in-canberra-unions-act-20170514-gw4tbm.html>) indicated that young people are bullied on site at an alarming rate. The research shows the level and power of harm projected by such bullying. For example, a young person being called 'retard' is a very powerful metaphor and semiotic. Metaphors are perhaps the most powerful of semiotics when it comes to bullying. Ricoeur (1974) calls metaphor a 'heuristic of thought' in *The Rule of Metaphor*. A heuristic is a psychological 'rule of thumb' that substitutes for a lengthy process or discourse. There it is, just one word-metaphor can be so powerful because it sums up a mind picture of all that is attached to it.

It is not surprising that the risk industry doesn't really get the social psychological nature of bullying. When the Industry accepts such incongruent metaphors as *Resilience Engineering* (Hollnagel) as normal, we can see the extent of the problem. The way that the risk industry is so immersed in the mechanistic worldview is also a critical factor in why bullying runs under the radar. With a curriculum so focused on objects and bodies of knowledge so focused on systems and hazards, is it any wonder that bullying receives no mention as a social-psychological problem.

When culture is defined as systems or behaviours, the power of symbols, artefacts and semiotics as cultural capital are excluded. The risk industry is locked into a focus on behaviourism and measurement whilst an epidemic of bullying runs under the radar. The ideology of behaviourism also promotes the nonsense that penalties and punishment drive behavior. Our goals are full of examples that kill off such mythology. Research into the psychology of goals and motivation show quite clearly that people are not the sum of inputs and outputs. I have written about the Psychology of Goals in *Risk Makes Sense* (2012).

So what can be done to invoke some change? First, organisations need to take language and semiotics seriously, which means they need to understand critical semiotic issues. There is no training in the risk industry on semiotics. Second, organisations need to dump nonsense language like 'zero harm' and start to speak a different language that has a holistic focus. The risk industry will never see bullying as a social-psychological problem when it is blind to its own 'collective unconscious'. Third, curriculum reform is needed to help the industry move away from a 'dumb down' focus on objects and hazards to better focus on people as subjects, not as objects as a sub-set of a system. When the risk industry begins to understand itself as a 'helping' activity rather than a surveillance activity, then the rate of bullying may start to be addressed.

The Religion of Zero

Religious studies demonstrate that in our post-science/post-text world the secular is becoming more religious and the religious is becoming more secular (Oswalt, 2012). Oswalt and Lyden (2003) demonstrate through studies of film that popular culture is dominated by a deep search for transcendence.

See further Harrison's analysis of a deepening sense of religiosity in the secular West (<https://aeon.co/amp/ideas/why-religion-is-not-going-away-and-science-will-not-destroy-it>).

There is no better evidence for the religious nature of the risk industry than in the ideology-religion of zero. Do you know that your whole business in every dimensions can be protected by zero? (<https://zeroriskinternational.com/>)

At the recent World Congress on Safety and Health 2017 the 'mission/vision' for the Congress was 'Vision Zero' complete with a triple zero logo and presentation with all the razza matatz of a Hillsong Convention (see *Figure 18. Vision Zero*). It seems when risk industry doesn't know what to do about fallibility it reaches for the

impossible and ‘worships’ zero in denial of reality. Zero is not a goal but rather a myth/semiotic for an inability to accept fallibility. Zero ideology has become all about belief see *Figure 19. We Believe.* and compare to *Figure 20. Hillsong I Believe.* The creed for the World Congress on Safety and Health 2017 will be demonstrated in its fullness in the following discussion and collection of photos.

Figure 18. Vision Zero

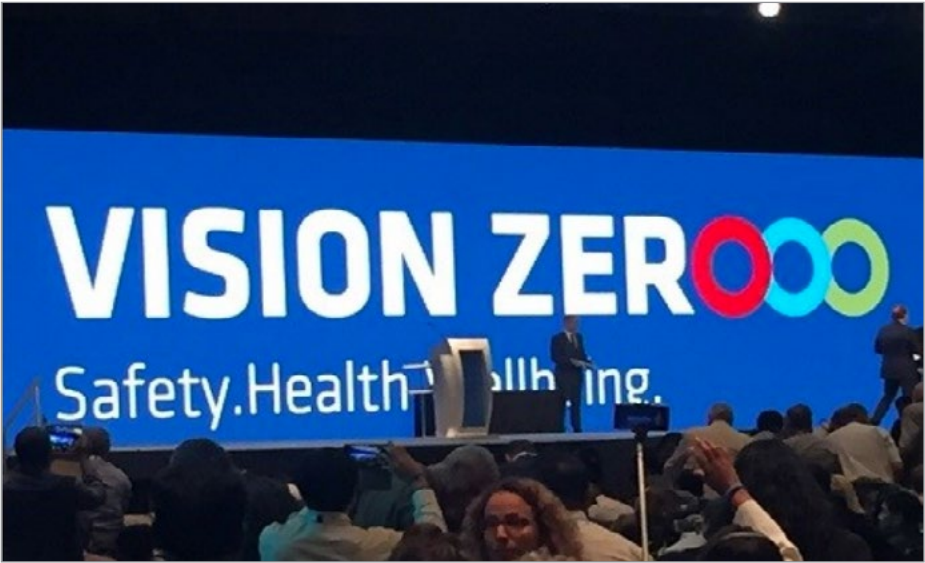


Figure 19. We Believe



Figure 20. Hillsong I Believe.



Here is a 'statement of faith' (creed) from a recent report from the British Safety Council (<https://www.britsafe.org/publications/safety-management-magazine/safety-management-magazine/2017/news-safety-and-health-experts-gather-in-singapore/>):

This 'vision zero' is graspable if the right approach is taken to empower individuals with the right knowledge and skills, and if good work can become the norm.

Then this:

Of course with 2.78 million deaths at work a year, costing \$2.97 billion (ILO), this vision seems a little far off. Is there not a danger that the Congress falls into a gap between rhetoric and reality - a gap of its own making?

It's clear that the ideology/religion of zero is about much more than metrics and numerics, although that is crazy in itself, it is about belief, in denial of fallibility.

No wonder in an activity that is about 'saving lives' that the quest for salvation in perfection surfaces as a faith commitment. (See further Dekker, Long and Wybo, 2016 Zero Vision and the Western Salvation Narrative, *Safety Science* <https://espace.library.uq.edu.au/view/UQ:398943>)

The strange thing is that this discourse neatly falls in line with the Religious Right as it seeks the road to fundamentalist, black and white perfection. With all the lights and floor show of a Hillsong Worship Service, iconography and artifacts, The Congress demonstrated that the religious right is now fully enculturated into the global risk psyche. See how the Congress seeks to make zero ideology as part of culture *Figure 21. Becomes Part of Our Culture* and compare to an image from a Google search for 'Hillsong Culture'. *Figure 22. Hillsong Culture*.

Figure 21. Becomes Part of Our Culture



Figure 22. Hillsong Culture



The Archetype drives this faith-commitment to the 'lost' because it defines Risk Management by counting and then measurement becomes a god. With an astounding binary assumptions and binary language the Congress discourse sustained ideas on the boundaries of the absurd like: 'Race to Zero, Safety that Works' (<https://www.youtube.com/watch?v=A12wOTBaJsg>), and there is apparently no contradiction there. here we see religious fervor in faith claims such as 'zero vision works' regurgitated in hype and spin and 'calls' to belief, without evidence.

The language and discourse of Zero and its sign systems, symbols and myths, set up the goal of the impossible in the Kingdom of non-sense. With the 'advent' of zero and with the logic of Augustinian Original Sin in the Bradley Curve we now see the fruit of theodicy demonstrated in the many symbols of religion in the quest for salvation in Safety.

Is it any wonder that all those outside of the risk industry look inside and are mystified about this small cult of Safety speaking nonsense to the world of reality.

Marketing Zero Propaganda

Propaganda is the ideological manipulation of ideas to support and defend political interests. Ellul (1973, p. 61. https://tavaana.org/sites/default/files/Ellul_Jacques_-_Propaganda.pdf) states:

Propaganda is a set of methods employed by an organized group that wants to bring about the active or passive participation in its actions of a mass of individuals, psychologically unified through the psychological manipulations and incorporated in an organization.

A critical aspect of propaganda is the anti-learning process of indoctrination, this was discussed in detail in book six *Tackling Risk, A Field Guide to Risk and Learning* (2017). Indoctrination is the inculcation of ideas without critical analysis and the promotion of non-reflective discourse. Indoctrination is the opposite of education and is associated with parrot training rather than reflective thinking, evidence-based-practice and discovery learning. One of the key dynamics behind indoctrination is 'blind faith'. Blind faith requires non-critical thinking, absorption and non-questioning. The enemy of blind faith is doubt, questioning and critical thinking. Blind faith is a way of thinking most associated with religious discourse.

In the recent promotion of zero vision at the World Safety Congress 2017, we observed the religious signs and symbols of 'We believe' and other faith-based statements. We also saw demonstrated all the propagandistic campaigning of a religious crusade. See *Figure 23. The Zero Vision Campaign*.

Figure 23. The Zero Vision Campaign.



The larger than life iconography and symbolism used at the Congress (See *Figure 24 Larger Than Life*) was targeted at absorption rather than contestation or coherence. Zero was accepted as non-contestable and unquestionable. This is achieved through social psychological forces such as Groupthink, Affect Heuristic and Conformity Bias (<http://ethicsunwrapped.utexas.edu/glossary/conformity-bias>).

Figure 24. Larger than Life



The evidence for religious discourse is evident throughout the Congress and Vision Zero Campaign including: language of possible perfection, fear of harm, fundamentalist ideology and semantic conformance. Hands are raised in Praise of Zero (see *Figure 25. Zero Praise*).

Figure 25. Zero Praise



Across all the literature of the zero campaign and in the Congress, zero is acknowledged as a philosophy/ ideology. The ideology is supported by a range of ‘testimonies’ which is a common strategy in fundamentalist Pentecostalism (<http://visionzero.global/testimonials>). You can see Hillsong testimonies here:

- <https://www.youtube.com/watch?v=cBx08iI80Ow>
- <https://vimeo.com/13441472>

Here are some samples of zero testimonials in the zero campaign :

- A workplace without accidents, diseases and harm is only possible if both the safety, health and wellbeing of people is properly looked after.
- However, nothing can substitute good leadership and commitment to ‘safety first.’ For this reason, safety concerns were at the core of every decision I made both in orbit and on the ground.
- Vision Zero starts with those who hold responsibility, but it can only become a living culture if everyone contributes.
- Our mind-set needs to aim at a Vision Zero: zero accidents, zero harm ... Some people think Vision Zero is unrealistic. We beg to differ; the power of our mind-set is strong.

As with all propaganda, there must be a comprehensive ‘campaign’ and it is now ‘global’ (<http://visionzero.global/>). As with all religious belief it also comes down to a pledge, a covenant and promise. See *Figure 26. Zero Pledge*.

Figure 26. Zero Pledge.

The image shows a web page for 'VISION ZERO' with a 'TAKE ACTION' sign-up form. On the left, a dark sidebar titled 'JOIN US' lists ways to join the campaign, including being part of a global community, vision zero companies, partner organizations, or trainers. The main content area, titled 'TAKE ACTION', invites users to sign up for exclusive content and updates. The sign-up form includes fields for 'Company / Organization', 'Type', 'Country', 'First Name', 'Last Name', 'Email', and 'Website'. A 'sign up' button is at the bottom right.

VISION ZERO

JOIN US

Join the Vision Zero Campaign

You can take part in a global effort

- To improve safety, health and wellbeing at work
- To prevent occupational accidents, diseases and harm
- To reduce the economic burden of poor working conditions

Be part of a global community of

- Vision Zero Companies
- Vision Zero Partner Organisations
- Vision Zero Trainers

Together we can shape a world of work without accidents, diseases and harm.

Together we can make Vision Zero a reality - Learn what you can do.

- Testimonials
- Vision Zero Companies & Partners
- Become a Vision Zero Trainer
- Resources

VISION ZERO > join us

TAKE ACTION

Become part of the Vision Zero community! By signing up, you will have access to exclusive downloadable content and you will receive our updates and other information.

Sign up here to the pledge

Company / Organization *

eg: the company you work for

Type

- None -

Country *

- Select -

First Name *

eg: your first name

Last Name *

eg: your last name

Email *

eg: yourname@gmail.com

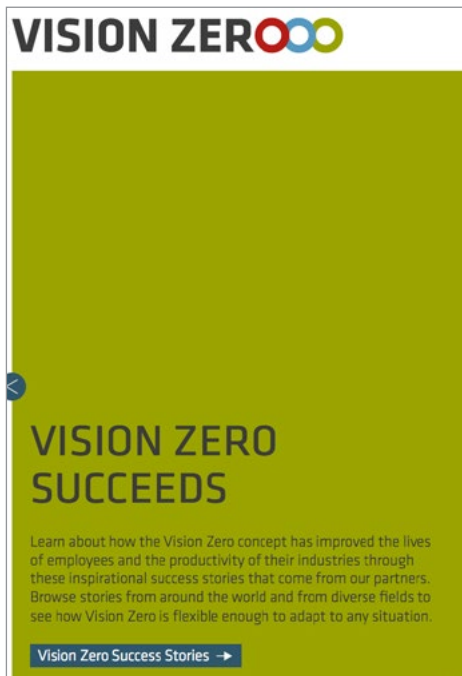
Website

sign up →

The comprehensiveness of this campaign reminds me so much of experiences with the Billy Graham Crusade that I have discussed comprehensively in Book 3 *Real Risk* and Book 6 *Tackling Risk*. The campaign includes:

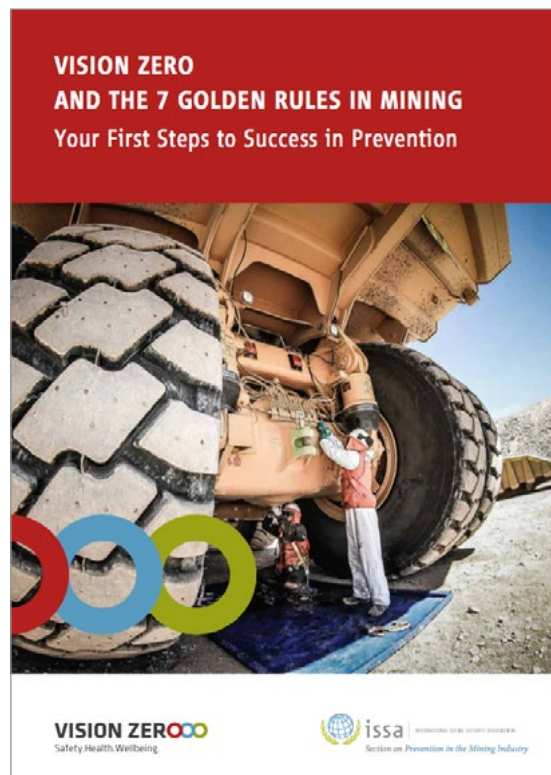
- Regional launches.
- A global outreach (<http://visionzero.global/>).
- Products and promotion materials (<http://visionzero.global/resources>).
- Guides (http://visionzero.global/sites/default/files/2017-09/2-Vision_Zero_Guide-Web.pdf).
- Powerpoint templates (<http://visionzero.global/Powerpoints>).
- Seven Golden Rules, complete with assessment checklist and survey tool, web app etc (http://visionzero.global/sites/default/files/2017-09/2-Vision_Zero_Guide-Web.pdf)
- A guide to 'zero accidents' (http://visionzero.global/sites/default/files/2017-09/2-Vision_Zero_Guide-Web.pdf)
- Promotion into targeted audiences (http://visionzero.global/sites/default/files/2017-08/Electricity_Vision_Zero_Guide_final.pdf)
- A training program (<http://visionzero.global/become-vision-zero-trainer>)
- A prevention strategy (<http://visionzero.global/sites/default/files/2017-09/Your%20First%20Steps%20to%20Success%20in%20Prevention.pdf>)
- Case studies (http://www.ilo.org/wcmsp5/groups/public/@ed_protect/@protrav/@safework/documents/presentation/wcms_422118.pdf)
- Video resources (<http://visionzero.global/videos>)
- And 'success' manuals. See Figure 27. *Zero Harm Succeeds*.

Figure 27. Zero Harm Succeeds.



Of course the talk of ‘success’ is ‘spin’. There is no definition of what success is and no evidence to demonstrate how the spin of zero improves outcomes in tackling risk. Of course, we also need a biblical numeric (https://en.wikipedia.org/wiki/Biblical_numerology) to associate with zero either in ten or seven Golden Rules. See *Figure 28. Seven Golden Rules*. Notice too the trinitarian three zeros, why not just one?

Figure 28. Seven Golden Rules.

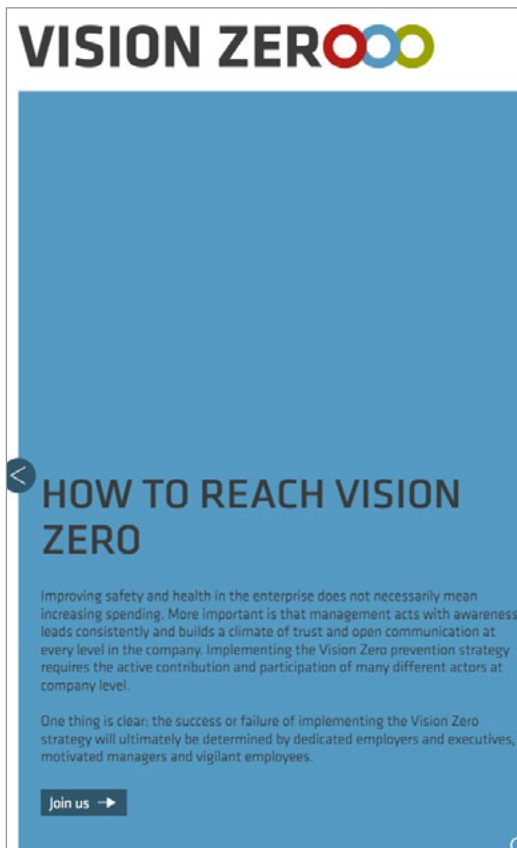


When one reads these Golden Rules none of these ‘steps’ in the manual are anything new. All that is presented in this Zero Vision campaign is marketing propaganda to give the impression that the zero ideology ‘works’ although there is no definition of what this means and there is no evidence anywhere throughout any of the materials. Even the case studies are at best anecdotal stories of hype and spin.

Many of the claims of this crusade has more in common with a MacDonalds advertisement on ‘nutrition’ than helping people face up to the realities of fallibility in tackling risk. For the undiscerning Zero Vision is the nectar of ‘promise’ accompanied by all the bells and whistles, trinkets and familiar tools of propaganda. Because it apparently ‘succeeds’ but noone actually knows what success in risk means.

Of course, there is a guide to help you reach perfection as in *Figure 29. How to Reach Vision Zero* which has no methodology or method but is a collection of truth claims and evangelical hype.

Figure 29. How to Reach Vision Zero.



The Crusade also has a mind map semiotic to stake out all the machinations of the zero vision journey as in *Figure 30s. Zero Vision Mind Map*.

Figure 30. Zero Vision Mind Map.



The mind map for Zero Vision is a collection of aspirations, generalist risk semiotics and motherhood statements with no evidential nor concrete concepts about tackling risk. If one notes the language of the mindmap it is all about covenant, commitment and faith.

As with all ideological propaganda the Zero Vision 'machine' is deeply religious and political. The politics of zero creates an 'us and them' culture, a binary in and out-groupness. Those who don't adopt the ideology and language of zero must be deemed 'unbelievers' because, 'we believe'.

If one runs even the slightest element of critical thought across all this propaganda one will see the following:

- A confusion in language that contradicts itself - that zero doesn't actually mean zero. Blurring boundaries in the sense and meaning of words is critical to all propaganda. eg. genocide becomes ethic cleansing, refugees and boat 'people' become economic refugees and 'cue jumpers'. When we rename people as objects we can do anything to them.
- A lack of definition about what zero means (concept, philosophy, mindset, aspiration, belief, transformational approach, vision, goal and process). All propaganda relies on a lack of definition and this enables acceptance without criticism, 'blind faith'.
- The 'branding' of things as 'factual' that are without evidence and use of emotive and iconic language is profoundly religious. The attachment of belonging to a 'feeling' rather than evidence is a central characteristic of all propaganda.
- The promise of Nirvana and Utopia. The time when all accidents and mistakes will be eliminated. When Utopia in the workplace will come and fallibility and mortality will be made perfect. The promise of a 'new kingdom' and 'rule' is essential for all propaganda.
- No evidence of questioning or doubt. This is all 'global' and one needs to get on board. This creates the political and moral imperative that isolates criticism and turns critics into 'agnostics' and 'atheists'. It's better to say 'I don't know' than to commit in contestation to the zero juggernaut. This was the response of the Safety Institute of Australia (<https://safetyrisk.net/sia-has-a-bet-each-way-on-zero/>).
- Apparently this zero vision is 'flexible' and 'adjustable' even though the language is absolute and symbology of zero denotes intolerance and the discourse of perfection (http://visionzero.global/sites/default/files/2017-09/2-Vision_Zero_Guide-Web.pdf p.3)
- The hidden and unstated binary ideology (http://visionzero.global/sites/default/files/2017-09/2-Vision_Zero_Guide-Web.pdf p. 3) that: Accidents at work and occupational diseases are neither determined by fate nor unavoidable – they always have causes. By building a strong prevention culture, these causes can be eliminated and work related accidents, harm and occupational diseases be prevented'.
- The first casualty of any propaganda campaign is the desire for truth telling. Propaganda serves to build Sunk Cost that is essential to conversion and political commitment. In this way it makes it nearly impossible to deny because it implies a break in belonging and relationship that is brought about by one's 'pledge'. Making pledges, covenants and commitments in conversion is one of the key strategies in fundamentalist conversion strategy.
- Cognitive dissonance is also strongly evidenced in this campaign . Once a belief system is in and accompanied by a costly campaign, the chance of questioning, changings or moving anything is extremely costly emotionally and psychologically. Even if one has accepted the propaganda as a passive observer, it makes it twice as difficult later to question the nature of the propaganda.
- Many of the strategies invested in propaganda campaigns were first used effectively by that famous Social Psychologist Dr Josef Goebbels (Ellul, 1973). You can read much more about propaganda strategies here:

<http://psi312.cankaya.edu.tr/uploads/files/Welch,%20Third%20Reich--Politics%20and%20Propaganda,%202nd%20ed.PDF>

<http://bths.enschool.org/ourpages/auto/2014/2/4/34651180/Goebbels%20Principles%20of%20Propaganda.pdf>

All propaganda is framed in binary either/or questions: 'Do you want people harmed?' or 'how many people do you want killed today'. Binary questions are common to all propagandist rhetoric eg. Do you support the war on terror?

Binary Questioning

Binary questions are questions of entrapment; there are no options out, only a commitment to one view or its opposite. Let's look at how this logic works.

If I ask you: 'do you believe in God' and you say 'no' then I can reply, 'oh well, you must be a devil worshipper'.

Yet in reality, there are many middle positions, one can also be an agnostic (I don't know) or an atheist (I don't believe). However, the binary questions only accept black and white, there is no grey.

In reality one can be political, anti-political or a-political, one can be passionate, dis-passionate or a-passionate. There is nothing wrong with taking a position of non-commitment and standing in the middle. Binary opposition thinks that if you deny an assertion, you must affirm its opposite. Binary oppositionalism is based on simplistic and immature reasoning (https://en.wikipedia.org/wiki/Binary_opposition) and deserves no answer, the questioning style itself must be exposed and rejected. You can see my video on binary opposition here: <https://vimeo.com/172195306>

Binary thinking is a method that propaganda uses to shift people from complex to simplistic thinking. For example, the kneeling protests in the USA in 2017 were shifted from a mature approach to debate about prejudice to an 'either or' choice about loyalty to the flag and patriotism (<http://www.abc.net.au/news/2017-09-29/bend-the-knee-protests-are-an-act-of-patriotism-stanton-grant/9001782>). 'Fake news' is also a tool of propaganda. Through the branding of 'fake news' the real issues and ideology are 'hidden' by the propagandist in simplistic binary logic. Unfortunately, very few people question the questioning itself nor the simplistic assumptions hidden in binary questioning.

The truth is you don't need the language and discourse of zero absolutes to care about people or to effectively tackle risk. Indeed, the trajectory of zero language is ultimately the dehumanizing of others and offers no hope for fallible humans in work.

There is no evidence that any of this Zero Vision propaganda is either meaningful or connected to effectively tackling and managing risk. Declaring that you are 'loyal' to zero or a 'zero visionist' or a 'believer' doesn't change anything. Indeed, it creates a more dangerous culture as demonstrated by Dekker (2017, Zero Vision: enlightenment and new religion. *Policy and Practice in Health and Safety* <http://www.tandfonline.com/doi/full/10.1080/14773996.2017.1314070>).

Zero Vision has now become a socio-psychological 'coordinate' that locks and 'anchors' language into a social contract of absolutes and sets up the denial of fallibility. The discourse of zero creates a 'meconnaissance', a twisting of evidence so well articulated by Lacan (<http://faculty.wiu.edu/D-Banash/eng299/LacanMirrorPhase.pdf>). This is the world of 'fake news'. The goal of projecting something as 'fake news' is to create confusion and to twist thinking so that it retreats back to simplistic options.

A culture of misrepresentation is built on the false anthropology of the perfect human.

The reality is: in this life you will be harmed, you will get sick, you will suffer and one day will die. The world is not a safe place. This is not a statement of fatalism, but its denial is delusional. How we speak in denial of



fallibility creates nonsensical language, nonsensical symbols and absurd ideology that needs a transdisciplinary code to break it. Social psychological knowledge has the mental equipment needed to critique propaganda as a social psychological problem. Unfortunately, training focused on compliance, obedience, regulation, policing and golden rules simply doesn't have the mental equipment to 'discern' the indicators of propaganda nor its religious worldview.

Every day we affirm our fallibility and fundamental necessities that cannot be denied. Humans need everyday: sleep, water, food, shelter and belonging. Without these humans will very quickly get sick and die. Every time you need to eat, you affirm the necessity of your own fallibility and mortality. The denial of necessity is the propaganda of zero and the foundation for believing lies.

Assertion is not evidence despite that fact that one claims that one is doing 'science'. The Zero Vision mantra is the nonsense language of 'all accidents are preventable'. How on the real earth can such language make sense? All accidents are not preventable, and to speak such nonsense simply creates skepticism and cynicism for those who live in the real world. So, when an accident happens in organizations that speak like this what is the trajectory? Of course, blame. Zero is not just a goal, it is cultural language and ideology. Keep speaking perfection to fallible people and see what happens.

Zero Vision

In a recent article by the Zero Accident Vision (ZAV) machine (<http://ehsdailyadvisor.blr.com/2017/05/zero-accident-vision-implementation-lessons-abroad/>) the following was claimed:

... companies with ZAV programs reported high levels of commitment to safety communication, safety culture, and safety learning.

So, what about companies that don't speak the nonsense of zero who achieve the same?

Of course there is no evidence to support any such assertions especially any suggestion that commitment is better in ZAV companies. Indeed, most people I know who have been sacked from ZAV companies tell me consistently of brutal cultures, unforgiving regimes of absolutes and intolerance. One could easily find non ZAV organisations that report: 'high levels of commitment, safety communication, safety culture, and safety learning.'

Of course, the article reframes what zero actually means and we find out that zero doesn't mean zero, again the strategy of propaganda. Only in the risk industry could one find such nonsense language about redefining words to suit assumptions. According to the article zero now doesn't infer a number but rather 'an ambition to make work safe'. Strange, I don't need zero to help me do that indeed, I can do that better by simply caring for people.

Unfortunately the ideology and language of zero has only one trajectory and it can't be care for humans. When one speaks the language and semiotics of an absolute number to fallible people it can only tell people that the love of zero is the love of numbers and objects.

There is no discussion or evidence or measures in the article about how commitment is defined or what commitment means. Why not? This is a religious article and like the Safety Congress mantra you just need to believe, you don't need evidence.

Finally the article speaks about communication when the whole purpose of zero is not to communicate. There is nothing about the ideology of zero that humanizes people, nothing about zero discourse that acknowledges what it is to be human indeed, it is a flight from fallibility in the crusade about objects.

I'd much rather read about how people care for each other in tackling risk than this nonsense about a number as a goal and the dehumanizing language that goes with it. I'd much rather be encouraged by how people accept the fallibility of humans and tackle risk. I'd much rather read about the realities of tackling risk and learning than this love of zero propaganda.

Zero and Truth Telling

One of the essentials in investigations is truth telling. The dynamics of zero in organizational culture mitigate against truth telling. 'Honesty may be the best policy' but 'blame is the big game' when it comes to investigations, especially in zero organizations. It is not possible to create an open and honest investigation in a culture of intolerance. Zero tolerance culture is a sure fire way to quash truth telling.

The essential skill of opening questioning and the power of confession is essential for ownership and change and are foundational to all counseling and investigation. Any drive that creates hiding, deception and denial is anti-therapeutic, anti-cathartic and anti-learning. When someone confesses to a wrongdoing or mistake there is opportunity for forgiveness and learning. This is one of the essentials of pastoral counselling and effective investigating. The skills of open questioning, truth telling and seeking confession are essential to organisational learning.

The Truck Roll Over

I was once involved with an investigation regarding a truck roll over. Generally someone calls me after an investigation has expired and they have found the conclusion that is quick and easy but completely untruthful. By the time I get involved in any investigation the subconscious damage has been done. Most investigations methods on the market are profoundly mechanistic, reductionist and informed by STEM-only rhetoric.

The young driver concerned was threatened by the whole investigation process and had engaged a lawyer from the outset at the advice of his parent. It was clear that the investigators didn't have any skills or training in counseling or reflective listening, no skills in open questioning and little interest in truth telling. By the time I had arrived on the scene the company got the story they needed, the blame required and the sacking-payout-scapegoat they sought to appease the zero ideology of the organization.

The investigation was undertaken by the Zero Harm Advisor. If that was the job title of someone coming to investigate me, I wouldn't want to talk to you. By the time I encountered the young person two weeks after the event what he had really learned subconsciously was about the toxicity of the organisation, the bias of the investigator, the lack of empathy by the company, the righteousness of zero and a quest for a victim. He had also learned through the hidden curriculum that honesty is not the best policy.

The topic of truth telling has been in the airwaves since the inauguration of the Trump Presidency and more recently with the investigation into the Comey sacking (<http://www.abc.net.au/news/2017-05-10/here27s-how-the-sacking-of-the-fbi-director-unfolded/8513522>). What we learn from this circus is that blurring information and spreading 'fake news' is rarely named as propaganda and that 'weasel words' help people squirm out of truth telling. When the costs are great and the Sunk Cost even greater, deception, misdirection and doubt serve as effective tools to mask dishonesty.

We learn from **Merchants of Doubt** (<https://www.youtube.com/watch?v=pRenGy0cg5s>) that one doesn't have to technically lie to distort and shift focus to doubt as a method for avoidance and self interest. This is the technique of all propaganda.

Truth telling is expected as a foundational ethic in journalism as demonstrated by Kovach & Rosentiel (2014) in *The Elements of Journalism, What Newspeople Should Know and the Public Should Expect*. Investigative journalism is driven by the ethic of truth telling. Unfortunately, many in the risk industry are not well educated in the core elements of historiography, deconstruction, investigative or critical thinking and don't know how to tackle bias and assumptions in investigations.

Lee (http://dlib.nyu.edu/undercover/sites/dlib.nyu.edu.undercover/files/documents/uploads/editors/Lee_Lying.pdf) discusses the nature of deception and demonstrates the kind of critical thinking skills required to deconstructing text, testimony and semiosis. Again, skills not provided in risk industry curriculum. Most curricula



I have seen that purports to be about critical thinking is mostly about classification not thinking in the tradition of critical theory and discourse.

Truth telling is also an expected ethic in law and investigation (http://sand-kas-ten.org/ijm/Chapter_8.pdf). The issue of truth telling and the law is also discussed in Greg and my book *Risky Conversations, the Law, Social Psychology and Risk* (2017). In one of the 22 videos in the book series we discuss how the ideology of zero quashes truth telling in our discussion on fear (<https://vimeo.com/166935963>). Fear of breaking the ideology of zero is a cultural artifact of the zero discourse.

When numerics are paraded out from week to week and month to month the subconscious message is, don't be the next number. When it emerges in an inquiry that the culture of the organization suppressed truth telling such as in the DeepWater Horizon Disaster (<https://vimeo.com/163499152>), the court has a field day. The BP ideology of zero played a significant factor in quashing and distorting truth telling on the rig.

There is an intimate connection between catharsis, truth telling and learning. If learning is the goal not a number, then truth telling must be present in organizational culture. People who learn that a confession develops ownership and that ownership creates change, know that investigation style in investigation-for-learning is critical. This is where pastoral counseling skills are most helpful in investigations training. The core pastoral counseling skills that are helpful are: reflective listening, open questioning, suspending agenda, framing, priming, anchoring, unconditional positive regard and 'attending'.

How can one expect truth telling when the ideology of an organization creates a culture for suppression by speaking language in absolutes? How does the discourse of zero and associated intolerance quash truth telling? Just run a discourse in your own home of zero tolerance and zero mistakes and find out how quick the kids learn to tell you whatever you want to hear.

Zero Orthodoxy

Since publishing *For the Love of Zero* (2012) it seems that more and more organizations are using the language and discourse of zero as an orthodoxy to validate authenticity in managing risk. Nearly every Tier One company lists as being a Zero organisation. In its very brief history of less than thirty years the language of zero in the risk industry has become ubiquitous. In a simple Google search I entered the words 'risk', 'safety', 'security' and 'zero' and the following are indicative of how much zero discourse floods the market in the risk industry.

- BMD (Construction): <https://www.bmd.com.au/the-bmd-way/zero-harm/>
- Brambles (Zero Harm Charter including Zero Human Rights breaches): http://www.brambles.com/Content/cms/pdf/Sustainability/2792_10000000.pdf
- Continental Tyres (Road Safety): <https://www.continental-tires.com/car/media-services/visionzeroworld/why-vision-zero/20160628-why-vision-zero>
- Downer (Zero Harm as a value): <https://www.downergroup.com/health-and-safety>
- Phase Zero (Risk Management): <http://www.phasezero.com.au/about-us.aspx>
- Programmed (Safety): <https://programmed.com.au/safety/zero-harm/>
- Pybar Zero (Mining including statistical injury rates): <http://pybar.com.au/safety-zero-harm-zero-compromise/>
- Safe Work Australia: <https://www.safeworkaustralia.gov.au/book/south-australia-zero-harm-project>
- Siemens (Zero Harm Culture): <http://www.nsbluescope.com/about/health-and-safety/>
- Strategy Dot Zero (Design): <http://www.strategydotzero.com/>

- Target Zero (Mining): <http://www.clough.com.au/sustainability/target-zero>
- Toward Zero (Transport for NSW, Road Safety Victoria including rising road fatality statistics): <https://www.towardszero.vic.gov.au/>
- Volvo Trucks (Road Safety Zero Accidents): <http://www.volvotrucks.com/en-en/our-values/safety/zero-accidents.html>
- WorkCover Queensland (Leadership): <https://www.worksafe.qld.gov.au/construction/articles/zero-harm-at-work-leadership-program>
- Zero Accident Vision (Europe safety Agency): <https://osha.europa.eu/en/wiki-page/zero-accident-vision>
- Zero Harm (Safety): <https://zeroharm.com.au/>
- Zero Harm Safety (Fire and Electrical): <http://www.zeroharmsafety.com.au/careers/>
- Zero Residue Carpet Cleaning: <https://www.zerorezatlanta.com/>
- Zeo Risk App (Security): <http://www.zerorisksecapp.com/>
- Zero Risk International (Risk Management): <https://zeroriskinternational.com/>
- Zero Risk HR (HR): <https://www.zeroriskhr.com/>
- Zero Suicide Alliance (Health Promotion) <http://zerosuicidealliance.com/>
- Zero Suicide (Well Being): <https://zerosuicide.sprc.org/>

Zero Ideology as Unethical

One of the strange justifications for zero ideology is the claim that there is no other ethical goal. The only way such thinking can make sense is if one accepts the binary assumptions of the zero black and white mindset. The either-or mindset justifies a discourse in adversarialism which is unethical.

An 'ethic' is essentially a moral system. The etymology of the word 'ethic' is from the Greek *ethos* meaning customs, culture, habits and mores of people. The focus of an ethic is how to live rightly for the good of others and society. Whilst this should sit well with the risk industry it does not. As we see from the XXI World Congress on Safety and Health at Work 2017 Accord the focus on objects, science, systems and engineering draws the risk industry into internal conflict. On one hand Safety wants to avoid policing (<https://safetyrisk.net/safety-as-policing/>) and on the other does everything in its discourse and language to an enforcement culture through numerics and the mechanics of objects.

An ethic of safety can only be holistic if it takes into consideration the focus of an ethic itself, fallible humans. How can it be ethical to speak a language of absolutes to fallible people? What kind of moral system will one create when the discourse of zero frames Risk Management as an absolute yet the systems, organizing and subjects of the system are all fallible?

Absolute language and discourse can only drive the vice of brutalism. You can't say on one hand that you care for someone then on the other preach intolerance as a moral virtue? How can one seek a learning organization when the language and discourse of zero prohibits movement, mistakes, trial and error, change and learning?

Zero Ideology as Nihilism

The ideology of zero is the ideology of *nil*. When life takes on the value of nil then all life is denied, dehumanized and depreciated. Dehumanization of humanness is based on the acceptance of fiction as non-fiction. It is by fiction that humans are able to dehumanize and falsify. Humans dehumanize others through language that frames a worldview of 'otherness'. There is no dialectic or exchange in the alienation of otherness, the other

becomes the enemy. Life then takes on the value of the archetype of *nil* as it denies movement and learning and paradox is depreciated. We can harm anyone whom we alienate through language, symbols and grammar.

Nietzsche has his character Zarathustra posit the *Übermensch* - The Overman, as a goal-vision for humanity to set for itself. The Overman is the superhuman, transhuman and beyond-human who stands in distinction to Christian anthropology that Nietzsche attributes as promising only hope in heaven. It is in Christian other-worldness that Nietzsche understands the Christian ideology as life-denying. Nietzsche argues that Christian values are against life because they validate fallibility and weakness in seeking escape from this life. The *Übermensch* then becomes the goal for the perfect human not the weak fallible human who trusts in God and 'higher values' such as empathy, care, pity or compassion. Nietzsche saw that in Christianity humans were made weak by an omnipotent God and that this weakness robbed humans of wholeness. He asserted that the projection of God through human finitude and vulnerability robbed humanity of any god-like qualities. The *Übermensch* doesn't need this God but rather transcends the limits of weakness in Christian philosophy by 'the will to power', mastering one's own instincts. The *Übermensch* become the master of themselves.

The meta narrative of the absolute embedded in nihilism creates the binary foundation to reject the 'other', the dialectic and negate any sense of mediation. The will to power is achieved by perfection in the absolute but is also the will to annihilate all non-compliance and disagreement. The will to annihilate the other is the will for self. This is the will to nihilism. This was evidenced in Nazi eugenics and death camps. The drift into eugenics is also evident in the risk industry as it seeks infallibility and the elimination of risk (<http://www.selectinternational.com/online-safetydna-assessment-and-development-program>). In the *Übermensch* fallibility must be rejected in search for the vision of *nil*.

In Nietzsche the Christian God is dead because such a God subjects the vision of humans confined to the fallible. Human fallible will creates human error and inhibits the will of the hero. In weakness and vulnerability, human error is deemed ignorance, bad faith and misfortune and these disrupt any hope of Zero. Passive alienation through the quest for *nil* comes in the form of: sackings, marginalization, non-membership in zero clubs, silence, language of otherness, the rejection of fallibility language and, discourse about absolute values. In the end the will to *nil* is the negation of all will, for human choice in fallibility hinders the ideological success of zero.

Unfortunately for *nihil*, Zero has a mysterious way of turning in on itself. When Nietzsche opposed the dream of Christian otherness and heaven he created a new otherness of nihilism and negation of the real world. This is how the will to nothingness was expressed in Nietzsche's 'higher values'. For Nietzsche empathy, care and pity were the values of the powerless, the weak, the tolerant, the sick and suffering. Nietzsche directed his criticism against all dialectic, arguing that the dialectical man was no longer anything but a man. The Overman on the other hand was beyond the ideology of the Christian man.

In reality, what Nietzsche rejects is the tyranny of the church-as-Christianity, misunderstanding both the nature of fallibility, soteriology, teleology, eschatology and Christology. Nietzsche proposes the Eternal Return, a cosmology of continuing cycling of energy in opposition to the Christian Eschaton. Christian theology rejects the notion of the Eternal Return as a philosophy of meaninglessness - hence nihilism.

There are many aspects of nihilistic rhetoric and discourse evident in the ideology of Zero.

Zero Suicide

The headline was 'A Bold New Fight to Eradicate Suicide' in a feature article in The Guardian 1 August 2017 (<https://www.theguardian.com/society/2017/aug/01/zero-suicide-the-bold-new-fight-to-eradicate-suicide>). The story is told of yet another sad case of suicide, a 'gifted' young person decides to end their life at the age of 18. As sad as this story is and many other stories associated with the thousands of youth suicides across Europe in 2017 this doesn't make the binary ideology of zero any more sense-able. Just because you would wish to eradicate something doesn't mean you should then speak nonsense to people.

In this case, the quest to eradicate suicide across Europe has been called 'Zero Suicide'. The article states: 'a bold ambition and slogan that emerged from a Detroit hospital more than a decade ago, and which is now being incorporated into several NHS trusts'. Since when is it 'bold' to speak nonsense to people? In what real world does the wish for Nirvana and Utopia translate into speaking absolutes to fallible people?

In another article on 15 June 2015 in *The Atlantic* (<https://www.theatlantic.com/international/archive/2015/06/vision-zero-suicide-sweden/394994/>) Rothchild asks 'Is it Possible to Eliminate Suicide'? Citing the attributed success of the zero campaign in Swedish traffic Risk Management the author states that any death is unacceptable so zero must be the outcome. The binary logic and foundation appears again. In this article the author introduces the idea of 'zero vision thinking', an ideology for eliminating all death. The Christian Democrats in Sweden also want to institute a Zero Abortion Campaign, demonstrating just how ethically complex issues are ignored by binary absolute language.

In response to the government's Zero Vision campaign a prominent psychiatrist David Eberhard in his 2007 book *I Trygghetsnarkomanernas Land* (*In the Land of the Safety Addicts*), Eberhard argued that Swedes have developed an unhealthy avoidance of accidents and hazards at all costs, which has made them less capable of dealing with life's risks and misfortunes.

Eberhard states:

... the zero-suicide program is not only unrealistic but also undesirable. "Of course all of us who work within psychiatry want to reduce suicide rates, but Vision Zero is a fantasy dreamt up by politicians with a lack of insight into science and into how psychiatry works,

In the Guardian article, typical spin associated with zero language, the word zero is retranslated to not mean zero:

The zero approach is a proactive strategy that aims to identify and care for all those who may be at risk of suicide, rather than reacting once patients have reached crisis point. It emphasises strong leadership, improved training, better patient-screening and the use of the latest data and research to make changes without fear or delay.

Interestingly the language of zero is described as 'an approach', a methodology. What the binary mindset cannot tolerate is the idea that taking an approach of minimization or compromise is somehow 'an old idea about the inevitability of suicide'.

What we see here in this article and campaign is the absurdity of simplistic binary thinking. At no place in the article is there any connection between the causes of suicide such as: poverty, loneliness, isolation, mental health issues, breakdown in relationships, alcoholism, social media bullying or depression. In the face of these significant human challenges the language of zero looks remarkably stupid. How in the real world can speaking absolutes to fallible people in a fallible world be motivating?

The article tells the story about the approaching 500th suicide on the Golden Gate Bridge and how suicides were reduced by building barriers on the bridge. A similar tale can be told of the tragic death of a young girl thrown off the West Gate Bridge in Melbourne Australia and the construction of barriers (<http://www.heraldsun.com.au/news/law-order/darcey-freeman-thrown-from-the-west-gate-bridge-in-horrifying-murder-that-still-haunts-melbourne/news-story/f64ac661b33c8401435a167b29a1a623>). As a result of the building of the barriers on the West Gate Bridge the suicides on the Melbourne Rail Network doubled overnight leading to the unethical Dumb Ways to Die campaign, branding suicide on the rail network as 'dumb'. A more detailed critique of this unethical campaign is here: <https://safetyrisk.net/dumb-ways-to-die-and-a-strange-sense-of-success/>

Zero Risk Bias

The whole zero mindset is known as the 'zero risk bias' (https://en.wikipedia.org/wiki/Zero-risk_bias). The zero risk bias totally ignores the realities of paradox, ambiguity, trade-off and by-products in



understanding the world and human judgment and decision making. The zero risk bias is so blinded by a binary worldview that it ignores every reality about fallibility. It turns the language of 'wishing' into an ideology of the absolute and so must drift into the religious trajectory of inquisitions, commitments, campaigns and crusades because all harm and death must be eliminated. Suicide becomes an anathema in zero suicide in a similar way as suicide used to be criminalised.

The language of 'zero suicide' psychologically criminalises those who decide to end their life. Similarly as Melbourne Metro brands anyone who suicides on their network as 'dumb' see further: <https://safetyrisk.net/dumb-ways-to-measure-effectiveness/> The Dumb Ways to Die campaign has been active for more than 5 years and recent statistics demonstrated that the campaign and its associated discourse simply don't work: <https://safetyrisk.net/dumb-ways-to-die-doesnt-work/> the statistics for suicide on the Melbourne Metro network are increasing not decreasing.

In the Guardian article zero is labelled as: a 'goal, strategy, tag line, approach, scheme, policy, absolute view and mindset', all indicators of an ideology. So, the Zero Suicide Foundation has been established and on recent reports suicide is suicide in the UK increasing not decreasing.

Zero Covenant

When you don't know what to do about risk chose a dumb down binary discourse. Here is the latest from Safework NSW <http://www.safetystartswithyou.nsw.gov.au/safety-promise>

There's nothing more reliable for dumb down than the core principle: 'If it didn't work last time, lets do it again'.

Beller (Beller, S. (2002). *Conditional promises and threats – Cognition and Emotion*) demonstrates that promises and threats are semiotic speech acts that operate on the unconscious. Promises create a conditionality for thinking, decision making and behavior. A promise is a social psychological contract and when recorded in writing poses significant problems for the future, especially depending on who one makes that promise to. A reading of Gordley (2004, *The Enforceability of Promises in European Contract Law*) shows that promises create enforceable social undertakings.

So with a promise, people seek a commitment to something and with all the best intentions in the world make that promise. Where does this put you when you make a mistake or when something goes wrong? How will your promise be interpreted then? But you made a promise, in writing?

What is the social psychology of making a covenant or a promise? What do we think of politicians as a result of them making promises? Remember John Howard, 'no GST under my government' or Julia Gillard, 'no carbon tax under my government' and Bob Hawke, 'no child in poverty'. When a promise is broken, no matter how small it may seem to you it can damage a relationship or perceptions of your integrity. Think about it — when someone else breaks a promise to you, or gets caught in a lie, doesn't that make you feel violated or cheated? You can't help wondering whether you were wrong to ever trust that person. A promise is also a metaphysical and theological idea and is associated with the covenant between the Children of Israel and the biblical god.

Keeping promises is considered a measure of one's worth, we value being 'as good as our word'. Yet each of us struggles to keep even the smallest of promises, often feeling like failures when we've been unable to do so. There is nothing quite like fallibility, chance, uncertainty and mortality to spoil the best of intentions and promises.

The idea of a 'safety promise' was first brought in, failed and dumped by Du Pont 20 years ago. It's now just long enough for people to forget about its ineffectiveness and put it on the carousel once again. Unfortunately the longitudinal trajectory of such a strategy is an erosion of trust and increased dumb down for an industry already bombarded with Hazardman, Dumb Ways to Die, Zero Harm, Bloody Idiot campaigns, all accidents are preventable and, a host of campaigns essential to non-critical thinking.

Trust is built through a series of experiences shared with others (<https://www.kent.ac.uk/scarr/events/Mollering.pdf>). When behaviour is consistent, faith in the relationship develops. When promises are broken or people seem misled, the bonds of trust are breached.

What happens then with the recording of incident data? Is each record a testimony of your non-commitment to tackling risk? Is each a record of your broken promise?

Broken promises imply that the offenders either didn't think before making the promises, need to be punished for going back on a promise or don't care that they've let you down. So, be careful about the promises that you make and with whom you make them.

An exploration of the language of this Worksafe campaign is instructive. Observe the framing and priming. Safety doesn't start with 'us', it starts with 'you'. So typical of regulator language, always a projection onto others. And don't forget to get your 'safe app' to help you 'comply'. Have a good hard look at your self, the problem can't be on our side of the mirror. Apparently 'making a promise helps achieve a healthier and safer workplace'. Strange, it didn't work for DuPont when they tried it.

Who in their right mind is going to make a promise to an organization that might later show up to prosecute you? Look at the last campaign of 'we will catch you out', or the language of having a 'blitz'. Here is the real intent. I can just see this promise document coming out in a court of law to demonstrate the contradiction in what you said you would do and what you really did? Of course this is how your paperwork is used against you in court, as Greg Smith says: 'Your paperwork is sometimes your biggest legal liability'.

As Greg Smith reiterates, 'some organisations are simply building a database to demonstrate a lack of Due Diligence'. <https://vimeo.com/162034157> Is this where your promise will end up? Will your failed promise and projected guilt be attributed as evidence for a lack of commitment to Risk Management?

The best place to start with tackling risk is with language of social inclusion. Unless we understand a Social Psychology of Risk it will just be wave after wave of more guilt, more promises, more binary zero, more projection and nothing will change.

Workshop Questions

1. What religious symbology and language is used in your workplace in association with tackling risk?
2. How is language and symbology used religiously in your organisation?
3. Where is this located and what is the underlying discourse? ie. where is the power?
4. How is doubt and questioning fostered in your organisation?
5. What justifications are given for the necessity of compliance with language and symbology?

Transition

We move now to how the risk industry tackles risk through common tools such as the Risk Matrix, the Injury Pyramid and the Bow Tie as examples of Risk Management theatre. The purpose of Risk Management theatre is to make people comfortable with uncertainties in tackling risk. The reality is that most of the symbolic tools and models constructed under a STEM-only paradigm for managing risk, don't effectively help in managing risk. The symbols and myths associated with Risk Management have simply created new sacraments-as-method. These sacraments are only understood by the initiated and somehow mystically demonstrate that risk is being managed, when in reality none of these tools really help in tackling risk. There is more evidence here of faith/belief than any consistency with STEM-only thinking and its quest for measurement.

CHAPTER 4

4

Comfortable in Fallibility

The cosmicization of unknown territories is always a consecration. - Mircea Eliade, The Sacred and Profane

What happens when people who are inclined to take risks talk to other people who are inclined to take risks? The answer is that they become still more inclined to take risks. - Cass Sunstein, Going to Extremes.

There is a certain necessity to the 'objectivism' of structuralism, precisely in order to establish language as an 'object' and structuralist analysis as a 'science'. - Don Ihde, The Conflict of Interpretations

Creating a society that goes against human nature is what creates the suffering ... we live in a completely unnatural society, that actually tramples on what it means to be a human being. That's the essence of suffering, and there are so many ways in which our society does that. - Gabor Mate, Toxic Culture

Discomfort Needs Myths

The purpose of this chapter is to draw out the creation of risk mythology. Remember, mythology is not about falsehoods as fables but rather the construct of meaning to help manage equivocality and uncertainty. Similarly the chapter seeks to demythologise these symbols/myths not in order to destroy them but rather to show that the risk industry has drifted into its own religiosity through the construction of methods and models as meaning. The construction of meaning is the work of semiosis.

The chapter explores a number of symbols and associated myths that have become sacred to the industry yet have no effective purpose in tackling or understanding risk. Rather, like all symbols and myths, they build a religious sense of comfort and belonging to explain the struggle with fallibility. These myths and associated symbols are attributed with efficaciousness when there is none indeed, as Greg Smith demonstrated in *Tackling Risk, The Law Social Psychology and Risk*, these methods, models and myths hold no value in court to demonstrate the effectiveness of systems. The symbols demythologised in this chapter are: The Risk Management Process Model, The Risk Matrix, Injury Ratio Pyramid and The Bow Tie. The deconstruction of these symbols serves to highlight that all symbols used by the risk industry such as: dominoes, icebergs, triangles and swiss cheese are semiotic religious constructs not STEM definitive tools.

Just as we know that the purpose of poetics and metaphor is to resist reductionism, definition and control, so too has the risk industry drifted into the use of metaphor, symbols and myth to try and explain the inexplicable, the paradox of fallibility. Unfortunately, STEM-only has no understanding of semiotics, myth and poetics and so drifts into poetics in its own semiotic incompetence finding itself adoring the ideology of zero in denial of fallibility.

What these models, symbols and myths provide is a heuristic and theatre for the risk industry to appear as if they know how to tackle and control risk and disarm the paradox and ambiguity of fallibility. The reality is that these tools create dangerous by-products and involve absurd trade offs that create new risks such as ill founded overconfidence, the denial of doubt and complexity and, the elimination of critical thinking, all critical for tackling risk.

The Acceptance of Fallibility is Not Fatalism

Being comfortable with the human condition in fallibility need not be a resignation to fatalism, this is the binary trap. Being comfortable with fallibility is the key to authenticity and being fully human. It is when humans become comfortable with fallibility that they cease to speak nonsense to others and work realistically on the problem of risk. Nonsense discourse that denies fallibility simply creates delusional attributions that in themselves become a mask for ineffectiveness.

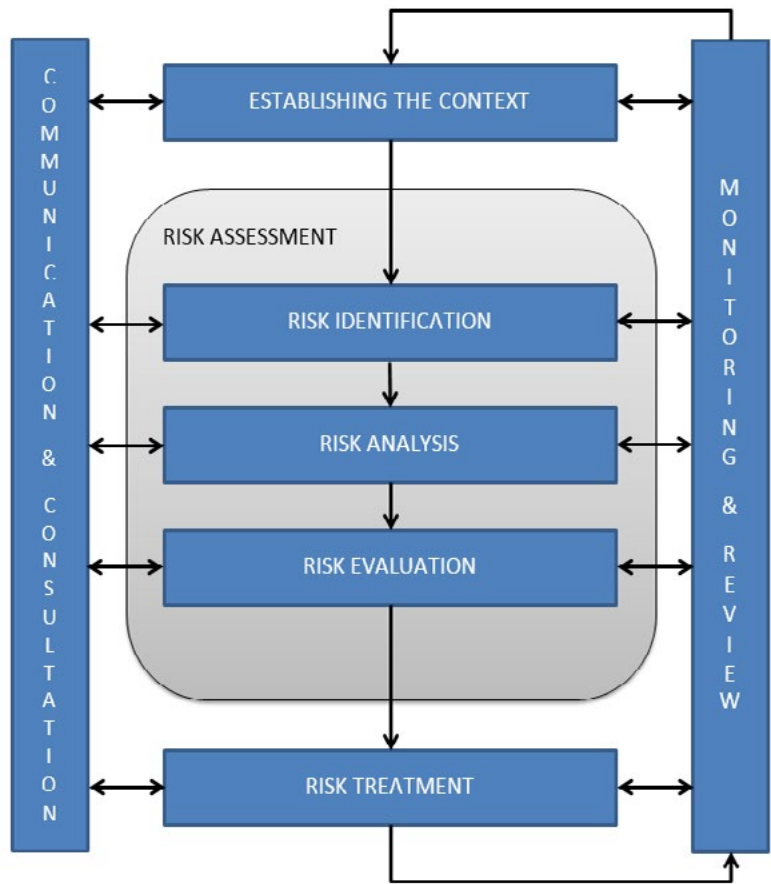
The symbol or myths discussed in this chapter illustrate symbols wrapped up in STEM-only language and numerics but their effect and effectiveness can only be properly understood semiotically. Attributing effectiveness to a symbol or model doesn't make the symbol or model effective in understanding and tackling risk. None of these examples of risk models and symbols discussed in this chapter could ever be presented in court as evidence that one's systems were effective or indeed as a scientific demonstration of managing risk.

The Risk Management Process

Within all of the structuralist and positivist assumptions of STEM-only thinking we see demonstrated such extraordinary blind spots in education, curriculum and bodies of knowledge. For example, the Security Risk Management Body of Knowledge (SRMBoK) has its focus entirely on process, objects and mechanisms for Risk Management. There is next to no mention of people, culture, social psychology or many critical factors that precede any risk analysis or management in the SRMBoK. It is as if the Risk Management process is some objective process that is divorced from the humans that enact it. So whilst the SRMBoK is packed with models of reductionist ideology and Bow Ties the critical aspects of cultural context and discussion of the fallible human are missing.

If we look at the Risk Management Process (p.14) model in Standards Australia *AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines* we see just how much is missing from orthodox understandings of Risk Management, see *Figure 31. The Risk Management Process*.

Figure 31. The Risk Management Process.



The risk industry has evolved through a yearning for control and security. This is often politicized through the objectivizing of risk (Douglas, 1992, pp. 11-19). The influence of STEM-only knowledge has commandeered the discourse in risk (Young, 1981) so that tackling risk is now understood as a mechanistic, technical and individualistic processes. The iconography of Risk Management demonstrates that Risk Management is understood as a reductionist process. The risk industry focus is on process, objects and systems. Even discussion of ‘human factors’ takes its focus on humans as a ‘factor’ in a system (CASA, 2012, p. 1). The language and discourse (Young, 1981) is consistent in its focus on objects.

The topic of Risk Management assumes a technical/mechanical process. This is demonstrated by the model of Risk Management in AS/NZS ISO 31000:2009 (Standards Australia. 2009, p. 14). Even the definition of risk is focused on process and objectives. There is no mention in the Standard about how people socially construct meaning (semiosis), how culture precedes and shapes the establishment of context or how hundreds of heuristics, cognitive biases or social psychological factors determine assessment, identification, analysis and evaluation. Moreso, in the treatment stage there is no mention of the highly subjective and conditioned nature of enactment (Weick, 1979, p. 130-132). On the basis of the Standard, Risk Management is framed as an objective process that people and organisations follow for safe outcomes. The SRMBoK (Talbot and Jakeman, 2009) takes a similar STEM-only approach.

When the Risk Management Standard AS/NZS ISO 31000:2009 (p. 16) there is no mention of the establishment of context, there is simply no mention of social psychological factors. In particular, the part semiotics plays in shaping culture and the 'collective unconscious'. Other critical aspects of context missing include consideration of: ethics, aesthetics, poetics, mimesis, and social politics. Understanding these through the Social Psychology of Risk (SPoR) in a transdisciplinary approach (Gibbs, 2015) is the future of risk. I have presented the nature of SPoR in my series of publications on risk (Long, 2012, 2013, 2014, 2016a, 2016b, 2017)

The Risk Management Standard seems to suggest that context can be decided objectively as if organisations are not social institutions. Douglas (1992, pp. 22-34) describes this as 'The Innocent Model' that is, the naïve belief that risk is objective and not socially situated. Humans are social-psychological beings and so context cannot be understood objectively rather, the risk industry must tackle the profound subjectivity of risk in understanding context. Similarly in treating risk, the same inclusions are required.

It seems that when the risk industry talks about the future the formula is to put new wine in old wineskins. Unless, the risk industry embraces a transdisciplinary approach to risk much broader than STEM-only knowledge it will remain bogged down in the excesses of bureaucracy and systems in tackling risk. The heuristical by-product of systems excess is a new risk called 'tick and flick'. Taleb (2012) provides an excellent articulation of this paradox. Indeed, Taleb and Amalberti both show that zero ideology manufactures organisational fragility.

Transdisciplinarity connotes a research strategy that crosses many disciplinary boundaries to create a holistic approach. For example, the disciplines of anthropology, social psychology, education, theology/religion, ethics, critical theory, cultural theory in the humanities are yet to make a contribution to the nature of risk discourse. If risk is a 'Wicked Problem' (Brown, and Harris, 2014) then transdisciplinarity is required to tackle it (Gibbs, 2015). The discipline of Social Psychology of Risk is just one of many disciplines that should be brought into the discourse on risk into the future.

The Risk Matrix as Sacrament

The challenge of assessing risk is by nature the assessment of uncertainty.

The Risk Management Standard AS/NZS ISO 31000:2009 defines risk as the: 'effect of uncertainty on objectives'. So, to assess a risk one has to either have knowledge of what is uncertain in which case it is not a risk or, one has to imagine what could happen based upon experience and history which means the outcome is not known. In other words a risk assessment is an act of imagination, creativity, discovery, critical thinking and adaptability, all skills that demand a worldview in poetics beyond STEM-only thinking. This means that most people in the risk industry who undertake so called 'risk assessments' are poorly prepared for what they do.

My definition of risk and hazard is:

Hazard: An object that is imagined to have the potential for harm.

Risk: The uncertainty associated with human action and the trust and faith required to suspend uncertainty to take that action.

Everything about assessing risk is subjective. Neither a hazard nor risk is a neutral thing that is not enacted by fallible humans. There is no such thing as an object that has its own 'damaging energy', this is just STEM-only mythology. Every risk and hazard can only be enacted by a fallible human which is why objects and activities are defined as a hazard of a risk. Objects and activities are only hazards and risk as far as humans are concerned.

Like any religion the risk industry has created its own set of immovable sacraments. A sacrament is a rite, act or object that is attributed efficaciousness. All sacraments are attributed with significance as symbols of effectiveness. The 'go to' sacrament of the risk industry is the Risk Matrix. How strange in an industry that rejects the notion of religious transcendence in STEM-only knowledge that it then adopts its own symbols and rites that are given efficaciousness when in fact they have none.

The Risk Matrix has emerged in time like many myths and symbols that get adopted in the risk industry. One thing is for sure despite its origins, it is not something that is likely to be ever eliminated from Risk Management mythology. The Risk Matrix is testimony to the power of semiotics in anchoring and influencing belief. It also demonstrates that once a ritual, icon, relic or symbol is adopted with religious salvic significance just how difficult it is to get rid of it, despite the fact that it doesn't demonstrate what people attribute to it.

The Risk Matrix is now included in every risk assessment mechanism such as Safe Work Method Statements, Job Safety Analysis, Enterprise Risk Analysis etc. The Risk Management Standard defines the Risk Matrix as a: 'tool for ranking and displaying risks by defining ranges for consequence and likelihood' see *Figure 32. Typical Risk Matrix*. The output of the Risk Matrix is somehow intended to be of assistance in defining a level of risk. In reality one would be better off consulting an ouija board for guidance. The following serve to define the Risk Matrix as perhaps the most dangerous invention of the risk industry:

1. The Risk Matrix uses a grid, table, colours and numbers to give an semiotic of technical assurance when there is in fact none. The Matrix by design creates a mythology just as any other semiotic. In reality it gives obscure value to a subjective ranking which is then changed according to a subjective control introduced by the risk assessor. Whatever that ranking it cannot be verified or agreed upon in common. Yet, a numerical value is attributed and then agreed upon as theatre associated with managing risk.
2. The Matrix is so subjectively arranged that there can be no numerical or scientific validity given to any ranking. This was demonstrated clearly by Cox in What's Wrong With Risk Matrices? *Risk Analysis*. 28 (2) 497-512.
3. The Matrix assumes that the assessor understand risk when the risk industry from a STEM-only perspective profoundly cannot comprehensively understand risk. This is because many disciplines that would contribute to understanding human decision making are excluded from the STEM-only paradigm. The following disciplines that contribute significantly to understanding human judgement and decision making in risk are not included in any risk curriculum, these are:
 - Social Psychology
 - Understanding the Unconscious
 - Semiotics
 - Anthropology
 - History (including: critical and cultural theory)
 - Theology (including: soteriology, religion-culture, metaphysics)
 - Ethics
 - Sociology
 - Literature
 - Poetics (including: art, dance, gesture, play and music)
4. So, without a transdisciplinary approach to risk a STEM-only paradigm can only bring a mechanistic-reductionist worldview to the analysis process. Most Matrix users do not have transdisciplinary knowledge sufficient to understand human judgment and decision making. Even those who have some level of psychology the primary focus is behaviourist which remains in the STEM-only paradigm as it regards humans as objects and machines within a system.
5. Without an understanding of historiography a STEM-only approach will not understand the subjectivity of history and contributing factors.
6. A semiotic study of the Matrix demonstrates that the colours and language promote confusion and ambiguity in understanding. For example, an understanding of semantics, semiology, discourse and language demonstrates that the risk matrix by design requires significant interpolation, guessing, interpretation, meaning making and reductionism.

7. In what sense does the Matrix help with understanding the idea of a tolerable risk? In what sense then can a zero ideologue use the Risk Matrix because all risk would have also to be reduced to zero. The absolute of zero represents no tolerance as it is an absolute semiotic. Therefore all risk matrices after analysis would have to be 0 or green for work to commence. This of course creates a nonsense as there can be no activity or work that involves no risk, no trade-off and no by-product.
8. Like all methods, the design bias of the Matrix itself remains unquestioned. This is helped by an industry that lacks training in critical thinking, deconstruction and semiotic thinking. The whole way that the Risk Matrix is 'framed' and how it 'primes' an audience creates the delusion that its presence designates itself as an effective tool. This is no more efficacious than feeling comfortable because a cross is placed out the front of a church.
9. The bias of the assessor and subjectivity of the assessor is hidden in the risk matrix process. The assumptions of the Matrix design are hidden for the un critical thinker. This means that most who use the Matrix assume that its design is benign and objective/neutral. The perception that a risk matrix is somehow a scientific tool is one of its greatest dangers.
10. There are many social psychological dynamics that show that individuals and groups overestimate small probabilities and underestimate large probabilities because of various polarizations in association and organisation. Further see Sunstein, C., (2009) *Going to Extremes, How Like Minds Unite and Divide*. Oxford. London.

The Risk Matrix is at best cosmetics or theatre and creates a delusion and confidence that risks are understood and being managed. This overconfidence which is particularly psychologically induced by the change of colours is in fact the real risk associated with the Risk Matrix. The risk industry would be much better served if this delusional device was eradicated.

Figure 32. Typical Risk Matrix

			Severity Class				
Consequences			Catastrophic A	Major B	Severe C	Minor D	Trivial E
	People		Multiple fatalities	Single fatality	Major Injury or illness / permanent disability	Minor injury illness. Expected to make full recovery	Slight injury. First aid or no treatment required
	Environmental		Effects wide spread; viability of ecosystems or species affected; permanent major change.	Major offsite impact; long term severe effects or rectification difficult;	Localised (<1 ha) & short term (<2 yr) effects. Any offsite. Easily rectified	Effect very localised (<0.1 ha). Onsite. Very short term impact. (weeks) Minimal rectification	No effects; minor on site effects rectified immediately with negligible residual effect
	Reputation / Regulatory		Continuous national & / or international coverage, major regulatory restrictions imposed	National press coverage , regulatory investigation possible loss of licence	Local media coverage . Reportable to regulator	Managed locally , some external awareness.	Issue resolved in day to day management . No media coverage.
	Financial		Loss may exceed A\$10 million	Maximum between A\$10 million and A\$1 million	Max loss less than A\$1 million	Max loss less than A\$100,000	Loss less than \$1,000
Likelihood	Frequent 5	Expected to occur once per year or more	Extreme A5	Extreme B5	High C5	Intermediate D5	Intermediate E5
	Occasional 4	May occur occasionally in the life of the mine	Extreme A4	High B4	High C4	Intermediate D4	Low E4
	Unlikely 3	Unlikely to occur within the life of the mine, but possible	High A3	High B3	Intermediate C3	Intermediate D3	Low E3
	Remote 2	Not anticipated for this mine at this location	Intermediate A2	Intermediate B2	Intermediate C2	Low D2	Low E2
	Hypothetical 1	Theoretically possible but has not occurred at a similar mine	Intermediate A1	Low B1	Low C1	Low D1	Low E1

There are of course some from the STEM-only perspective that seek to justify the Risk Matrix as having some value. For example: Talbot, J., What's right with risk matrices? <http://www.jakeman.com.au/media/whats-right-with-risk-matrices>. (Accessed 7 January 2018) Talbot is one of the designers of the SRMBoK.

Talbot attributes meaning to the Matrix as if the Matrix itself enacts discussion and facilitates decisions. All of the factors that Talbot attributes to the Matrix can be generated without a Matrix. One doesn't need a Matrix to generate conversations about risk. One doesn't need the Matrix to discuss complexities and subjectivities about decisions in risk. One doesn't need a Matrix to help keep people on track nor provide consistency in thinking strategically about risk. Simply asserting that the Matrix is 'one of the best practical tools that we have' doesn't make it so.

From the perspective of zero ideology the Risk Matrix cannot make sense as there can be no tolerance for risk. Therefore in risk ideology all risk must be reduced to zero in the green because any admission of risk tolerance is understood as the sanctioning of harm and error.

What Really Happens with the Risk Matrix

The Risk Matrix has been so enshrined in risk industry mythology that it cannot be removed because of its attributed value. What really happens is that the Matrix is used to justify a non-progression to further paperwork. What this means is that if one can use the Matrix to demonstrate that the risk has been reduced to a tolerable green level, that no JSW or SWMS needs to be completed for the task/activity. It is therefore in the best interests of workers to use the Matrix to eliminate risk using the Matrix through theatre. Workers know that if a risk remains in the red and draws the attention of management that endless amounts of paperwork will be demanded to complete the theatre process. In particular, to demonstrate that the organisation doesn't accept a risk that could result in harm or error.

The Injury Pyramid Delusion

One of the things that is convenient about curves and pyramids is that they are neat and tidy, giving a sense of order and control. This is what Taleb (2010 *The Bed of Procrustes*, p. x) calls:

... squeezing life and the world into crisp commoditized ideas, reductive categories, specific vocabularies and prepackaged narratives.

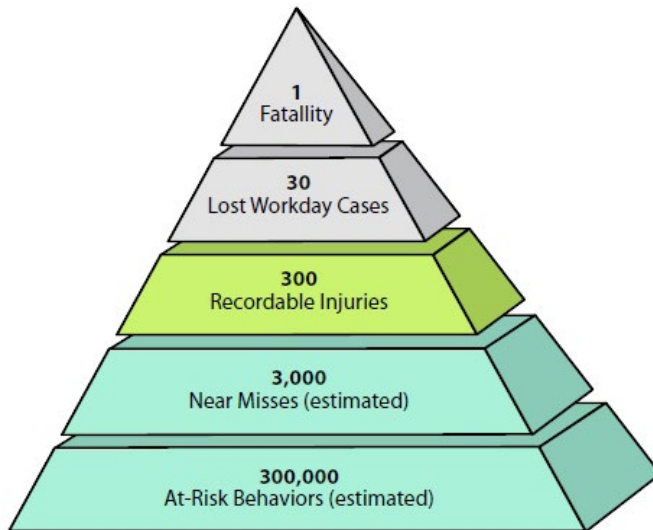
Rather than filling Risk Management training with tidy formulas and pyramids of convenience we should be much more in tune with nature of randomness, resilience and risk. Current texts in Risk Management proudly parade pyramids, swiss cheese and curves as a source of intelligence about incident investigation, causation and understanding risk. I think Taleb is right in associating the commoditization of ideas with Procrustes, chopping off and stretching body parts as seen to 'backward fit' the mythology. Even to challenge the curve, pyramid or Matrix evokes all kinds of defense from those with sunk cost in the game. Unfortunately for them, their own statistics don't match the curve or pyramid. Like finding meaning in the entrails of a goat, the curves and pyramids are defended like sacred objects in the religion of fundamentalism. They are even sacralised with predictive value.

The pyramid as depicted in *Figure 33. The Incident Pyramid Delusion*, is a much older creation than the Bradley Curve but is nonetheless as sacralised in the risk industry. Despite all the evidence to demonstrating Heinrich's pyramid as the fictional manufacture of an insurance salesman in 1931, the risk industry defends this myth more than a fundamentalist defends the Bible. There is no ratio to risk, this is why risk is about uncertainty. There is no mathematical construct for randomness, the 'rain falls on the just and unjust' the same as the dance of death visits without predictability. This is not to endorse fatalism but rather to say that the manufacture of control, the language of absolutes and the commoditization of risk offers no maturity for people.

What I find most troubling about the fixation with curves, cheese and pyramids is the bizarre notion that these in some way inspire effective risk management? Yet, so little is discussed in the riskosphere about inspiration,

motivation and imagination. So whilst Risk accepts the imagination of Bradley and Heinrich it can't imagine that these are just dated constructs. It can't imagine a situation without such misguided props and their misdirected focus. It can't imagine what Risk Management might look like without these superstitious trinkets, to ward off the evil of unpredictability, taboo and uncertainty.

Figure 33. The Incident Pyramid Delusion.



Bow Tie

The Bow Tie (*see Figure 34. Bow Tie*) was developed at the University of Queensland in 1979 in the faculty of Chemistry. There is some dispute about its origins but it has been adapted by the risk industry over time and particularly sanctioned by large tier one companies in oil and gas and security. In the early nineties the Royal Dutch/Shell Group adopted the Bow Tie method as company standard for analysing and managing risks. The Bow Tie is the go-to tool/model for the SRMBoK by Talbot, J., and Jakeman, M., (2009) *The Security Risk Management Body of Knowledge*.

The SRMBoK demonstrates an orthodox approach to risk with an emphasis on physical hazard management and no coverage of all of social psychological knowledge. It introduces the classic Risk Management Process that was previously discussed. It also uses the Risk Matrix already discussed and so includes semiotic models to try and clarify the Risk Management process. However, we know from all semiotics that all graphical models are flawed and are subject to broad hermeneutics and drift away from accuracy and definition. The SRMBoK also acknowledges the subjectivity of ALARP and its endorsement of open thinking about risk. The acknowledgement of these demonstrates that the SRMBoK accepts the idea of residual and tolerable risk (p. 52-54).

The SRMBoK wrongly asserts that organisations in general do not seek risk aversion or have a 'risk appetite' (p. 53). This has already been demonstrated by discussion about the fundamentalist ideology of zero and its dominance across the industry.

The SRMBoK also endorses the linear model and ideology of Petersen's, Heinrich's and Reason's Swiss Cheese (p.54) although it does acknowledge that such a perspective can be misleading. Although there is use of the language of 'human factors' in the SRMBoK this is understood in global sense as 'interfaces between humans,

environment and technology’. However, like all discourse in human factors, there is no discussion of critical issues associated with Social Psychology and as such, drifts into meaning ‘humans as a factor in a system’.

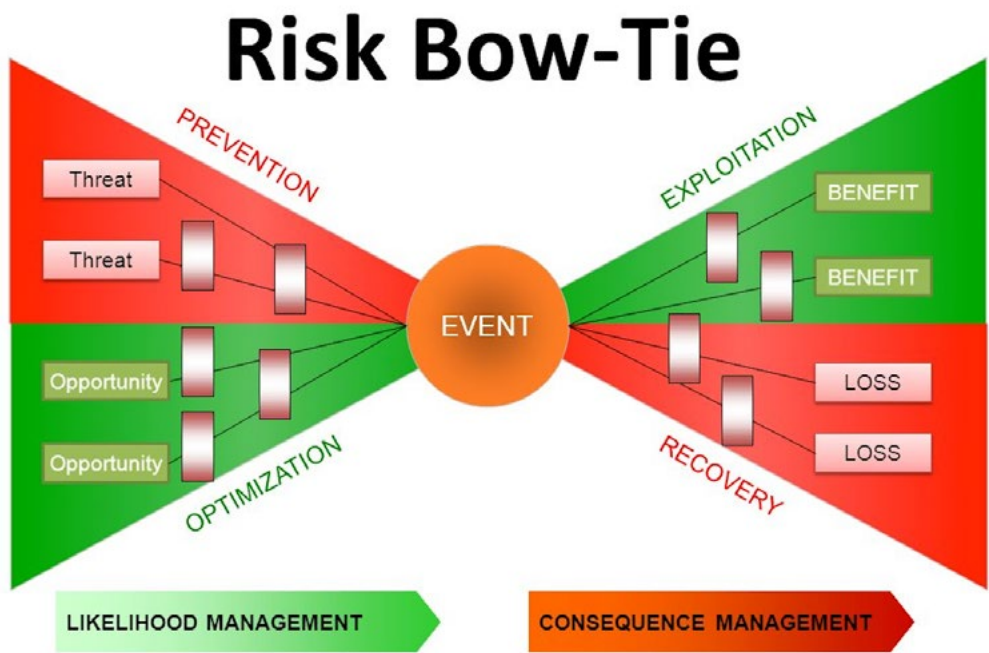
The Bow Tie is introduced on page 57 within the context that the models introduced provide ‘a structure’ for Risk Management. In the Powerpoint that accompanies the SRMBoK there are over thirty seven individual slides explaining the use of the Bow Tie. Amongst many claims to benefits, the SRMBoK (p. 58) asserts that the Bow Tie provides: ‘A robust, repeatable and reliable method of documenting existing controls and linking them directly to the risks which they are treating’.

This includes a complete absence of discussion about culture, the collective unconscious, semiotics, semiosis, the psychology of human judgment and decision making, motivation, social constructs on perception, heuristics, social biases etc. It states: ‘It aligns with and complements other methodologies such as:

- Hierarchy of Controls
- Swiss Cheese Theory
- Attack tree methodologies
- Fault tree analysis and root cause analysis
- PPRR emergency management model’, all linear reductionist models in understanding risk.

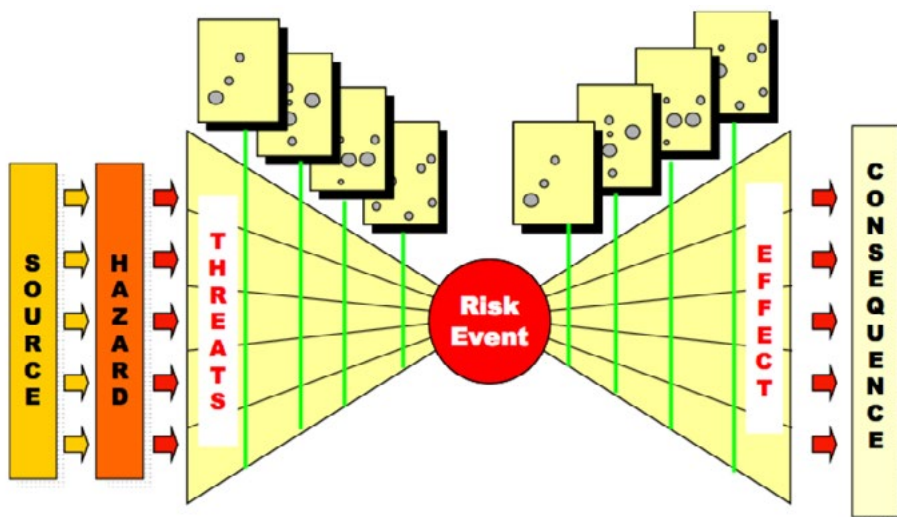
Like all STEM-only Risk Management semiotics and semiotics, the Bow Tie is a linear/reductionist model that provides visual comfort for a process as if there is some scientific attribute to the method.

Figure 34. Bow Tie



We see that every model in the genre of Risk Management denies the reality of wickedity and Wicked Problems, randomness and disorder, including the mapping of The Swiss Cheese onto the Bow Tie construct (p.59). See at Figure 35. *Swiss Cheese on Bow Tie*. At other parts of the SRMBoK it places the linear Fault Tree model over the Bow Tie.

Figure 35. Swiss Cheese on Bow Tie.



The whole process is explained in page 61 and following with no mention of people, fallible humans or any social psychological elements for decision making in risk such as: heuristics, effects and biases, semiotics, the unconscious, subjectivity, wickedity etc. The visual structure and language of the SRMBoK gives the impression that risk assessment and management is an exacting process that one can undertake mechanically and objectively. The central emphasis is on 'assets' and objects complete with triangles and graphs to give the impression that risk and ALARP can be quantified and 'controlled'.

The idea that human fallibility and subjectivity is a critical part of using all these tools is completely missing from any risk discourse including popular models of incident investigation.

There is mention in the SRMBoK of an holistic sense of culture but culture is defined in a behaviourist fashion with no comprehension of complexity or wickedity in understanding. Similarly the use of the idea of unconscious is only with regard to insufficient knowledge or ignorance. There is no discussion of unconscious decision making as a positive or paradoxical activity in judgement. The idea of a trade-off in decision making is discussed regarding cost-benefit, there is no discussion of by-products in decision making, homeostasis or anti-fragility in the paradox of risk decision making. There is no discussion about the philosophical assumptions (methodology) of the SRMBoK nor evidential links between the claims of effectiveness of the Bow Tie. The transfer of assurance is gained through sunk cost and semiotic logic based on STEM-only assumptions.

When Tools Become Methods

When institutionalized tools become enshrined in organizational culture, they are like concrete shoes, they seem to fit but the weight of the problem over time seems only good for getting us quicker to the bottom. What tools am I thinking of? Well, many of the tools we have accepted to measure risk or performance. For example, Bird's or Heinrich's Pyramid, Lost Time Injury data or Frequency of Injury data. This is partially driven by the STEM-only thirst for measurement itself and ideologies that desire materialist interpretations of the world. Unfortunately, the materialist attribution of validity to measurement is mostly self-perpetuating and becomes its own bind, creating a blinkered view of risk. However, in any human activity there is equally as many things that are not measureable and reside in the unconscious. And when the world of measurement and statistics, tools and mechanics doesn't explain why people do as they do, more solutions are sought in the same measurement paradigm. Even when disciplines label their approach as 'human factors' they end up focusing on systems.

A tool such as Lost Time Injury (LTI) measurement, says much more about the toolmaker than the tool. All tools require a method of use, whether a hammer, telescope or statistic. Every method also 'hides' a methodology that is, the ideological design behind the purpose and meaning of the tool itself. Ellul (*The Technological Society*) called this ideological design 'technique' meaning, the values and ideology embedded in technological efficiency. This is why sometimes people wonder whether a person is controlling an iPhone or whether the iPhone controls them.

Once tools and methods have been institutionalized, they are rarely questioned, interrogated or subject to scrutiny and, when they are questioned, it is the scrutineer that is often made problematic, not the question. This is the case with many defective tools that have crept into the risk industry that we are unlikely to ever eradicate. This is due to attribution, sunk cost and religious sacralization through symbolism and myth.

The first thing we need to understand about tools is their bias. At the foundation of collecting data is an assumption that it is an indicator of something more than itself. Data in the risk industry has become the tool of choice for the Risk Management. LTIs are now the unquestioned symbol of safety in many organisations. People then 'attribute' value to such data despite the fact that it doesn't indicate anything about culture. Indeed, trusting data as cultural measurement creates a blindness and distraction to real indicators of culture. So now, many people spend an excessive amount of time collecting data and reporting on material that has no cultural value. This is of course exacerbated by language that sets numerical goals to demonstrate success. When the language of such goals is anchored in fear by the regulator we end up with an industry that is known for collecting and counting rather than an industry that walks, learns, listens, helps and thinks critically.

Gigerenzer (2000) in *Adaptive Thinking* addresses the issue of the tool and method and raises a host of concerns that condition the attribution of objectivity to tool effectiveness. He shows how statistical thinking is shaped by social context and how social intelligence is critical to the interrogation and attribution of meaning to data. The method of collection and the attribution of value to statistical data is highly subjective. Whilst such data is wonderfully seductive to the busy executive, its value for organizational culture is close to nil. So, if you get your data down to zero does that mean you now have a culture that manages risk effectively?

The only way to really escape the trap of the tool-as-method is to take up more qualitative activities in risk assessment. It is such activities as walks, learning, listening, dialogue, considering uncertainties, imagination, conversations and critical thinking that are of much greater value to the development of Risk Management.

Here are some typical problems when a tool becomes a method:

The tool is only as good as the designer

When regulators design tools and checklists they are creating tool-as-method. **That is, any tool or method embeds a methodology (philosophy) in its design.**

The workforce now can't imagine life without some of the models-as-tools such as the Risk Matrix and Bow Tie. The tool-as-method becomes indoctrinated in a culture and then enshrined as if it has always been there. Any questioning of the tool becomes heresy and any thinking 'outside of the box' is condemned. Worse still, the regulator knows so little about culture as demonstrated by the NSW Workcover Culture Survey and its design that confuses systems-as-culture and behaviours-as-culture. Compliance to the thinking design of a misguided method limits thinking and suppresses the imagination.

The tool doesn't help manage the unexpected

The excellent work by Weick and Sutcliffe (2007,) in *Managing the Unexpected* ought to be 101 reading for everyone in the risk industry. Nothing is more predictable than after an event that someone will say, 'I couldn't see that coming!' Or 'I had no idea they would do that'. The fact is, when we squash the risk industry into the sausage STEM-only thinking of excessive audits about, excessive fear, excessive checklists and excessive indoctrination – we drive out the most important capability a person can have, imagination. Here we are in an industry focused on the issue of uncertainty at work driving out the very capability required to manage uncertainty.

The after affect effect

One of the worse effects of coming through an audit is the relaxed post-audit state it creates, the opposite of what Hudson calls 'chronic unease'. The key to managing risk is not the peak and troughs of the 'audit wave' but to develop a greater and more consistent sense of 'collective mindfulness' (Weick and Sutcliffe). The backslapping that comes after the agony of a nonsense audit is a greater problem than the audit itself. The gymnastics undertaken for the presence of the auditor are then relaxed so everything can go back to normal. I don't know a single construction company that says that any of the excessive audits adds any value to managing risk indeed, most say it has made everything worse.

It's like the grubby kid who gets dressed up to go to church, underneath they are still a grubby kid, but the one hour show looks great.

The success of excess

What has developed in the past ten years in the risk industry is this bizarre notion that volume of activity equates to quality of outcome. We can now talk of '25 kgs of Risk Management' or '30 kgs of procedures' about risk management plans. When organisations trust in volumes of bureaucracy they often become blind to the culture, confusing systems for culture. None of this paperwork counts for squat in court if it is disconnected from the real culture of how risk is managed at work. Indeed, the greater the inconsistency of paperwork with workplace reality, the more the courts will crucify you with it. Regulators should be talking about the reduction of regulation and checklists not the expansion of such. The limitations of humans to manage excess is called 'bounded rationality' (Herbert Simon http://en.wikipedia.org/wiki/Herbert_A._Simon). The more excessive systems, the more humans create by-products to manage the excesses of the system eg. heuristics, autopilot, double speak, tick and flick.

Risk Schizophrenia

What all this excess does is turn Risk Management into a bi-polar activity. As the pressure of conformance to non-thinking checklists expands, the dumbing down of the Risk Management increases. My mate Ted tells me, he simply has no time to reflect, think or be considered in his work, he runs from one thing to the next and still doesn't get all the paperwork done. It creates a 'fault line' between what he knows actually creates risk on site and the lack of creativity he is 'forced' to focus on. The time and space required for reflection and imagination is gone. Most people I know in Risk Management resonate with the idea that their job as being made more bi-polar.

No Longer Risk Intelligent

The ability to sausage out compliance to a checklist is not such an intelligent exercise, it's just 'mix and match'. And, when there is a non-compliance usually something petty and ridiculous, the auditor tells you how to fix it anyway. So you don't have to 'think creatively' to pass an audit, but you have to be imaginative on site to discern risk. Trouble is, you don't even see the word 'imagination' float about much in the risk industry or at risk-focused conferneces. Whilst you will hear plenty of presentations on law, fear and compliance, I haven't seen or heard of anyone presenting on the importance of imagination in managing risk.

Good at Passing Audits

When I was at University I had a friend who was outstanding at passing exams with next to no preparation and other highly intelligent friends who couldn't pass exams. Audit and exam mentality suits only one of the nine learning intelligence types and personalities. People who know how to pass audits are really good at passing audits, but the audit personality so suited to STEM-only thinking, that is good at passing audits, is not good at best suited to imagination, creativity and discovery.

Most often the 'audit-type personality' is poor at communication, poor in people skills and ineffective in supervision – all essential for managing risk on site. It's like counting injury statistics, all it proves is that you are good at counting incident statistics, there is no connection between the statistic and audit with the creation imagination necessary to enhance Risk Intelligence

So what is the prognosis? Is anything likely to change? Probably not, the regulator and auditor mentalities lack the imagination to think outside the box indeed, the public service culture and regulative culture doesn't speak much of the imagination necessary for their job or for Risk Management.

Conformity Drives Out Imagination

I love spending time with my two granddaughters. We play imagination games all the time: we make objects into mermaids; we become cats and dogs from cartoons; we sail across waters to the cubby house and hide in the corner of the bedroom from monsters. If we can think of it, we become it. The early years of childhood are all about imagination and it's only later that our school system sets about to knock such thinking out of us. The unschoolers and deschoolers discussed in *Tackling Risk, A Field Guide to Risk and Learning* clearly demonstrated this. It is well documented that our schooling systems devalues the imagination subjects such as art, dance and music and elevate maths and science. Just measure the time allocation to STEM subjects in school indeed, many schools now have a curriculum unit called STEM.

By the time we get to our first occupation art, music and poetics are relegated to hobby status. Who would have thought that the same skills we engage in our hobbies would be so vital in making sense of risk?

I was in a large Tier One company the other day after a series of incidents whose only solution to the problem was greater vigilance and conformity to systems. In order to help, a new checklist was invented to check the failed checklist and then audit the checklist that was used to check the original checklist. Confused? Maybe not, but I'm sure the workers were. When we have endless checklists and risk assessment layers on site and each filled with many pages, we need to stop and ask what we are doing to ourselves and our imagination.

Imagination requires free thinking, creative thinking and discovery. Things get invented when people break from conformity

When it comes to the imagination and risk, here are a few things to consider, we need to:

1. Understand that systems-only thinking creates systems-dependent thinkers.
2. Change the mindset which tries to 'engineer out idiots'. The more we keep this myth going, the more we create people on site who can't think.
3. Think more about what is not in the checklist than what is in it. And for heaven's sake, don't just keep adding to the checklist.
4. Explore what is unseen just as much as what is seen. We must ask the question in our safety observations: what can I not see or hear?



5. Limit language which fosters small picture thinking. Zero talk for example creates micro-factor thinking. BP had maintained zero discourse for years before they couldn't imagine what happened at the Deepwater Horizon Oil Rig in 2010. In fact, the week of the disaster they were bragging about their zero mantra and giving out awards for under reporting!
6. Encourage exercises in imagining the unexpected, what Weick says is encouraging the 'bad news'.
7. Speak much more about how we make sense of risk rather than generating fearfulness which limits imagination.
8. Take semiotic observation walks and conversations with no checklist but simply a blank paper and a host of open questions.
9. Spend more time in visual thinking, using concept maps etc. when tackling problems and issues.
10. Bring people into work groups who are not from a STEM-only paradigm. Bring in people who are outside the club, even outside our industry and ask them what they see.

A culture that can't imagine is an fragile culture, a culture that can't learn is an unsafe culture and a culture which under-reports is an fragile culture. Imagination is one of the greatest resources organisations can access in the management of risk. Organisations and individuals that can't imagine can only see in the 'here and now', such organisations struggle to doubt and entertain possibilities and therefore have poor capability in managing the unexpected.

'False Consciousness' and Perception in Risk

One of the interesting things we learn in the study of cults and fundamentalism is the nature of perception 'blindness'. 'False consciousness' describes the beliefs that oppress people for which they are unaware and the beliefs themselves that inhibit critical self reflection. False consciousness inhibits the oppressed from perceiving their own oppression and encourages the distortion of perception through 'sunk cost effect' and coercion. For example, people find it difficult to understand why a woman who has been systemically bashed by her partner should not only defend but also not report her partner's violence. We witnessed the embarrassing performance by a populist tv commentator in discussion with Rosie Batty, whose husband killed his own son and was then killed by police (<http://www.dailymail.co.uk/news/article-2594845/Rosie-Batty-blasts-Joe-Hildebrand-comments-domestic-violence.html>). Rosie Batty commented about the commentator:

I am absolutely outraged. I was living in hope that because of Luke's tragic death it would bring a huge awareness to family violence. This is beyond my comprehension how, again, the woman who is the victim is punished, she said ... And Joe, your comments are so, so misguided.

Later the commentator apologized (<http://www.smh.com.au/entertainment/tv-and-radio/joe-hildebrand-apologises-to-rosie-batty-over-family-violence-comments-20140403-35zvp.html>) but clearly showed he had no understanding of the issue and then proceeded to justify his ignorant view. This serves a good example of false consciousness. The naïve idea that punishment for non-reporting of violence is a good idea totally misunderstands the dynamic of family violence, the pressures not to report and the nature of punishment and its by-products. The commentators own worldview and thirst for justice, makes him blind to the plight of family violence. Punishment for under reporting has a trajectory that punishes the victim and decreases reporting, things go underground. For example, the State in Australia that does the best with the issue of child abuse is Western Australia, where there is no mandatory reporting of child abuse but a diversion program.

The idea that punishment alone motivates and modifies behavior is naïve and misguided. Rosie Batty who is the expert in this matter, is quickly ignored by this populist commentator who has only simplistic views about the issue, a good example not just of false consciousness but also demonstrates our society's fascination with the entertaining 'noise' of amateurs.

The idea that setting absolutist and perfectionist goals followed by punitive measures to achieve those goals, is a bankrupt model for motivation of risk ownership. The model ignores hidden pressures that drive under reporting, totally misunderstands the nature of learning and believes that only the hedonic principle (carrot and stick) drives human relationships. It is this kind of simplistic stuff that keeps the risk industry bogged down in more of the same – more punishment, more systems and more vigilance in policing systems. Yet, whilst the sector complains about the excesses of all these things it proposes nothing new. False consciousness, maintained by the fortress of the hedonic principle, maintains blindness that complains about bureaucracy on one hand but does nothing about the cultural values that drive it on the other. Of course, the discourse of the hedonic principle is assisted by language that normalizes its own assumptions, binary opposition goals and naïve simplistic ignorance about trade offs in ideology. False consciousness allows the cult to flourish so that it cannot reflect on its own assumptions and perpetuates its own beliefs through language gymnastics like the tv commentator so that there is no shift in belief, just a false apology. The ideology of the Justice Cult generally uses the following mechanisms to maintain false consciousness, these are:

1. The creation of binary opposition language used to identify belonging.
2. Creation of in-group and out-group identity by conformity to a mantra.
3. Demonise the enemy so that the ideas of non-believers are not considered valid.
4. Identity of non-conformists by their non-conforming language.
5. Bureaucratize belief in the mantra in policy and develop ‘sunk cost’ in the mantra.
6. Elevate the importance of the mantra goal above the value of people.
7. Suppress critical reflection, discredit academic research and elevate the importance of social media/ amateurish opinion.
8. Create attachment to promoters of the mantra.
9. Keep messages simple and promote opposition as confusing and unnecessarily complex.
10. Normalise the mantra and punishment for non-conformity.

One of the best ways to assist people from the oppression of the Justice Cult is to articulate the dissonance of their position. Whilst it may not be often successful, one never knows when another is ‘ready’ to shift from false consciousness to critical reflection.

The Story of Job

In order to close out this chapter and discussion on comfort in fallibility we really should make a detour to theological and philosophical engagement with the story of Job. Whilst it is not the purpose of this book to write a theology of suffering, it is important to make the point that suffering is a test of one’s hermenutical method.

The biblical story of Job is a focus for Kierkegaard, Jung and Ricoeur. In some ways one couldn’t think about evil, suffering, pain and harm without reference to the biblical narrative and these classical considerations. Indeed, as demonstrated by Kierkegaard, Jung and Ricoeur if one wants to understand the dialectic of suffering and the symbolism of evil related to acts of god and acts of humans, Job is the starting point. Another helpful reflection on Job is provided by Blake.

One of the methodological drivers of the Book of Job is critique of ideologies. The Book of Job is perhaps the first exemplary case of this discourse as suggested by Žižek in *The Puppet and The Dwarf*. It also validates dispute within faith.

Breuggemann (1997) in *Theology of the Old Testament* (p. 391) comments: ‘The friends are dismissed because they had settled for an ideological conclusion, without taking into account the problematic of lived experience ... for Yahweh does not want ideology to crush experience. And that leaves only two parties for the conclusion: Yahweh

and Job, face to face. Job, in contrast to the friends who are seduced by the Justice Cult, have spoken what is 'right' (42:7-8).

As Breuggeman comments further: 'This is no longer a God who has reneged on a moral calculus'. For the rational worldview there is suitably simply indignation and confusion at the story of Job. However, to understand Job one needs a different hermeneutic, a semiotic and poetic hermeneutic to understand the sense of the story and the nature of suffering. What the rationalist desires is an ideological proposition, the same as Job's three so called 'friends'.

Kierkegaard draws our attention to the themes of inexplicable loss and the dream of equital in *Fear and Trembling* and *Repetition*. His lyrical writing challenges the notion of Eternal Return and asks if fallible humans have self-sufficiency enough to expel despair on their own. This is what Kierkegaard calls the Socratic model, what might be called 'the Nietzschean model'. Kierkegaard uses the story of Job to dispel the Eternal Return and presents faith as a transforming worldwind, an alertness in hope to the eschatological promise. For Kierkegaard metaphysical wonder is uncoupled from metaphysical explanation. The fact that Job doesn't get to know why is not the semiosis/myth of the narrative. The book of Job wasn't written for Job or for a positivist hermeneutic. For Kierkegaard the quest for reason is a recollection not repetition. Recollection enacts nothing. Propositions neither require a leap of faith nor accept paradox.

Mooney (p. xxiv) comments on Kierkegaard: 'Job is reborn as one ear tuned to the poetry of the world. He is no longer a lawyer demanding his turn to speak, his turn to interrogate. Climacus takes a lead from the otherness of death; it suspends self-valorization. Death gives a sense to life's dance'.

Jung in *Answer to Job* (1973, p. 16) comments: 'Job is no more than the outward occasion for an inward process of dialectic in God'. Some even suggest there are two Jobs and two gods in the text in a search to rationalise the 'why' of binary theodicy. In the quest for justice in risk, theodicy takes the perspective of Job whereas the semiosis of significance is not seeking justice for Job but testing one's hermeneutic on suffering.

Accordingly in Ricoeur we learn that what we understand most from Job is the nature of our own hermeneutic. In *The Symbolism of Evil* (p.30) Ricoeur states:

The initial intuition of the consciousness of defilement remains: suffering is the price for the violation of order; suffering is to 'satisfy' the claim of purity for revenge.

Further:

... the evil of suffering is linked synthetically with the evil of fault; the very ambiguity of the word 'evil' is grounded in ambiguity, grounded in the law of retribution as it is revealed with fear and trembling by the consciousness of defilement. Suffering evil clings to doing evil as punishment proceeds uneluctably from defilement. For the same reason, the prevention of defilement by rites of purification acquires the value of prevention of suffering.

Ricoeur, in relation to the theodicy of Original Sin states:

This bond between defilement and suffering, experienced in fear and trembling, has been all the more tenacious because for a long time it furnished a scheme of rationalization, a first sketch of causality. If you suffer, if you are ill, if you fail, if you die, it is because you have sinned.

The purpose of the story of Job is to confound the theodicy of Original Sin and juridical constructs of rationalist ethics.

This same juridical theodicy is present in the assumptions of Just Culture, so popular in the risk industry. It is interesting to observe the remnants of Original Sin theology in the risk industry's understanding of wrong doing, error and defilement. There is no stronger emotion in the risk industry than vengeance let loose by violation. Of course with defilement, blame and juridical righteousness one seeks justification by measurement. The myth of Job turns juridical justification by measurement on its head. The Justice Cult through Penal Substitutionary Atonement is confounded by such a radical cosmology.

One of the most important things we learn from Job is that suffering makes sense to faith and that juridical theodicy doesn't have the equipment to understand evil, suffering and harm. The story of Job cannot make sense to the worldview that rejects faith. We cannot learn anything from the story of Job through the binary assumptions of theodicy.

Paradox Confounds Reason

One of the great frustrations of fallibility is being able to ask why but not knowing why. The key to living with fallibility is accepting that there are times when there are no rationalist answers, no rationalist fixes and no rationalist reasons. Nothing confounds the arrogance of reason and the ego of knowing more paradox and faith.

It is in the ambiguity of Wicked Problems, trade-offs and by-products that humans are humbled into not knowing. It is through not knowing that wisdom is born and faith comes alive. The uncertainty of risk facilitates the leap of faith.

In the face of all we can know and the limits to optimization in decision making, humans in satisficing must leap into not knowing and be content with the outcomes knowing we have done all that is fallibly reasonable in light of the constraints of fallibility. This is the challenge of Due Diligence and ALARP.

Workshop Questions

1. How do the orthodox tools of the risk industry create comfort with risk?
2. How do you understand the commonly accepted semiotics of risk such as the Matrix and bowtie as effective?
3. How are popular models of Risk Management understood as theatrics?
4. Could the popular models of Risk Management be better described as a 'dance'?
5. Why can these models of Risk Management be described as a 'false consciousness'?

Transition

So let's move from trying to understand and develop comfort in fallibility to a critical look at thinking that considers a transdisciplinary approach to tackling risk. If we consider the rhizome as a representation of risk in fallibility and a Wicked Problem, then the best way forward in tackling risk is not through a closed system of thinking but in an opening up of possibilities through a transdisciplinary approach to knowledge. In order to do this we must step beyond the STEM-only approach to thinking about risk and engage with unfamiliar paradigms that challenge a STEM-only worldview.

CHAPTER 5



Transdisciplinary Hope

Most strategies are built on specific beliefs about the future. Unfortunately, the future is not predictable. Worse, the requirements of a breakthrough success demand implementing strategy in ways that make it impossible to adapt should the future not turn out as expected. Resolving this paradox requires a new way of thinking about strategy and uncertainty. - Michael Raynor, The Strategy Paradox

One of the dangers of making things foolproof is that it creates fools. - anon.

Every science lies in a logical immanence or in this immanence within a transcendence that it cannot explain. - Soren Kierkegaard, The Lily in The Field and The Bird in The Air

Risk as a Wicked Problem

There is no 'fixing', solving or elimination of risk neither should there be. Risk is essential for human living and is the foundation of fallibility. Risk is a Wicked Problem because its control and elimination shrinks human 'being'. The static no-risk life is not a life at all. Humans create order, laws, rules, techniques and controls in order to tackle the randomness of life but the by-product of such controls is the limitation of freedom, imagination, discovery, invention, innovation and creativity. The challenge in tackling risk is not the delusion of risk elimination but rather understanding how to embrace risk and tackle risk in balance and human being.

Problems that are so complex that there seems no solution were termed 'Wicked Problems' by C West Churchman in 1967. Wicked Problems have no stopping rule, no alternatives, involve complex interconnectivity and those seeking to solve the problem are those who are causing it. In 2010 the Safety Institute of Australia commissioned an investigation of the issue producing a 'must read' report produced by Peter Wagner and Associates. The report, *Safety - A Wicked Problem* brings together the views of twenty of Australia's leading CEOs. You can download the report at: <http://www.actu.org.au/Images/Dynamic/attachments/7000/Safety%20A%20Wicked%20Problem%20-%20Peter%20Wagner%20-%20PWA.pdf>

Rittel and Webber state that there are at least 10 distinguishing characteristics of Wicked Problems, which are:

1. There is no definitive formulation of a Wicked Problem.
2. Wicked Problems have no stopping rule.

3. Solutions to Wicked Problems are not true-or-false, but good or bad.
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. Every Wicked Problem can be considered to be a symptom of another problem.
9. 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.
10. The planner has no right to be wrong.

These ten points give a clear understanding of what a 'Wicked Problem' is. It must be multi-faceted or layered, cannot be solved with a simple solution it must be tackled is intractable and beyond complex. On the other hand there are many problems on a daily basis that are quite simple and can be solved with a simple solution, for example, a mathematical equation or an engineering problem. Rittel and Webber define these problems as 'tame' and ones that have solutions or can be easily defined. Wicked Problems are more complex in nature because they include 'public policy' and 'societal problems' (Rittel & Webber, p. 160). Hancock stated it quite succinctly that Wicked Problems are very complex with no definitive solution, many layers with 'behavioural complexity'. (2010). This is a great way to define a Wicked Problem because it emphasises the fact that there is a human dimension to these types of problems.

What Layer is the Problem?

Craig Ashhurst is in an associate of Centre for Leadership and Learning in Risk and has been a colleague for more than 20 years. At the time of the publication of this book Craig is completing his 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. The work of John Law *After Method, Mess in Social Science Research* (2004) is particularly helpful in understanding that traditional STEM-only methods have limits when it comes to tackling Wicked Problems.

The following Table *Understanding Problem Layers* 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 have solved a problem, when in fact they have only solved a layer within a problem. An example is demonstrated by how some endeavour to eliminate risk in the quest for safety. 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 judgment in decision making. The by-product of eliminating human judgment 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 and thereby increasing risk.

We can see from the table that each layer of problem has unique characteristics and that the application of one method, such as 'fixing', whilst such works for single technical problems, cannot work for a multiple-dimensional Wicked Problem that requires transdisciplinary communities just to 'tackle' them.



Table One. Understanding Problem Layers (Craig Ashhurst)

	Label	Reality	Method	Experts	Greek God
Layer 1 Simple	Technical	Single	Fix	Best - Single	Apollo
Layer 2 Complex	Complex	Fragmented	Solve	Multiple	Prometheus
Layer 3 Wicked	Wicked	Multiple	Tackle	Transdisciplinary	Psyche

The Gods Understand Wicked Problems

In order to further understanding these layers of problems I have turned to the Greek gods to help with metaphors for understanding. A fascinating aspect of Greek mythology is that their gods have weaknesses. The first thing we should note is that the model of divinity associated with Greek mythology/symbols is incongruent with the idea that a god should be omnipotent (all powerful), omnipresent (present everywhere) and omniscient (all knowing). For the purposes of understanding the scope and method associated with each layer of problem I have selected three Greek gods to assist with understanding. Each god has been associated with each layer of problem and illustrates the thinking and engagement required to understand each problem type.

The first god Apollo is associated with layer 1 problems, technical and singular problems that require direct ‘fixing’. Apollo is the myth which celebrates the clear light of the sun. Apollo 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 was the most beautiful of the gods and the most attractive. However Apollo was also a killer, ruthless in his fixation on order, reason and harmony. Apollo was 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 however, 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, was not really a god when her story begun. Psyche is a human who has all the problems of humanity, including its many unpredictabilities. When Psyche a mere mortal, meets Eros and marries her, she loses him and wanders the world seeking after him and becomes the slave of Aphrodite and is given impossible tasks to perform such as ascending Death in hell and bringing it back in a casket, and is at last re-united with Eros.

In Greek mythology the gods were considered personifications of energy (archetypes) 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’. The quest to fix everything is also associated with the methodology of the Justice Cult. We can observe this masculinist quest to ‘fix’ all things from many conversations on social media. It seems that conversation in itself is regarded with little value unless it proposes a solution.

The masculine approach to ‘fixing’ everything is highlighted by the work of Tannen in *You Just Don’t Understand; The Argument Culture* and Belenky in *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 that 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. The belief is that faith in STEM-only will eventually save the day and solve the problem even though the evidence demonstrates that the by-products of STEM are just as dangerous as its inventions.

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 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 what unconscious dynamics dominate modern organisations and what metaphors 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 organisations subjective experience of itself. She focuses on the point of incongruence where the organisation is 'vulnerable to anxiety', facilitating the organisations exploration of the ways (conscious and unconscious) it experineces the world and trusting the organisations ability to become what it is capable of becoming.

Risk is a human, cultural and social psychological activity that engages with the unexpected. Risk is about what is unknown and what is unseen afterall, if we could see the outcome of an activity where is the risk? Krimsky and Golding (1992) in *Social Theories of Risk* describe the ontology of risk as the metaphysical status as property or quality of the physical world. In other words, risk is not so much a physical reality but rather an athropomorphic metaphysic that is inevitably subject to human social processes. Risk is fundamental to human being in the world, it is essentially a quantum problem. Risk affects all disciplines, it is truly transdisciplinary. A risk industry comandeered by STEM-only thinking remains mono-disciplinary.

One cannot separate out the economics of risk, from the psychology of risk or, the toxicology of risk from the regulation of risk or the ethic of risk.

Klecksograph or Rhizome

For those who know much about the philosophy of Gilles Deleuze they will know that a central part of his philosophy is the idea of a Rhizome. A rhizome is a tangled web of knotted stems (<https://en.wikipedia.org/wiki/Rhizome>) hidden below the surface. The rhizome is a helpful metaphor for Deleuzian philosophy but also for understanding the nature of Wicked Problems and risk. The Klecksograph is a helpful metaphor for understanding the binary thinking associated with positivism and STEM-only ideology. A Klecksograph is the mirror binary pattern made by folding an ink blot. Rorschach developed a test to see if people's reactions to inkblots could be used as a tool to uncover unconscious desires. See the comparison of both symbols at *Figure 36. Klecksograph* and *Figure 37. Rhizome*.

Figure 36. Klecksograph

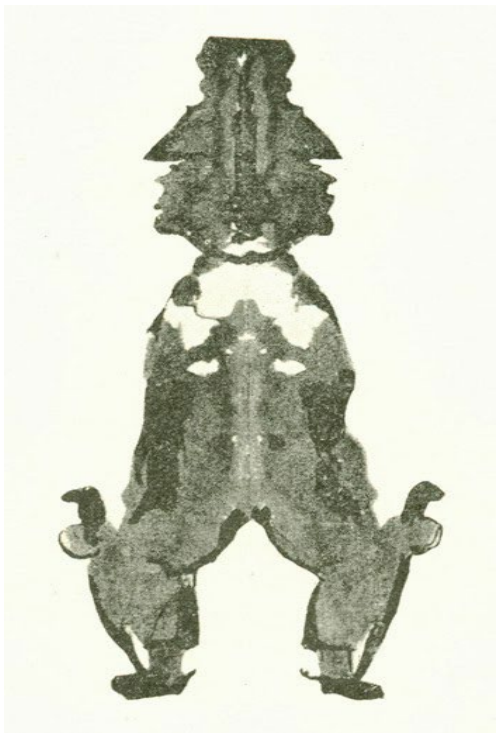


Figure 37. Rhizome



The kletsograph is binary, ordered, predictable, logical and tidy. The rhizome is messy, chaotic, matted, knotted and hidden. The kletsograph reminds us that people find meaning in ink blots when there is none. This is the problem of Fundamental Attribution Error that plagues the risk industry. Armed with Hindsight Bias it is amazing how people in the risk industry claim such extraordinary infallibility.

Harford (2016) in *Messy, The Power of Disorder to Transform Our Lives* demonstrates how humans tend to impose order on events and situations when there is no order. The construction of order is often more for psychological comfort than a testimony of reality. Weick (1979) made this clear in his classic work on *The Social Psychology of Organising* when he stated that humans organise 'to reduce equivocality'. The reality of living fallibly is the acceptance of paradox and ambiguity.

Ambiguity is not dangerous in itself. It does not change the principles of identity and equivalence in the slightest, nor does it change the principles of meaning as value; it merely produces floating values, renders identities diffuse, and makes the rules of the referential game more complex, without abolishing anything. - Jean Baudrillard, *The Jean Baudrillard Reader* (p38)

One of the reasons why the risk industry struggles with the nature of suffering, harm and error is because of the fundamental binary nature of theodicy. We all feel much better when things are defined and certain but we must be realistic not fatalistic in honesty with fallibility and risk.

We don't serve people well by speaking nonsense and **framing** discourse in fallibility. If we speak the nonsense of infallibility to people we simply **prime** humans for failure and stimulate anxiety/angst. So we need to **pitch** the discourse in risk to the right level. We don't need hero language or language of being superhuman when tackling risk is an everyday, ordinary undertaking. When we acknowledge the ambiguity and paradox of risk, when we acknowledge the by-products of decisions and the accompanying trade-offs in risk then, we can **anchor** organising and workplaces to reality not unreality.

The most repeated word in the risk industry is word 'control' yet there are many things that are beyond human control. When we understand the world as a rhizome we can then learn to live with the messy, disordered and risky nature of living. If everything has to be under control then there can be no movement in life, life would become static. Without movement there is no learning, maturity or personhood.

Strategic Planning and 'Engineering' Outcomes

I am often asked by organisations to help facilitate strategic planning days. Usually, this is a day long exercise where a group of people including executives get together to talk about their mission, vision and expected outcomes for the following years.

It is amazing on these strategic planning days that no one ever gets anxious about never achieving the objectives or projected outcomes of the previous plan. No one expects outcomes to be fully achieved. No one is surprised when things change and the organisation goes in a new direction in response to the Market or unexpected forces/events. No one seems perturbed by the fact that targets are not achieved or goals are rarely attained or sustained. This is because we know that life is random and that luck, chance, misfortune and uncertainty are real. So if this is the case one wonders why such days are not utilised better to explore the language and discourse of planning and thinking strategically. When I conduct strategic thinking days this is what I mostly do - work with organisations on how they construct meaning and what their language and discourse tells them about how they understand risk and the future.

We all know that any talk about fool proofing and future proofing systems and organisations against risk is nonsense, yet there are organisations out there speaking such nonsense language especially in the risk industry. For example:

<https://www.pwc.com/gx/en/services/audit-assurance/risk-assurance/future-proof.html>

<http://www.sharesafetyandrisk.com.au/news/future-proofing-workplace-health-and-safety>

<http://www.futureproofyou.com/seminars/work-health-safety/>

<https://zeroriskinternational.com/>

There is no foolproof anything in a fallible world with fallible people and speaking in such ways has more in common with a miracles church service than the real world of risk. Yet the risk industry loves the language of engineering and zero. It provides positivist certainty amidst all the data that says that there is none. This doesn't mean of course that such a message is not sellable nor that people will not be attracted to naive promises. For every get rich scam there are a host of injured customers who made their purchase based on belief in a wish.

Similarly the language of 'engineering' outcomes is common in the risk industry, the work of Hollnagel *Resilience Engineering* is an example. We find examples of the yearning for certainty and predictability in the ideology of 'predictive analytics' (<https://www.predictiveanalyticstoday.com/what-is-predictive-analytics/>) and faith in big data and algorithms. Similarly the risk industry yearning for perfection is found in the seduction to eugenics and promises of eliminating risk from the workplace through diagnostics for example: <http://www.selectinternational.com/online-safetydna-assessment-and-development-program>.

The best researchers on the realities of strategic thinking are Minszberg *Strategy Safari*, *The Complete Guide Through the Wilds of Strategic Management* and Raynor *The Strategy Paradox, Why Committing to Success Leads to Failure (and What to Do About it)*.

The Rhizome is an ecological metaphor that takes on the biological power of the reality of life and living. Real life is messy and muddled, it is rarely linear and reductionist. Like Bateson in *Mind and Nature*, we can learn a great deal about the realities of risk through the study of mutation, ecology and entropy. It was Bateson who showed how relationships and the ecological 'mind' produces transformations, unpredictability and uncertainty.

Standing over and against the work of Deleuze and Bateson is the nonsense denial of life and randomness by the risk industry. Here is risk bogged down in its cocooned STEM-only worldview, maintaining the delusion that everything is controllable, everything is measureable and one day fallible humans will attain zero. Here is Zero spruiking the idea of certainty in denial of all we know of evolution and entropy. The zero worldview keeps maintaining a Cartesian worldview, where Paley's clock ticks with regularity against the post-modern world.

We see the problems with the mechanistic worldview in Amalberti's discussion of 'ultra safe systems'. (<http://www.sciencedirect.com/science/article/pii/S092575350000045X>). Amalberti shows that an 'ultra safe' system creates new paradoxes and ambiguities, just as Taleb (2012) demonstrated in *Anti-Fragility*, that the quest to eliminate risk simply creates new fragilities. It was Ellul who demonstrated (<http://uberty.org/wp-content/uploads/2015/06/ellul-system.pdf>) how the quest for absolute efficiency (eg. the technique of 'ultra safety') ultimately dehumanizes humans in the world and debases the dignity of personhood.

Amalberti shows that as organisations/systems reach what he deems the saturation point (ultra safety) of one disastrous accident per 10 million events (10⁻⁷), new and more sinister 'Wicked Problems' are created that mitigate against ultra safety goals. Amalberti also discusses this in his book *Navigating Safety, Necessary Compromises and Trade-Offs, Theory and Practice* (pp. 85ff).

Of course, we have known this for years, perfection and zero are nonsense in the real world. The closer one gets to absolute zero, the greater and more hidden complexities become additions to the system. Risk is not something

that can be eliminated, it can only be shifted to a new place where a new risk is created that will come back and revisit with a vengeance. Shut kids up in cotton wool, put them in front of screens and obesity becomes the new killer. Overuse antibiotics and soon they become ineffective. What next?

Unfortunately, Amalberti retreats back to the safety paradigm when looking for new thinking. Strange how Safety wants 'safety differently' but keeps reading Reason, Hollnagel and 'Safety Science' looking for an ecological understanding in engineering paradigms.

Amalberti suggests that the challenge of the ultra safety paradox 'requires the development of new research paradigms that encourage cross-fertilisation' in new fields of research. Yet, Alamberti has a long way to go before he exorcises his Safety archetype. It will be quite some time before Safety has the courage to engage a trans-disciplinary approach to thinking. What does Safety do? It acts in denial and solidifies its curriculum in concrete, securing old STEM-only paradigms, curves, matrices, pyramids and Cartesian myths crying for a new paradigm just as long as it doesn't disrupt the old one. The risk industry at one stage even had a fad with the word 'disruption' until they realised that such discourse within STEM was meaningless.

Meanwhile, thinkers like Deleuze, Ellul and Bateson sit way outside the risk industry comfort zone and remain out of touch to a *mentalité* that views the world through the lens of positivist mechanics and materialist pragmatics. If the problem is always framed as a nail then the response will always be a hammer.

There is however hope beyond the confines of STEM-only knowledge. There are other worldviews and disciplines that see risk and fallibility completely differently from the orthodox STEM view. The trouble is that once one is locked in a worldview no other worlds make sense or are too scary and foreign to embrace. This is the current status of the risk industry. It is attributed to Einstein that madness/insanity is defined as doing the same thing over and over again expecting that something will change.

Attributing Order to Disorder

Alan Watt in *The Book on the Taboo Against Knowing Who You Are* (1989) uses a very simple illustration to show how humans attribute order to disorder. He illustrates a wiggle line to show what appears to be a disordered messy line. This is what the blind corners and turns of life look and feel like from the perspective of fallibility. See Figure 38. *The Wiggle Messy*.

Figure 38. The Wiggle Messy.



You can see what happens to the wiggle line when a grid is placed over it. It chunks down the line into bite size pieces and gives the line direction and form. See *Figure 39. The Wiggle in Structure*. The overlay of the grid provides a structure with which to interpret the line. Within each box in the grid each part of the line is made to make sense within the assumptions of the grid. The grid provides control of each section of the line and provides a structure in relationship to trajectory and meaning. This is what a STEM-only worldview does to Wicked Problems. It turns the organic randomness of the rhizome into a STEM experiment to be controlled.

In a similar way the Risk Matrix gives meaning to risk when it serves at best as a symbol of comfort about risk. The Matrix is a symbol that provides no definition about risk nor can it be demonstrated as effective as a mechanism for tackling risk. Yet it is believed because the construct provides a security and comfort to an industry that believes it to be effective, when it is not.

Figure 39. The Wiggle in Structure.



What we do in our adoption of a worldview is put an ideology and philosophy over the realities of life to explain the way we understand the world. If one has a fundemenalist or binary worldview one sees the world through the lens of that view. The proposition that things are grey simply doesn't make sense and the cognitive dissonance required to chaneg that view is too painful.

The invention of Original Sin by Augustine and Penal Substitutionary Atonement act like a grid with which to understand the fallibility of humans. The assumption of sin then explains everything from why people are disabled, why children die in child birth and why disasters happen in the world. Original Sin like Just Culture is a very tidy construct to explain why the innocent suffer, why people are harmed and why punishment is deserved. The trouble is, hereditary sin is a construct. It is an ideology established through a fundamentalist binary hermeneutic as a way of understanding the mythology and symbol of the Adam and Eve narrative.

Similarly, all theologies and philosophies are constructs we use to understand the world. Each can be judged on their ethical outworking against outcomes for the well being of people, communities and society. The reason why binary worldviews ought to be rejected is because they support adversarialism and the demonising of others. When the outcome of a philosophy is dehumanisation and harm in the name of good then such ought to be rejected. This is why philosophies that are nihilist, positivist, materialist and individualist are not helpful for understanding and tackling risk. If the purpose of the risk industry is helping then philosophies that turn people into objects and individualist and materialst worldviews foster anti-community and anti-learning activities. This

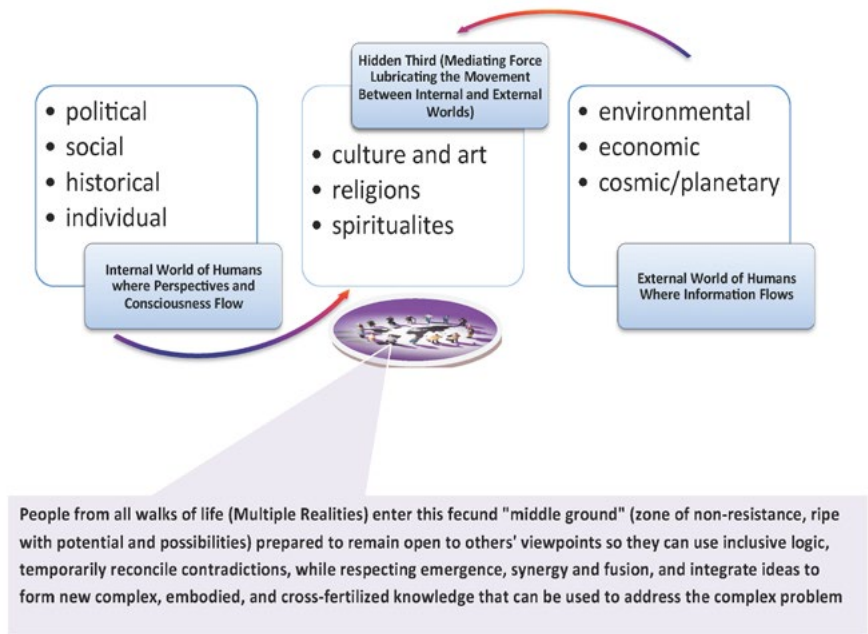
is observable in the discourse and language of people within a system that knowingly harm others in the name of good. This was demonstrated by Social Psychologists following World War 2 in explaining the ideology of Nazism and The Holocaust.

Transdisciplinary Hope

Transdisciplinary knowledge is rooted in the messy and Wicked Problems of real life and is emergent, embodied and fallible. Transdisciplinary knowledge seeks to traverse the normal boundaries that keep disciplines apart typically by language, discourse and symbols. Transdisciplinary knowledge seeks to liberate reason from the confines of positivist-only knowledge into the multi-realities of complex and Wicked Problems that are full of paradox, ambiguity and non-resolution.

Trans disciplinary holds that there are mutiple levels of realities, with interaction and movement amongst what Nicolescu in *Transdisciplinarity: The Hidden Third, Between The Subject and the Object* calls the 'Hidden Third'. Nicolecu proposes a new body of knowledge that comprises interaction between science, culture, spirituality, religion, and society and calls this 'cosmodernity'. The Hidden Third is the middle ground between object and subject, the place where Ellul's existential dialectic operates. The Hidden Third is understood as a new zone of non-resistance to other disciplines not just the compromise of entertaining the validity of another discipline from a closed standpoint. The Hidden third is a triarchic place of mediation between forces locked in either the object or subject. This is Illustrated at *Figure 40. The Hidden Third*. The Hidden Third also aligns with Piercian Semiotics.

Figure 40. The Hidden Third.



The Hidden Third and Transdisciplinarity accepts the coexistence of multiple contradictions and multiple realities including realities not known to traditional empirical rationalist constructs. This would mean that STEM-only knowledge for example would have to be open to the perspectives, ideologies, value premises and belief systems that have been so professionalised they cannot understand. This includes disciplines of social psychology, culture, poetics, education, spirituality, metaphysics, ethics and theology. Transdisciplinarity views wickedity and messiness through a new epistemological lens that respects chaos, disorder, uncertainty, paradox and emergence.

Unfortunately, traditional professionalisation of the disciplines isolates disciplines from each other by territory and boundary creation by language, discourse and symbols that serve as a code to close each discipline off from others. Ashhurst calls these 'boundary objects'. Collins and Fillery-Travis (Gibbs, p. 42) explain the situation:

In the Renaissance it was possible for one individual to be cognisant of everything that was known. By the nineteenth century the growth of knowledge meant issues needed to be addressed through working groups whose members each brought their specialisation and expertise to the table. In the twentieth Century innovative systems such as quality circles were being explored as alternative methods of accessing knowledge and creative problem solving. As we move into the twenty-first century the call is for leaders to embrace boundary spanning working methods and problem solving to manage these complex and ambiguous environments.

The long tradition of distinct silos of knowledge may have served us well in the past but with the growing complexity and wickedness of the world such a paradigm is no longer suitable. The days of STEM-only assumptions about linear coherence are over. The challenges of wickedness and risk require a transdisciplinary process. As Morin reminds us in Gibbs (p. 18)

... our aptitude for connecting is underdeveloped and our aptitude for separating is overdeveloped.

The strange paradox is that in our very connected world of social media and sophisticated communication we are more alone as humans than ever and depression and anxiety are at epidemic proportions. Further read Turkle (2011) *Alone Together, Why We Expect More from Technology and Less From Each Other*. What we need is a paradigm that offers more hope than the closed technique of STEM.

Hope is one of the most important needs of human fallibility. It is in hope that humans experience being in imagination, creativity, discovery and connection with other. False hope is what one gets in simulacra which is an imitation of living and being. When one seeks to quash risk one also empties life of hope and all that fallibility brings to human personhood.

A study by IBM of over 1500 CEOs (Gibbs, p. 41) states:

It is no longer sufficient, or even possible, to view the world within the confines of an industry, or a discipline or a process, or even a nation.

What is needed more than ever in leadership and the workforce is agility, learning, tolerance of paradox, comfort with ambiguity and, the ability to think critically and strategically. Collins and Fillery-Travis (p. 102) call these 'i-disciplinary' concepts.

Just as transdisciplinarity is about working with disorder, so too are there multiple perspectives and definitions of transdisciplinarity. For the purposes of this book perhaps I will cite a few definitions from Gibbs (p. 103ff):

Transdisciplinarity is an integrative process whereby scholars and practitioners from both academic disciplines and non-academic fields work jointly to develop and use novel conceptual and methodological approaches that synthesize and extend discipline-specific perspectives, theories, methods, and translational strategies to yield innovative solutions to particular scientific and societal problems.

Transdisciplinarity is a reflexive research approach that addresses societal problems by means of interdisciplinary collaboration between researchers and extra-scientific actors. Its aim is to enable mutual learning processes between science and society; integration is the main cognitive challenge of the research process.

Transdisciplinarity grasps the complexity of problems, takes into account the diversity of life-world and scientific perceptions of problems, links abstract and case-specific knowledge and, develops knowledge and practices that promote participatory research and collaboration between disciplines.

The target of transdisciplinarity is not unity but greater coherence within paradoxes and multiple competing realities. Transdisciplinarity seeks a new way of knowing, what some have labelled a 'metanoia', a knowing beyond. Interestingly the word 'metanoia' is a koine Greek word in the New Testament meaning repentance or 'turning around', from the Eternal Return.

The challenges to approach transdisciplinarity are extraordinary. The academic tradition of establishing and sustaining disciplines works against the cross-fertilization required to embrace this new way of thinking and collaborating. It is quite a challenge for STEM-only thinking to embrace and validate poetics.

The 'how to' of transdisciplinarity is about more not less, balance and dialectic. At the moment in the risk industry there is very little balance with a STEM-only approach and a fixation on objects. Yet without a transdisciplinary approach there is not much hope that business, industry and complex organisations will better tackle the Volatility, Uncertainty, Complexity and Ambiguity (VUCA) of the modern world of risk.

Human Anxiety and Fallibility

The inescapability of fallibility is the source of much anxiety. It was Heidegger who sought to remove the psychology of anxiety from human 'being' encumbered with the discourse of hereditary and juridical sin. Heidegger talked about an inauthentic approach to life that was immersed in an economic understanding of sin. Of course, Heidegger like all philosophers must be understood in what they oppose. Each philosopher usually defines themselves against the extremities of the philosophy before them, this was no different for Heidegger. Heidegger was opposed to the rationalism of Rene Descartes who located the essence of being in human thinking ability.

Heidegger sought to answer the question of being and time and was interested in the phenomena of being itself. Phenomenology was formed against the dominance of determinism and positivism. He posited that the search for consciousness through metaphysics was foundational to understanding human being or absolute being. He argued that being was acted into consciousness through the triarchic nature of the interpretant, the third who mediates between the object and subject. He was interested in the acts of analysis, imagining, reflecting and creating. His foundational question was: 'why is there being and not nothing?'

Heidegger developed a term called *dasein* that designated meta-knowing, perhaps what I would call 'faith'. The purpose of *dasein* is to understand being in the world. Existentialism was also his interest and this focused on 'becoming' in the world. *Dasein* cannot be reduced to an identity with biology or the brain. *Dasein* is about being 'withit' or what Heidegger called 'thrownness'. The focus here is not about escaping fallibility but the question is about how one can be 'present in the world' in fallibility.

Phenomenologists like Ricoeur are most interested in mystery and hermeneutics or, the interpretation of being. Ricoeur stressed the importance of metaphysics and stepping outside of the scientific mindset of reason, logic and method. For Ricoeur Being was not about being but rather about human *difference*, echoed later by Derrida. Heidegger discussed the concept of *Aletheia* that is, that which cannot be verified but must be experienced. Phenomenology stands in contradistinction to the STEM worldview.

Bateson explains this well:

It seems that every important scientific advance provides tools which look to be just what the applied scientists and engineers had hoped for, and usually these gentry jump in without more ado. Their well-intentioned (but slightly greedy and slightly anxious) efforts usually do as much harm as good, serving at best to make conspicuous the next layer of problems, which must be understood before the applied scientists can be trusted not to do gross damage. Behind every scientific advance there is always a Matrix, a mother lode of unknowns out of which the new partial answers have been chiseled. But the hungry, overpopulated, sick, ambitious, and competitive world will not wait, we are told, till more is known, but must rush in where angels fear to tread'. (Bateson and Bateson, 2005, *Angels Fear, Towards an Epistemology of the Sacred* <http://www.uoeshenstein.ch/texte/Bateson-AngelsFear.pdf>).

The phenomenological view understands the world ecologically not mechanically as it seeks to answer the question: 'who am i?' This question is the struggle of philosophy, theology and metaphysics. It reminds me of the poem by Dietrich Bonhoeffer the famous clergyman of World War Two who was part of the conspiracy to kill Hitler. After the failure of the 20 July Plot on Hitler's life in 1944 Bonhoeffer was sent from the military prison Tegel in Berlin, where he had been held for 18 months, to the detention cellar of the house prison of the Reich Security Head Office, the Gestapo's high-security prison. He was then moved to Buchenwald and finally Flossenbürg where he was executed on 9 April 1945, two weeks before the US soldiers liberated the camp. His poem captures the nature of anxiety about being.

Who am i?

<https://tollelege.wordpress.com/2009/04/01/who-am-i-by-dietrich-bonhoeffer/>

By Dietrich Bonhoeffer (March 4, 1945)

Who am I? They often tell me
I would step from my cell's confinement
calmly, cheerfully, firmly,
like a squire from his country-house.

Who am I? They often tell me
I would talk to my warders
freely and friendly and clearly,
as though it were mine to command.

Who am I? They also tell me
I would bear the days of misfortune
equably, smilingly, proudly,
like one accustomed to win.

Am I then really all that which other men tell of?
Or am I only what I know of myself?
restless and longing and sick, like a bird in a cage,
struggling for breath, as though hands were
compressing my throat,
yearning for colours, for flowers, for the voices of birds,
thirsting for words of kindness, for neighborliness,
trembling in expectation of great events,
powerlessly trembling for friends at an infinite distance,
weary and empty at praying, at thinking, at making,
faint, and ready to say farewell to it all?

Who am I? This or the other?
Am I one person today, and tomorrow another?
Am I both at once? A hypocrite before others,

and before myself a contemptibly weebegone weakling?
Or is something within me still like a beaten army,
fleeing in disorder from victory already achieved?

Who am I? They mock me, these lonely questions of mine.

Whoever I am, Thou knowest, O God, I am Thine.

–Dietrich Bonhoeffer, *Who am I?* in *Letters & Papers From Prison* (New York: Touchstone, 1953/1997), 347–8.

Anxiety is one of the characteristics of fallibility. It is in the deceit of human fragility that humans deny death in materialism, consumerism and constructs of safety. Safety is only ever a temporary condition in the face of uncertainty. Becker in *The Denial of Death* (1973) explains why and how humans repress the inevitability of death what Kierkegaard called ‘shut-upness’ in *The Concept of Anxiety* (2014). Kierkegaard (p. 22) describes the anxiety of asking the impossible:

It must not let itself be put off by the babble that it is no use asking the impossible; for even listening to such talk is unethical, is something for which ethics has neither time nor opportunity.

Kierkegaard demonstrates that it is often in the trivial and mechanical that humans drown out existential questions. Sometimes the risk industry is so busy counting and auditing risk that it misses the fundamental ‘ethic of risk’.

What is an ‘Ethic of Risk’?

An ‘ethic’ is essentially a moral system. The etymology of ‘ethic’ is from the Greek *ethos* meaning customs, culture, habits and mores of people. The focus of an ethic is how to live rightly for the good of others and society. Whilst this should sit well with the risk industry it does not. As we see from the Global Safety Accord the focus on objects, science, systems and engineering draws the risk industry into internal conflict. Again, the wish to avoid policing and enforcement culture common in the risk industry cannot be tackled without an holistic ‘ethic of risk’.

One of the strange arguments of the advocates of zero is that there can be no other ethical goal than zero. In binary logic they understand that any other goal than zero is advocacy of error. However it is much more complex than this. One could just as easily ask: ‘how is it ethical to speak perfection to fallible humans?’ From this stance the ideology of zero rejects any claim to ethics.

An ‘ethic’ extends to far more than just having a ‘code of ethics’, although these are important for professionalization. For example see: Nursing and Midwifery Board of Australia. (2005) *Code of Ethics for Nurses Australia*. Melbourne: Nursing and Midwifery Board of Australia. And; Paramedics Australia. (2011) *Australasian Competency Standards for Paramedics*. Melbourne: Paramedics Australasia Ltd.

An ethic denotes a foundational philosophy of being or ontology.

So, an ‘ethic of risk’ should denote the core values, beliefs and moral imperatives that drive the activity of how risk is tackled and understood in relation to people. This should include respect for persons and associated cultural imperatives and for the respect of persons in community. The challenge for the risk industry in the professional space in establishing an ethic of risk is the dialectic between the Archetype and the activity of tackling risk. It is in this dialectical relationship that we must understand the challenge of privileging objects over subjects, hazards over risk and systems over personhood. The language of zero, the fixation on counting, unscientific acceptance of nonsense logic, denial of fallibility, dehumanization in ‘paper systems’ and the brutalism embedded in doctrines of intolerance exemplify the dominance of the Archetype.

So, there can be no discussion of professionalism or defining what it means to ‘act professionally’ without a discussion of an ‘ethic of risk’. Postema (1980, p. 63) states:

For many professional roles the moral universe of the role is considerably narrower than that of ordinary morality and, when the two overlap, they often assign different weights to the same set of considerations. This often gives rise to conflicts.

What is created in a professional ethic is often something at quite a moral distance from the ethic of the layperson. For example, the principle of confidentiality that is characteristic of the helping professions is much more rigorous than a layperson's understanding of confidentiality. Confidentiality is an ethical aspect of separation and a matter of professional judgment often determined for the good of the client or the profession. We witness this in the professional activities of teachers, lawyers, doctors, clergy and nurses.

An ethic of risk ought to include a framework of moral values that underpin professional judgment. Such values as: respect, care, trust, hope, honesty, relationship, community, intelligence and wisdom ought to form the foundation of professional coherence. Postema (p.68) states:

Judgment thus involves the ability to take a comprehensive view of values and concerns at stake, based on one's experience and knowledge of the world. And this involves awareness of the full range of shared experience, belief, relations, and expectations within which these values and concerns have significance.

This is why the ideology of zero and, the perpetual focus on numbers and objects in the risk industry can never be a part of an ethic of risk. An ethic of risk must focus on the nature of persons (Martin, et.al., 2010) and the 'upbuilding' of personhood (Semler, et.al., 2012). This is why the discourse of the hero and 'the will to power' so evident in masculinist discourse, can not be a part of an ethic of risk. Professional responsibility is ethical responsibility and the absence of a study of ethics in the risk curriculum and bodies of knowledge in Australia is a clear indicator that the activity of Risk Management has a long way to travel before it can 'act professionally'. Such studies are foundational in the professions in Australia and certainly as yet have no significant part currently in any risk curriculum. Postema (p.76) comments:

The risk of severing professional judgment from its moral and psychological sources is particularly strong in a profession that serves a system of institutionalized justice.

Although Postema (1980) is focused on the legal profession his studies have significant ramifications for the risk industry that is consumed up to 75%, in training on regulation, law, systems and policing. So we see a tension for the risk industry in the seduction of focus in objects over subjects in its training curriculum and this 'severs' professional judgment in moral and ethical need to focus on personhood and helping. Concomitant with this is an incapability for self-reflection, professional debate, openness to transdisciplinary thinking and critical thinking, all essential characteristics for acting professionally.

Finland, Weddings and Leaps of Faith

When my daughter married a Finn we travelled to Finland to spend time with my new son-in-laws parents. I first met his parents at the wedding, having flown to Mollymook on the South Coast of NSW Australia, leaving Helsinki at minus 20 degrees celcius and arriving for a wedding on the beach at 36 degrees celcius. The reception was held at Bannister's and the joy of the moment was captured by my brother-in-law Geoff the photographer as Jenni and Matti jumped in the pool to celebrate the occasion. See *Figure z. Jump in the Pool*. The picture serves as a wonderful semiotic about risk. The jump into marriage is perhaps one of the best examples of a leap in faith based on satisficing.

I look back on my own marriage 43 years ago and realise just how much I didn't know in making such a faith-commitment. At the time you don't even think it is a risk and have no idea you are satisficing and making a leap of faith. This is how Hindsight Bias works. Hindsight Bias is confirmation of fallibility, we are always wise after the event.

For Jenni and Matti, little did they know with their leap into the pool by the ocean, that marriage is one of the greatest risk in life but many take it without a second thought thinking they have sufficient knowledge to jump.

Figure 41. The Leap of Faith.



Later that year it was our turn to visit Finland, the first of many trips. We spent a few weeks in Helsinki, Lahti and Korolohia. Then we made a trip to Russia and Estonia and back to Finland. We went in January leaving the warm days of a Canberra summer behind landing on New Year Day, my birthday. It was minus 20 degrees celcius with two metres of snow but the airport has a heated tarmac whilst planes were grounded across Europe. We would soon learn how imaginative, creative and innovative the Finns were, so different from conservative fear-focused and risk averse Australia where bipolar politics stifles creativity and stunts any hope of risk.

There are many quirky things the Finns accept as normal that teach one about the power of culture as the collective unconscious. We learned that Finns park using an honesty system. Everyone has a blue disc (see *Figure 42. Blue Parking Clock*) in their car and when they park honestly estimate when they will be back to leave that spot. They then set that time on their parking clock and so the next person knows when that spot will be free. Coming from good Irish convict stock I couldn't see that working in Australia and so asked what happens when people break the rule. The response was, 'why would want to break a rule?'

Figure 42. Blue Parking Clock



Having been dominated by the Swedes and Russians for centuries up until 6 December 1917 the Finns have a staunch loyalty to government and order. At our private New Years Eve celebration all festivities were stopped and speeches were made about Finnish identity and we sang the National Anthem at 12 midnight. I recently attended the 100 year anniversary of Independence in Canberra. See *Figure 43*. *Toasting Finland on New Years Eve.*

Figure 43. Toasting Finland on New Years Eve.



The Finnish education system is second to none (<https://www.theguardian.com/teacher-network/2017/aug/09/worlds-best-school-system-trust-teachers-education-finland>) and for a country of only six million people it is astounding just how many companies and organisations demonstrate: creativity, risk taking, agility, adaptability, innovation and discovery with global reach. For example: Fiskars, Neste, Kone, Nokia and Sampo.

A highlight of my first trip to Finland was my first ever ice hockey game see *Figure 44. Jokerit and Ice Hockey Game*. My son-in-law Matti who has a degree in Ice Hockey coaching now coaches in the Australian Ice Hockey League and I travelled with him recently to Spain for the second tier World Championships. In my first ever game I saw Jokerit (The Helsinki Jokers) play Siepa at Hartwell Stadium and learned just how fanatical the Finns love their Ice Hockey. The Captain of the Jokers and Finland was Osie Vinanen who was best man at the wedding. I couldn't believe how fast a game Ice Hockey was and how violent but was astounded that they had so few injuries. I often use my experience in Ice Hockey in my Risk Intelligence Training to make a point about exposure and protection, risk and resilience.

Figure 44. Jokerit and Ice Hockey



The nature of Ice Hockey, its speed, player changeability, unpredictability and volatility serve as a wonderful metaphor for understanding risk. It also serves as an effective demonstration of the rhizome disorder in risk.

Sisu and The Social Psychology of Resilience

The Finns have a cultural word to represent what we in English might call resilience, its called *Sisu*. Unfortunately in English and in management discourse resilience is primarily understood as 'bouncing back' and is framed as an individualistic endeavour. The language generally sounds like this: 'one bounces back by pulling up ones self by their boot straps and moves on'. The social psychology of resilience understands resilience within the notion of i-thou. For SPoR there can be no real individualist resilience. One cannot seperate one self off from the social world in resilience, resilience is a social dynamic.

There is really no English equivalent for Sisu because it is a collective not individualistic concept and is undertood culturally that is, in the collective unconscious of the Nation. Whilst there is some understanding about being tough, gritty and courageous, it is more than that.

Sisu expresses itself in the Archetype of Hope, in going against probabilities and taking risks in the face of uncertainty. Sisu is not just about individual courage but cultural courage and strength, it is about having faith in Finland as much as faith in the community. Perhaps in Australian vernacular Sisu is 'have a go' and 'she'll be right'. Similar to what some might call 'The Australian Legend'.

Sisu is understood to be both positive and negative, depending on context. In many ways the word Sisu explains Finland and why this tiny country is so succesful globally agaistn the odds.

When I first met Matti's father Pekka, who has since passed away, he went to amazing limits to ensure that I went to see The Military Muesum (Sotamuseo) and also Suomenlinna (see Figure 45. Suomenlinna). The Winter War tells the story of how the small Nation of Finalnd defeated the might of the Russian Red Army in November 1939-March 1940 in the snow on pushbikes! Whilst the might of the Russian Red Army tanks and artillery was overwhelming, the nimble Finns became victors on

push bikes. The Soviets possessed more than three times as many soldiers, thirty times as many aircraft, and a hundred times as many tanks and lost. Suomenlinna is the 18th century fortress in the harbour of Helsinki that tells the story of how Finland held off the might of the Swedish invaders.

For the Finns, Sisu is about Faith, Hope, Trust and Risk.

I think the risk industry needs a good dose of sisu.

Figure 45. Suomenlinna



What is Hope?

The STEM-only positivistic focus on risk is seduced by the ideology of measurement.

Many mottos and mantras for organisations are sent to me and I recently saw one for a mantra and motto of 'risk beyond measure'. The strange thing about the presentation of the mantra was that it was all about measurement. Rather than going beyond measure, the organisation was clearly stuck in measurement, a clear indicator of a calculative organisation. The website argued that injury data, risk rankings and hazard measures are culture measures. The policy of the company was also wrapped in the discourse of zero and claims that both measurement and the zero goal had changed their culture for the better. At no time in all the reporting or discussion on measurement discourse was culture defined. The discourse on the website essentially equated culture with systems and mindsets, mindsets about data and data reduction. The same company was implicated in three fatalities in 2017.

Drucker was partially right when he stated: 'what gets measured gets managed' but the opposite is certainly not true: 'if it can't be measured it's not worth managing'. So much of what comprises culture is difficult to measure especially when most organisations neither define it or, define it simplistically. The trouble is, the more one fixates on measurement the more the dynamics of measurement dictates practice. I find it interesting that many organisations speak about going to the 'next level' in Risk Management but really mean greater vigilance in marking time on the one spot in compliance.

All assessment contains an embedded methodology that invisibly drives goal setting, work validation, anthropocentric value, understanding of learning, discipline, risk perception, cultural norms and self-confirming assumptions. Measurement discourse tends to create its own trends, dependencies and blindness to the validity of

qualitative data and most data associated with culture is qualitative not quantitative. For example, measurement associated with the zero ideology drives: under reporting (necessary for learning), fixation on low level risk, punitive response and exhausting investment of time and energy into data interpretation. We now have people in the risk industry spending most of their time in unthinking processes such as: checking checklists, making graphs, counting backwards, reporting on incidents and excessive bureaucratic attention given to minor events.

The most important qualities in successful leadership and organising are not measurable. The success of your organisation is dependent on trust, care, relationship, perception and hope. Kierkegaard stated that hope is the 'passion for what is possible', risk aversion is the passion for what is not possible. Therefore the ideology of zero, the quest for the static absolute is without hope and is indeed hopeless. It rejects risk and fallibility and therefore any hope for movement, learning, comfort with uncertainty and trust in other disciplines.

Hope is the archetype that binds people together. Hope sets faith in motion so that others can be trusted and if there is failure they won't be punished. Moltmann (1967, p. 21) states that hope is 'the inseparable companion of faith'. So if risk is about a leap of faith then Hope is the expectation that the leap of faith is sufficient to act. Hope is founded in: people, systems, procedures, knowledge, training and history. When Hope is closed off to possibilities and transdisciplinarity then hope shrinks within the STEM-only worldview. So one keeps to what one doesn't know in the surety that other disciplines know nothing of help in tackling risk. In the end such a closed worldview can never reconcile why many things don't work and so in denial of disorder, fallibility and wickedity, construct a structure of comfort in semiotic tools that provide no STEM evidence of working.

It is in Hope that we also find consolation in loss and suffering, harm and pain. Hope doesn't deny fallibility in some fairy tale of transhumanism but rather acknowledges the paradox of loss in the many by-products of being fully human. That is why faith that develops into hope is content with the power of movement, learning and dialectic despite the fact of risk associated with error. Hope knows that risk aversion is hopeless. Hope is about realism, not the denial of realism. We might anticipate what might happen based upon all we can satisfice but there is not prediction of certainty in anything we do. Moltmann (1967, p.25) states: 'Hope and the kind of thinking that goes with it consequently cannot submit to the reproach of being utopian.' Faith hopes in order to know what it believes. The Transhumanist hopes against hope that one day humans will be infallible.

When we bring the notion of faith into our definition of risk, we also draw in the importance of hope in the acknowledgement of fallibility.

Workshop Questions

1. If risk is a Wicked Problem, what hope is there that we can tackle risk effectively?
2. Why does a transdisciplinary approach to risk offer more hope than closed approaches?
3. Where is the order and disorder in your organisation? Is it acknowledged?
4. What is your organisation's understanding of strategic thinking and planning? How does your organisation acknowledge that not all strategy and planning succeed?
5. How does your organisation prepare for randomness? Does it have a language and discourse of faith and hope?

Transition

As we move to the final Chapter of the book we need to think about being realistic with fallibility. There is no hope in the denial of fallibility and the search for transhumanism. If we are to be realistic about human fallibility then what skills, attitudes, knowledge and approaches are required to effectively live with risk. What does this infer for the way we speak about risk and for the discourse that shapes the culture of our organising? How is the reality of risk pitched, framed, primed and anchored in our organisation? Is there any hope, or is perfection the projection? Are there some useful tools and skills we can use to learn to be comfortable with fallibility and risk?



CHAPTER 6



Living with Fallibility in Risk

When someone asks a foolish question it is better not to answer, otherwise one becomes as foolish as the questioner. - Soren Kierkegaard, The Lily in The Field and The Bird in The Air

At stake is not what can be called 'natural risk' or the management of risk as such but the way we want to live our lives. - Mark Coekelburgh, Human Being @ Risk

Mistakes and human fallibility are inevitable, yet what actually comprises a mistake and human fallibility is often constituted relationally between the circumstances and the action, and by decisions and judgments by actors not the least being those who perform those activities. - Johannes Bauer, Human Fallibility, The Ambiguity of Errors for Work and Learning

Strategies for Tackling Risk

Why would anyone want to speak nonsense language to others in the belief that it might have sensible outcomes? What happens unconsciously when one speaks nonsense language about infallibility when in real life each day we live in fallibility? What new anxieties and depressions do people create by speaking nonsense to others rather than speaking sense? What affect does non-sensemaking have on humans who seek meaning and purpose in living? What everyday strategies are the most helpful in tackling risk as a Wicked Problem? How can we be realistic about risk without drifting into fatalism? How can we learn to be silent about unhelpful language and more articulate about helpful language? What is the most appropriate discourse in the workplace to help people best tackle risk? What is the most suitable language to help individuals and communities learn about learning? What language is the most appropriate language to foster i-thou in a communal approach to risk? What skills and knowledge is required to effectively tackle risk in the light of fallibility? How can one be ethical or professional if one speaks language of perfectionism to others yet knows that one's leadership cannot be perfect?

These are all questions that drive the discussion and strategies of this chapter.

Profession, Professional, Being Professional and Professionalisation

The literature on professionalization demonstrates that any discussion about being 'professional' is a discussion on ethics (Weckert and Lucas, 2013, pp. 315ff), moral value and conduct (Morgan, 2014). Whenever the question is asked, 'who is the professional?' the discussion follows about ethical and moral conduct as well as the socialization process of people in association (Servage, (2009) CJE pp. 149-171) . So, it is instructive to have a quick exploration into the nature of the professions and professionalization.

Merriam-Webster's Medical Dictionary (via Dictionary.com) defines a profession as:

- a calling requiring specialized knowledge and often long and intensive academic preparation
- the whole body of persons engaged in a calling

However, there is much more to understanding the language and discourse of 'profession' than simply about a group of people with specialized knowledge and a 'calling' (often known as a 'vocation'). There is extensive research on the nature of the professions that came into focus in the post war period and intensified in the 1960s and 1970s.

Whilst many groups gather together in association not all are known as 'professions'. Moreover, the idea of 'being professional' or 'acting professionally' is about much more than just membership to a group indeed, the research demonstrates that the characteristics of professionalism are a moral and ethical issue not just a question of association. If Risk Management is to be enacted professionally then ethics and moral understandings should be threaded throughout the curriculum and be central to the Bodies of Knowledge . So, 'being professional' is essentially an ethical activity (Andre, 2002, p. 969).

Hurd lists five essentials of what he terms 'real' professionalism, namely:

1. The real professional has a sense of history.
2. The real professional recognizes the relevance of emerging patterns of relationships.
3. The professional has an understanding of the complexity of the world and knowledge.
4. A professional is continuously at work on his own growth and development.
5. The professional must, through training and competence, be able to assist in guiding the layman in social planning.

In other words a professional has a 'sense' of:

1. Self understanding in their own emergence, history and identity.
2. Interdependence.
3. Complexity and transdisciplinarity.
4. Maturation and learning.
5. Guidance and helping

Based upon the literature (Boreham, 1976; Balthazard, 2015; Evans, 2008; Freegard, 2012; Loughran, 2014; Postema, 1980; Servage, 2009; Strike, K, 1990; Weckert, and Lucas, 2013) I have assembled the following as commonly accepted characteristics of professionalization, these are:

1. An identifiable knowledge base which, when mastered, provides the professional with competence to be divided in labour from the amateur.
2. A degree of specialist competence in the performance of certain work processes utilising the knowledge base.
3. A high degree of autonomy in planning and execution of the work, including the assessment of its effectiveness and even of its value.

4. A monopoly over the right to perform the work processes and therefore to produce a product. Monopoly of a professional kind, like monopoly of a capitalist kind, yields social, political and economic power.
5. Related ethical and moral practice associated with conduct and intelligence in effective a practice.
6. Credentials that help rank or authorise the division of labour.
7. The identification of a group legally recognized through licensure.
8. A sense of 'vocation' that one doesn't just enter or leave as just an occupation.
9. Due to the other characteristics on this list, there is a clear requirement for ethical constraints in the professions. Professionals are bound to a code of conduct or ethics specific to the distinct profession (and sometimes the individual).
10. Professionals also aspire toward a general body of core values, which are centered upon an uncompromising and unconflicted regard for the client's benefit and best interests.
11. A specialised training and education programme usually intellectually oriented.
12. A high degree of responsibility because of control over certain essential tasks.
13. An emphasis on 'service' and 'helping' with a high degree of altruism and dedication. A professional is expected to emphasize the 'service' and 'helping' more than the financial reward.
14. A certain level of distancing from the client in order to maintain the extra-ordinary nature of the professional's position. Usually the professionals associate with each other rather than with others with whom they have little any longer in common.
15. A specialised language (sometimes jargon) is accumulated, socialised and reinforced by peers, association and training.
16. Professional privilege (status) entails professional obligations. These obligations are insured by a code of conduct and ethics that protects the client from personal idiosyncrasies on the part of the profession. This privilege operates within occupational norms that both frees and restricts the professional in a variety of ethical and moral constraints.

Some of the best work in defining professionalism and professionalization occurred in the 1960s and 1970s when professionalization first emerged as a critical issue. Further see: Boreham, P., et.al (eds.) (1976) *The Professions in Australia*. University of Queensland Press. St Lucia. And Goode, W., (1960) Encroachment, Charlatanism and Emerging Profession: Psychology, Sociology and Medicine. *American Sociological Review*. XXV December.

Bells and Whistles and Due Diligence

The key to Due Diligence is demonstrating that your critical risks are being managed and that you can demonstrate 'assurance' that your methods to tackle risk 'work'. It is amazing with all the 'bells and whistles' about the risk industry, some discussed in this book that people lose sight of the fundamentals. Due Diligence is about tackling risk and demonstrating assurance within the vulnerabilities and subjectivities of fallibility

I note with interest the continued quest to make Risk Management 'sexy' (<http://www.hcamag.com/hr-business-review/workplace-relations/worker-humiliated-by-photo-on-innuendo-filled-poster-241799.aspx>) and marketing campaigns to 'dress up' Risk Management, all serving as distractions from the core business of Due Diligence. One could be forgiven for thinking that risk was more about marketing than having skills to tackle the basics. One would think that Due Diligence was all about counting to reach the religious target of zero (<https://safetyrisk.net/no-evidence-for-the-religion-of-zero/>). What is this obsession with all these distractions from the fundamental activity of tackling risk?

Of course, demonstrating assurance is not well served by the myth of volumes of paperwork. If you can't demonstrate how that paperwork helps workers tackle and manage risk, it will be used against you in court to demonstrate your lack of Due Diligence! The more excessive the paperwork, the more likely that it doesn't

'work'. What is most likely is that such excesses in paperwork, that drive the by-product of 'tick and flick', will emerge in court to demonstrate negligence. Forget Swiss cheese, pyramids, matrices, Bow Ties, none of these will surface for a justification in court and if they do, again will be used against organisations to demonstrate a lack of Due Diligence.

So, by what method do you demonstrate assurance that your critical systems 'work'? By what method can you prove that your risks are being tackled and managed effectively? Can you explain the purpose and meaning of your paper systems? What are your non-paper systems that demonstrate 'assurance'? What will your testimony be? Yes your honour I spent most of my time in the office counting incident rates? Are these the comments that will come out in court: 'Here your honour, Heinrich's Pyramid for your entertainment?'; 'Yes your honour, I ran a gloves and glasses campaign to manage trivial risk?'; 'We banned all sharp knives in order to keep injuries to zero?'; 'We kept to the Global Congress Vision Zero, that's why we lost sight of tackling critical risks?'

I'm sure all of these will be indictment fodder for an educated barrister and magistrate who know that zero and perfection are ideological nonsense.

Because the human being is able to speak, the ability to be silent is an art - Soren Kierkegaard, The Lily in the Field and The Bird of the Air (1849)

Silences in Risk

The place to start is in reframing the language and discourse about risk in your organisation is understanding the importance of silence. We all know that language pitches, primes, frames and anchors values and culture. Language is the bedrock of culture.

Sian Beilock wrote a great book called Choke: *What the Secrets of the Brain Reveal About Getting It Right When You Have To*. It's a book that helps explain how goals work psychologically and how athlete's 'choke' when they allow wrong messages to get into their head. In sports, there are some things you just don't talk about or think about, that's the key to motivation. This is one of the problems with being the 'favourite' team or individual, psychologically such thinking is poison to success. I have lost count of the times when I was on a team that slaughtered the opposition all year only to lose in the final. There is nothing more damaging to effort than the belief and language that talks about 'having arrived'. One of the great things about Australian culture is its hypersensitivity to 'bragging'.

One of the key skills in communication is respect for silence. Listening and observing are just as important as telling and acting. When it comes to influencing, motivating and learning we also know that some things are best not said. We know that some messages are demotivating, or inspire wrong thinking or fill the mind with unproductive ideas. This is often illustrated in sport. Defeating, negative and uninspiring messages 'prime' athletes for failure, whereas positive and inspiring messages motivate them for success. Mental athletics is just as important in sports as physical athletics. Good athletes are able to block out bad messages, they just don't need them. This doesn't mean they are naïve or stupid, they know there is such a thing as failure, they just don't need to talk or think about it. They know the importance of silence. Athletes know that if you fill the airwaves with unattainable perfection goals, that such 'noise' diminishes effort and drives complacency.

When we raise our children we are also careful about silences, we don't introduce ideas into the heads of children because we know some ideas are unethical and non-motivating. It is because we care so much about the things that influence children that we chose to be silent in some things. This is not censorship but smart education, motivating children for the right things and remaining silent about others. We also know that setting unattainable goals creates depression and anxiety, the moment the goal is not achieved the child knows they are not good enough. Psychologists know that perfectionism is a criteria for obsessive-compulsive disorder and often shows up as a cause of drug addiction. Indeed, filling the heads of humans with ideas that they will only

be accepted if they are perfect is in itself a delusion. Demands for absolutes and the language of absolutes is demotivating for humans. Let's save the language of gods, for gods.

We know too that autosuggestion is very powerful. It works in advertising and the media, this is how 'priming' works. 'Priming' hearts and minds is sometimes intuitive and at other times counterintuitive. It takes some skill in psychology and social psychology to know when something works counterintuitively in the negative when indeed, the message looks on the surface as if it's a positive. We may think it's wonderful to build up the ego of someone with false hope in some grand idea that puffing up their self esteem is always good. Only to watch them 'crash and burn' when reality hits and the delusion drives them deeper into self defeating depression.

Autosuggestion is very powerful. We know that news reports about certain behaviours and ideas create 'copycat' behaviour that sometimes 'go viral', like 'planking'. At the height of the 'planking' craze, people were losing their jobs because of copycat behaviour. Now that the craze and airwaves have gone silent, the behaviour has diminished. This is how 'priming' works, this is why silences make sense.

So, when people don't use certain language and are skilled in silences, it is absurd for others to argue that such silence proves ignorance or belief in its opposite. This is the naivety of binary opposition.

Cultures that strategically know their silences are more sophisticated than cultures that fill the airwaves with meaningless noise. Cultures that are full of meaningless slogans and nonsense unattainable mantras 'prime' confusion and frustration in the minds of workers. Such cultures fill the airwaves with 'double speak' and minds with cynicism creating a climate of demotivation and constant requalification of what the messages 'really' mean. In the end, workers make the message mean whatever they want in some kind of act of mental gymnastics. As a result the atmosphere is demotivating and people play the 'double speak' game of acknowledging the mantra but thinking the opposite.

Does your organisation know how to be strategically silent?

The Prophet and Servant

Two powerful metaphors in the work of Kierkegaard are the Prophet and Servant. The Prophet exemplifies the one who knows when to speak up and what to speak up about, often about social justice, greed, power, corruption and technique. The Prophet is the critical thinker par excellence who foretells the bleeding obvious to a generation who lack discernment or wisdom. In many ways the general population cannot tell the difference between fake news and Real Risk.

The Servant metaphor represents those who know when to be silent and what to be silent about. The Servant knows what is best for the greater good and understands that language and symbols have influence in the collective unconscious. The Servant also knows that some speech is foolish and learns how to speak another language to communicate similar things. The Servant certainly knows how to hear and listen so that nonsense is not repeated. The Servant knows not to speak infallible nonsense to fallible people and is realistic about social space, politics and suffering. The Servant knows that some language doesn't serve the community well because they feel the needs of the community as participant helpers.

These are critical metaphors needed for the risk industry.

Practical Tools to Help Tackle Fallibility and Risk

When my team and I do onsite coaching and training of managers and leaders I try to help them listen to the 'silences' as much as to the noises on site. It is just as important to know what is not said and why it is not said, than it is to be alert to what is said. The most significant focus of the risk industry is on 'telling' not listening. Many in the risk industry neither know how to ask questions or how to listen.

It's easy to observe and hear the visible and audible. It's much more sophisticated and skilled to be able to observe and listen to the invisible. Some of the tools we provide for people and organisations are the *Layers of Risk* and

Risk Listening tools. See Figure 46. *Layers of Risk* and Figure 47. *Risk Listening*. These are simple model semiotics for helping people listen beyond the physical, to expect and listen for psychological, social and cultural indicators in dialogue.

Being silent and listening is the key to learning and tackling risk. Listening has to occur in Workspace, Headspace and Groupspace©™.

Please Note. Trade Mark and Copywrite

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Figure 46. Layers of Risk



Figure 47. Risk Listening



The *Layers of Risk* tool is complemented by several iCue Tools for example: *The Open Question iCue* and *Conversations iCue* Tools. See *Figure 48. Open Question iCue*, *Figure 49. WS, HS, GS Listening Matrix*, and *Figure 50. Conversation iCue* and *Figure 51 The Risk Memory iCue*. The idea of the iCue[©]™ is about listening and risk intelligence. If one wants to be skilled in *Risk Listening* then one has to know what one is listening for.

Figure 48. Open Question iCue



Figure 49. WS, HS, GS Listening Matrix

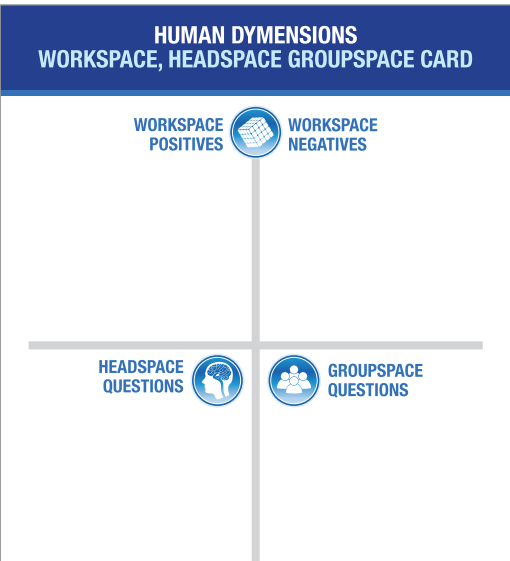
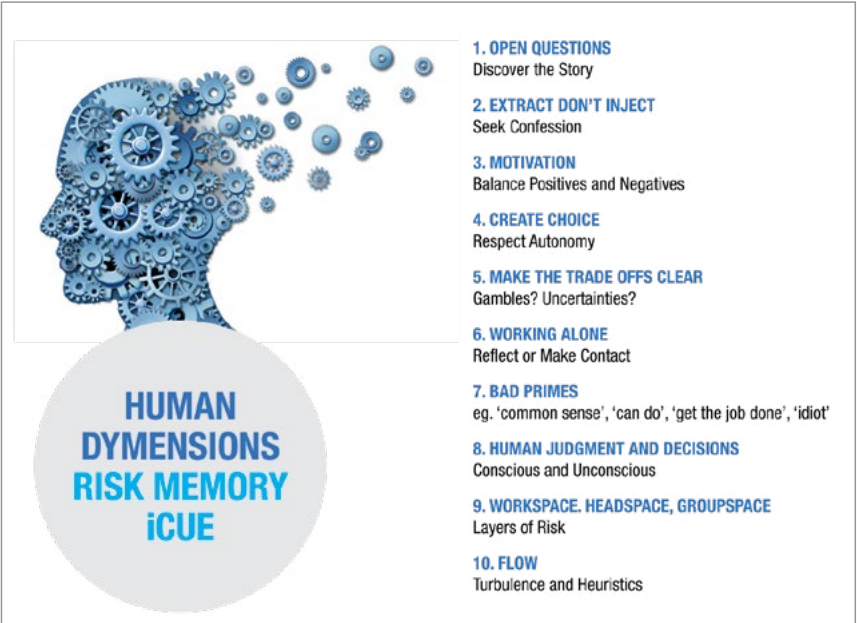


Figure 50. Conversation iCue.



Figure 51. Risk Memory iCue



We also help Supervisors, Managers and Leaders with a range of tools that assist in dialogue and presentation. These are the Dialogue Do's and Don'ts Tool See *Figure 52. Dialogue Do's* and *Figure 53. Dialogue Don'ts* tools and the Presentations Do's and Presentations Don't tools. See *Figure 54 Presentations Do's* and *Figure 55. Presentations Don'ts*.

Figure 52. Dialogue Do's



DIALOGUE DOs

LISTENING Active orientation, 'attending', suspend agenda	PEOPLE-CENTRED Humble Inquiry, learning, bias consciousness
KNOW YOUR AUDIENCE Respect, rapport, relationship	OPEN QUESTIONS Seek a sequence, discover story, reframe
ESTABLISH UNDERSTANDING Reflect, feedback, mirror	CLEAR LANGUAGE Eye contact, body language, trajectory
CREATE SPACE Tune in, take time, trust	KNOW POWER Tolerance, practice presence, negotiate
HELP-SUPPORT Homework, research, content	HEURISTICS Minds 1&2, arational, trade offs

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Figure 53. Dialogue Don'ts



DIALOGUE DON'Ts

TELLING Control, spoon feed, dumb down	MISDIRECTION Negative anchoring, non-disclosure
INTERRUPT Prioritize own agenda	BLAME Sunk cost, ego, binary oppositions
TRIANGULATION Gossip, projection, secrets	HIDDEN AGENDA Baiting, leading questions,
BUSINESS Rush, impatience, transference	MICRO-MANAGE Fear, policing, above
BLUFF Defend, attribution, spin	INCONGRUENCE Technique, therapist, fixing

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Please Note: You will notice that the Dialogue Don'ts tool uses an image of a male and female not communicating, this is intentional. A significant part of the training we undertake in communication takes gender distinctions into account. This is also why in the final part of this chapter that the new language suggested for the risk industry is put forward not by me, but by a conversation with five female colleagues.

Figure 54. Presentations Do's



PRESENTATION DOs

UNDERSTANDING AND COMMUNICATING YOUR PURPOSE
Audience, rationale, motivation, psychology of goals

FRAMING
Meetings, emails, communications

DOCUMENTS
Is this draft, for consultation, for criticism, an open meeting, a brainstorm session, feedback?

DISCUSSION AND FEEDBACK
Define, How will this be 'managed'?

CRITICISM
How will criticism be 'framed' and 'invited'?

OMISSIONS
What will be omitted? Trajectory? Confusion? Doubt? Guessing? Conflict?

NARRATIVE
'War' stories, relevance, self

PLACE AND SPACE
Where, when, what, who

STATEMENTS AND QUESTIONS
Balance, open, leading, interrogative, rhetorical questions

PRACTICE
Importance, objective, outcome, effect

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Figure 55. Presentations Don'ts



PRESENTATION DON'Ts

ASSUMPTIONS
Audience guessing, everyone at same level, common sense

GRAPHICS AND VISUALS
The tyranny of text, talking at, talking to

DEATH BY POWERPOINT
Semiotics, symbols, significance

HIDDEN CURRICULUM
Overt and covert learnings

DE-PERSONAL
Face to face priority, group/individual

THE EMAIL TRAP
Think, reflect – send

TRIANGULATION
Cross purposes, hidden agenda

FOLLOW-UP
Articulate, confirm, do

LANGUAGE, PRIMES, ANCHORING
Concerns/challenges vs Worries/problems

NECESSITIES VS OPTIONS
Hazards vs risks

PRIMING – ANCHORING
Close, exit, stickiness, trajectory

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Learning from Dr Murkes

When I was in Year 12 I completed my 5th year studying German. Year 12 German was a challenge in Adelaide at the time especially as most of the kids in the class were of German descent and spoke German freely at home. Adelaide was the centre for German immigration in 1838 and were the largest immigrant population in Australia until 1914. I'm certainly glad that the first ship of German immigrants as Lutheran dissenters were wine growers. A visit to Handorf South Australia is a must. In year 12 German was the only choice I had, as all other subject lines would have stuck me in Maths, Chemistry or Physics. I dropped those three in year 8 and this made for a smooth and successful pathway in High School. Everything in Year 12 German was in German, including anything we answered in class and everything we read. Just like in English we studied a novel and a drama in this case *Andorra* (Max Fritsch) and *Doktor Murkes Gesammeltes Schweigen* (Translated: Dr Merkes Collected Silences) (Heinrich Boll). https://en.wikipedia.org/wiki/Murke%27s_Collected_Silences.

The bizarre story of Dr Murkes is about a broadcaster who collects discarded tapes of silences and each night splices the silences together. Through these silences and editing work Dr Murkes (Heinrich Boll) learns about the idiosyncracies of the main character and also the nature of Nazi propaganda.

Silence is often the forgotten component in communication. It is in silence that authentic communication becomes 'present' for example, gestures, facial expressions, body language, signs, ritual, visual literacy, special literacy and non-rational forms of exchange. When in love, when there are no words, it is often in non-text forms of communication that we experience unspeakable things eg. joy, anxiety, suffering and trust. As Polanyi in *The Tacit Dimension* states, 'we know more than we can tell'.

More Than Words

As I sat playing some games with my grandchildren the other day I was overcome by their energy, innocence and desire to learn. It is often in play that we see the characteristics of personality and will most demonstrated. As I joined in the activity I could see one striving to win and the other giving up because she could see she couldn't win. Then by chance something changed and the tables were turned. It was amazing to see the power of competition working on them like an invisible force and so much was happening at once that there was little time to reflect about how the play was creating and influencing each one. It was instructive to be able to tell the difference between noise and distress, between anxiety and risk. It was also enjoyable to watch them learn and develop through the play various values of trust, fairness, respect and hope. So much happened so quickly and automatically sponsored by the play. Then in times of conflict they sought arbitration from me the adult but had I intervened it would have jeopardised the learning and the presence of my policing would have changed the whole climate of the play. Play is best defined by the absence of adult controlling interference. As it was I refrained from any role and just observed and listened as the play helped shape their learning.

In the lyrics of Extreme's wonderful song: 'More than words is all you have to do to make it real'. Sometimes we fall into the trap of thinking 'noise' and 'telling' is communication, when on many occasions 'silence is golden'.

Silence gives opportunity for listening, reflection and active communication. Similarly in risk, we are often bombarded with answers to questions we never asked. Someone else seems to know what I need and justifies their roughshod quest to control my right to exercise choice. If we are to empower others to ownership then silence becomes a precious quality. One thing is for sure, a data dump is not communication and content is not learning.

Practicing silence is a persona one ‘turns on’ as an essential to active listening. In order to listen one needs to do a few things:

1. Suspend agenda, this means not carrying one’s own messages over the needs of the other
2. Practice ‘attending’, this means understanding the art of Unconditional Positive Regard.
3. Suspend the disposition of ‘fixing’, this means letting others have the opportunity to determine their own needs.
4. Learn to facilitate, this means becoming a good questioner, not with loaded questions but open questions.
5. Don’t fear silence, you don’t have to fill the air with anything. It is only awkward because you haven’t practiced it.
6. Walk and observe without policing, help others to stop and reflect on what they are doing without holding bullets loaded in an invisible gun.
7. Do something that is imaginative and creative on your own where silence can be practiced.
8. Learn to ask questions that enable others to own their own challenges.
9. Reframe your understanding of Risk Management as a helping profession.
10. Repeat item one.

Real Meeting and Silence

In *Tackling Risk, A Field Guide to Risk and Learning* a significant level of discussion concerned the importance of a triarchic rather than a binary worldview. The binary worldview understands the world as: either/or; black/white; good/evil and subject/object. Such a worldview doesn’t understand any grey inbetween or movement between the poles of the dualist/binary view, this is how extremism and fundamentalisms are maintained. Compromise or entertaining the idea of a mediation or a moving middle is understood by the fundamentalist worldview as being indecisive or ‘wishy-washy’. The binary worldview gives assurance and comfort in a static position, the last position it wants to take is one inbetween.

Humans are social beings and are defined socially. There is no such thing as a single person there is only i-thou (Buber, (1958) *I and Thou*.). What Buber captures in the i-thou is the fundamental foundation of human social reality. This little expression and symbol powerfully demonstrates the dialectical activity that happens between all humans, we call it relationship.

This little hyphen signifies all the social activity between ‘us’ and ‘we’. Individualism is the ideology of ego and selfishness whereas, the i-thou is the symbol of community, engagement and relationship. The i-thou is lived out in the dialectic of: followership-leadership, us-them, now-not yet, as-if, subject-object, the one-the many, order-disorder, fragility-anti-fragility, faith-reason, time-eternity, freedom-necessity and if-then. The SOCIAL Psychology of Risk emphasises the fact that all risk for humans has a social element even when we feel alone. The i-thou emphasises the triarchic nature of social relationship and the importance of movement in learning. It is in the movement across the relational hyphen that humans engage with each other. A model of a static absolute loses any hope of movement and learning.

It is in the triarchic movement across the hyphen that learning occurs, this is what is known as an existentialist dialectic and this comes from Buber, Ellul and Kierkegaard.

If language is the bedrock of culture then it must be the starting point for culture change and building a foundation to live fallibly with risk.



Language Audit

One of the foundational activities I undertake in organisations to help them understand themselves and their culture is a *Language and Discourse Audit*TM. This is more than just a reflection on common words but rather an understanding of what language is available to people in the organisation and what is not available to people in the organisation.

We undertake the audit ensuring the audience is not 'primed' or 'framed' by particular thoughts or language at the start of the activity. This means it is usually done first up first day of engagement.

It is important to be well educated in semiotics, visualisation, language and discourse to undertake such an audit. Otherwise, it is just a collecting of words and reflecting on prejudice. Language is about much more than just words but includes the whole way words and grammar organise people. The SPoR understanding of discourse comes from Discourse Theory as a part of Critical Theory and denotes the power and trajectory of language hidden in the grammar and language of semantics. When one understands the power of text as semiotic and sign/symbol system then one can better interpret why certain language is available to an organisation and why other language is not. A binary discourse enables language of brutalism trapped in a discourse on objects whereas a dialectical organisation exhibits language focused on subjects and learning.

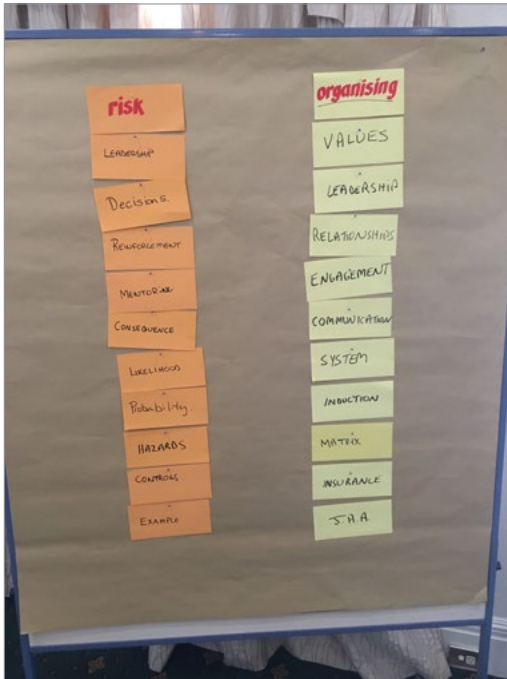
We start by getting people in groups (see *Figure 56. Language and Discourse Audit*) who brain storm together in a Freudian way (using tacit and implicit knowledge) and just collate twenty words or more in response to key words used by the presenter eg. 'risk' and 'organising' see *Figure 57. Risk and Organising Language and Discourse*.

The audit is undertaken in several 'rounds' and takes about three hours to complete properly. Once groups have sorted words, they are then prioritised and ordered according to significance. The language is then ranked according to Workspace, Headspace and GroupspaceTM in order to understand where the discourse of the organisation requires greater balance and focus. A range of heuristics and biases are also introduced to help understand at what level of maturity the organisation understands itself in relation to risk. They are mapped to the Culture Cloud, first introduced in Book Three *Real Risk*.

Figure 56. Language and Discourse Audit



Figure 57. Risk and Organising Language and Discourse.



A Better Language for Risk

The risk industry needs a better language in discourse about risk. We know that language is the bedrock of all culture and that the way we speak shapes the way we organize. Weick (*The Social Psychology of Organising*, 1979, p. 3) calls organizing: ‘consensually validated grammar for reducing equivocality by means of sensible interlocking behaviours’. One of the fascinating calls of the World Congress on Safety 2017 (see [Capability Framework](http://singaporeaccord.org/box/INSHPO,CapabilityFramework-3c,SingaporeAccordReference.pdf) <http://singaporeaccord.org/box/INSHPO,CapabilityFramework-3c,SingaporeAccordReference.pdf>) is that it wished to move away from the safety as policing model and become ‘professional’ but then maintains throughout the Accord all the old language of policing and compliance mandated by the absolute of zero? There will never be a change from the policing model in the risk industry until there is a change from absolutes and policing language.

So where might we find this ‘new language’ to reform the risk industry so that it can become professional?

Recently some women interested in the Social Psychology of Risk (SPoR), gathered together to talk about: the challenges of being women in male dominated workplace, the nature of life, learning and risk. They gathered together in an ad hoc way, there was no script and no prior practice, just each responding from their ‘heart’ to the question: ‘how do we live in the world?’

If you listen to the video (<https://vimeo.com/237511120>) maybe this is where we can find the new language required to reform the risk industry. To help I have listed the key words and language from the video of each of the women and ask the question: ‘Is this how people in your organization speak about risk?’ Is this the new language Risk Management has been looking for?

Narelle

- Connection
- To myself and others
- How I see myself in relation to others
- Relationships
- Values, honesty, integrity, care and compassion for others
- Reflection and conversation
- Observation of language, body language and environment
- What this means for self and others
- Not telling but questioning
- Methods not leading to dead end
- Enhancing discovery
- Encouraging, helping

Dee

- Nurturing self
- Understanding who I am and how I feel
- Bring about awareness in others
- An enabler between people
- Bringing about a space between people
- So they can discover who they are
- Nourishment and sustain relationships
- My soul, my psyche and my career
- Cope with stressors of life and organisation
- Balancing act
- Survive well
- Perception of human/people skills as 'weak' and 'soft'
- Promoting others
- 'Sacrificial lamb' not at own sacrifice
- Semiotics in FIFO camps, control and constraints
- Metrics and measurement as constraint in relationships
- Isolation and fracturing in FIFO world

Gab

- Challenging
- Vulnerability
- Food as caveat – friendships and nourishing
- When to be vulnerable
- Letting go
- Coming to the table
- Awareness of risk of vulnerability
- Who am I vulnerable with?
- Authenticity challenge
- Can we be 100%?
- Being a social Chameleon
- Listening
- Pick up language and symbols
- Ethics
- Adaptability – method unconscious to the other
- Being present – meeting/trust
- Men constrained by inability to be vulnerable
- Feminine touch – human skills

Zoe

- Creating meaning
- True to self
- Authentic
- Not compromise to self
- Make mistakes and learn
- Wisdom and discernment
- Discover if compromising values
- How the environment shapes me
- Recognising social environment
- Power
- Support network
- Safe to express ideas
- Alone at times
- Journey
- Maturity not confined to gender
- Helping
- Courage – knowing self
- Relevance to my why
- Alignment of my why to others why
- What is the purpose
- Freedom to innovat

Jenny

- Strength and quality of relationships
- Messy world of connections, networks and influences
- How do I show up in the world?
- How am I as a person
- Context and social situation
- Discovery
- Listening
- Signs and symbols
- Struggle in authenticity
- Hiding
- Spoken and unspoken rules
- Freedom to express without retribution and judgment
- Bring others together
- Awareness of In-group and out-group
- Introduce to new paradigms
- Create space safe to speak
- Being grounded
- Having a voice and giving others a voice

So, there you have it. I think there are many words in this conversation that we don't hear much in the risk industry. We hear far too much about intolerance and absolutes, zero and compliance and many of the people words are missing language. Perhaps you might like to get more of these words into your risk and safety conversations at work and watch the culture change.

Making Technicians not Helpers

People who enrol to study at The Centre for Leadership and Learning in Risk (CLLR <https://cllr.com>) already have graduate and post-graduate qualifications in the risk industry. Near all without exception, are looking for the skills and knowledge that is excluded from their training and qualifications. Many report that their qualification has been primarily technical with a high focus on paper-systems, regulation, legislation, process and systems. One participant recently commented about his post graduate studies and said:

... most of the curriculum I was funneled into, I will never use ... if we need knowledge on regulation and legal requirements my organization calls a lawyer, if we need help with cardio-vascular disease or muscular-skeletal issues we call a physio, and so on. What I need is people, communication and helping skills.

I have these kinds of conversations daily. It seems that the safety industry believes it needs to create technicians not helpers. If anything, the current state of curriculum could be described as compulsory mis-education .

The safetyosphere is consumed with technical jargon, technical iconography and semiotics and, technical worldview. How did an industry that wants to HELP people develop ownership in tackling risk end up looking to technicians to develop curriculum for people in tackling risk? How has the risk industry emerged as a technical process when in reality when you get on the job it's a people/helping activity? Why is it that even when it comes to psychology that the risk industry has its primary focus on the technical paradigm of behaviourism? Why is it that Risk understands humans as a factor within a system?

All of the courses in CLLR have everything to do with risk but have nothing to do with traditional Risk Management discourse. When you do a CLLR program you never hear the word 'safety' unless it is discussed as an outcome. Mostly the language is about people, helping, communications, decision making, risk and the collective unconscious as culture.

Here is a list of some of the practical skills and knowledge gained in studying with CLLR:

Helping Skills

- Active and Reflective Listening
- Attending
- Humble Enquiry

People Skills

- How Social arrangements influence decision making
- How semiotics influence decision making
- How space and place influence decision making

Learning Skills

- How people learn?
- How to construct learning by style and type
- Strategic learning

Communication Skills

- Observation and Listening Skills
- Suspending Agenda, Pitch, Frame, Prime, Anchor and mirroring skills
- Dialogue skills

Facilitation Skills

- Constructing meaningful curriculum
- Making inductions learning events
- Strategic thinking

Semiotic Skills

- The semiosis of meaning
- The social meaning of motivation
- How semiotics shapes perception

Critical Thinking Skills

- Understanding deconstruction
- The meaning of power
- Social politics and ethics

Observation Skills

- How to observe
- How to listen and look for the collective unconscious
- How to hear for semiotic influence

Pitching, Priming, Framing, Mirroring and Anchoring

When one understands: the power of semiotics, the collective unconscious, social organising, perception and influence, motivation and the hidden curriculum then, one knows the importance of discourse, language in pitching, priming, framing and anchoring.

It was Marshall McLuhan (1964) who stated: 'The Medium is the Message' meaning, we communicate much more what we say in the way we say it than in the content of the message. In education this is called the Hidden Curriculum. In the language of zero the hidden message is the expection of perfection. As Baudrillard (2008, p.26) states:

... the message of the railway is not the coal or passengers it transports, but a new vision of the world, a new state of conurbation. The 'message' of TV is not the images it transmits, but the new modes of perception and relations imposed by it, the alteration of the traditional family or group structures.

This is why the Social Psychology of Risk places a high emphasis on relationships, communicating to the unconscious, the collective unconscious and pitch, frame, primes, mirrors and anchors in communication. One thing is for sure, the framing of living through the lens of perfectionism is a recipe for angst, failure, frustration, depression and anti-learning.

People are not just bodies and brains but are persons who are the embodiment of language. Metaphor is the fluid that fills the collective unconscious. When we speak and communicate text, symbols and signs we speak to the conscious and the unconscious. When we access poetics, drama, art, dance, gesture and music we communicate deeply to the unconscious individually and collectively. How we frame discourse and language creates the pathway for growth, development, maturity and learning. Understanding how language as semiotics does this enables astounding skills in understanding and tackling fallibility in risk.

The Art of The Haggle

I learned the art of haggling in Shanghai China. My wife and I were walking the streets behind The Bund in Shanagai and my attention was captured by a mess of wires in one of the back streets. The tangle of wires on the poles reminded me so much of the rhizome and these were all electrical wires carrying power for that part of the city and the mess was unbelievable but it obviously worked. See Figure 58. Shanghai Wires.

Figure 58. Shanghai Wires.



We walked around as typical tourists oblivious to many things and enjoying the diverse experiences and sights. We were attracted to a small store selling silks, scarves, clothing, mats and posters. The shop was open to the street and this is where we were beckoned into the store by Mei Ling. Mei had a sharp wit, quick mind and had seen plenty of Westerners before with money to spend. Mei was the global expert in pitching, framing, priming and anchoring and yet as far as I could tell, had had no lessons in NLP.

As tourists we must have been hanging out the 'suckers' shingle that day and despite focusing on not being ripped off and being disciplined, we walked away needing an ATM with Mei giving us lesson 101 in haggling.

On every item Mei knew that the **pitch** of price for the item that we were interested in had to be high. (There were no price tags on any item). Mei knew that the initial price always **anchors** the customer, from then on this price **frames** all following barter and negotiation. Mei also learned very quickly about our interests, age, sense of humour, country, background, occupation and worldview and quickly adapted her pitch to our **frame/worldview**. As she moved about the shop she was able to prime our thinking by visual references and was even able to **pitch** language between my wife and I to her advantage. She picked up on our words and **mirrored** them back to us in ways that helped her **anchor** our thinking to her expected price. We moved from a casual purchase of one item to walking out of the shop with two bags full of items. This is despite the fact that I knew what Mei was doing and yet I was so entertained and captivated by her self-taught method.

One of Mei's favourite and repeated phrases was 'no joking'. When she offered a heavily discounted price from the anchored price she would repeat the words 'no joking'. In other words, I have done you such a good deal from the real price that you might think this is a joke, and yet primed by the third price she was probably still making a 300% profit. All of this encounter took 30 minutes and have never had so much fun in my life. You can see Mei haggling with my wife in *Figure 59. The Art of The Hagggle*.

Figure 59. The Art of The Hagggle



What we learn from the art of haggling is how the conscious and unconscious mind can be so influenced by the way language is framed. This is why language is critical in the process of living in risk. The way we pitch, frame, prime, mirror and anchor often determines the unconscious decision and later actions of people. If we pitch, frame, prime, mirror and anchor within a discourse of perfectionism, absolutes and zero we set the culture of organising by that language. Everything that follows is anchored by that discourse. Everything in such discourse speaks nonsense to fallible people.

So Where to Next?

The key to living with fallibility in risk is living in the boundaries of sense-able fallibility. Doing so requires skills and understanding, education and training in the fundamentals of effective questioning, skilled listening and understanding how this all fits together as testimony to the collective unconscious. One cannot come to the frame of fallibility in risk from the binary worldview. One cannot prime people for everyday decision making in risk with a frame of perfectionism and absolutes.

The risk industry needs to step out of the absurd discourse of zero and transhumanism and step into the realities of living with fallibility in risk.

Workshop Questions

1. What language does your organisation use to define fallibility in risk?
2. What tools for engagement are used in the workplace to make risk-tackling a human process?
3. Does listening to others and silences to heroes and transhumanism feature in your organisation?
4. How is the tackling-risk message frames, pitched, primed and anchored in your ordinary everyday discourse?
5. How does your organisation empower you and others for faith, hope, trust and love in what you do?

What You Say

When messy life crushes hope and
we think we cannot cope.
The faith we scope in hope,
builds trust in other's cope.

This social malaise, this rhizome of the faithful,
opens doors, possible scores of music ever hopeful.
Suffer the loss, that momentary cross,
in vision teleiological.
It's not a cross, of binary dross,
but living ontological.

Yes, we learn to lose, early in crawl,
but unconscious to the minus.
Yet, wickedity waits, liminality awaits,
For living in maturity.

I want no perfection talk,
to frame my walking day.
I need no projected corn stalk,
to shape your expected way.

The symbols of hope in real faith
that trusts collective love.
Remain resilient, sisu light,
to *angst* and zero's shove.

The Lily speaks and bird sings out
the lyrical lovers task.
The i-thou breaks, the mind awakes,
To what it means to risk.

CHAPTER 7

Glossary

Glossary

Archetype: A collectively unconscious dynamic, force or power that operates outside of human influence in the world. Carl Jung, c. 1919 defined archetypes as innate, universal prototypes for ideas and may be used to interpret observations.

Binary Opposition: Is the system by which two theoretical opposites are strictly defined and set off against one another in simplistic and fundamentalist logic of either/or and good/evil. The binary question allows for no dialectic or triarchic understanding or multiplicity. In binary questioning one presupposes only one answer with no grey or in-between state. Binary opposition originated in Saussurean dualist structuralist theory. The typical binary question in risk is: 'How many people do you want harmed today?'

Cognitive Dissonance: developed by Leon Festinger. Refers to the mental gymnastics required to maintain consistency in the light of contradicting evidence. It involves deep psychic pain experienced in association with contrary evidence to strongly held belief.

Collective Unconscious: Coined by Carl Jung, refers to structures of the unconscious mind which are shared among beings of the same species. According to Jung, the human collective unconscious is populated by instincts and by archetypes: universal symbols such as The Great Mother, the Wise Old Man, the Shadow, the Tower, Water, the Tree of Life, and many more.

Critical Theory: Critical theory has its roots in marxist, post-marxist and poststructuralist traditions. Developing from the Frankfurt School and semiotics, the tradition of critical theory seeks to deconstruct grand narratives that foster ideologies of power and oppression.

Dialectic: The idea of dialectic denotes the interaction between opposing forces and concepts, the thesis and anti-thesis. The idea of dialectic in the Social Psychology of Risk is not in the traditional understanding (originating in Hegel) of a synthesis between a thesis and antithesis but rather the coexistence and non-resolution of opposites and acceptance of the tension of opposites. This approach comes from Kierkegaard, Ellul and Jung and is known as 'existential dialectic' and has a focus on learning in what is mediated. An existential dialectic accepts dialectic as a Wicked Problem and understands that a flow (movement) in dialectic is essential for learning, relationships and living.

Discourse: Developed by Michael Foucault, the use of the term 'discourse' in this book is intended to convey the power transmitted in text; all texts. Whether it be the spoken word, symbols or words/language as symbols (semiotics), the question, 'where is the power?' is critical. Weick calls this the 'grammar' of risk. Others discuss the power in texts as 'framing' and 'priming' (Bargh). Discourse refers to much more than linguistics. The very

structure of how we communicate holds embedded power. Discourse analysis searches for this power in the sometimes hidden 'discourse' embedded in language, semiotics and text. Discourse is just as interested in the 'function' of the text (spoken, symbol, language and action) as the 'structure' of the text. It is because language reveals ways of structuring ideas, knowledge, symbols and social practice.

Fundamentalism: Originally coined in reference to a rigid theological movement in the USA in 1905 upholding the literal interpretation of the Bible. More generally, fundamentalism refers to rigid faith like black and white thinking and actions on issues.

Hegemony: A hegemony is the rule of a dominant idea or group. It denotes the control of one state of being over all others. In Social Psychology, particularly with roots in post-Marxist ideas hegemony most often refers to 'cultural hegemony' as developed by Antonio Gramsci. Gramsci uses the word 'hegemony' to mean the ways in which governing powers win consent and dominance over whom they subjugate.

Hermeneutics: Hermeneutics denotes theories of interpretation and is most associated with its roots in understanding biblical texts. The modern hermeneutics (emerging from the school of Social Psychology) is more about general interpretation and communication influenced by social and psychological arrangements. The work of Jacques Derrida in particular needs mention and the development of deconstruction.

Interpreting and deciphering text is a critical aspect of discourse and semiotic analysis. It is important to note for the purpose of this book that humans are to be understood as text just as text has symbolic significance. For example, words like 'error', 'zero' and 'taboo' have symbolic and mythical significance as they say much more than just their meaning as a word. Words as symbols point to a history and narrative that have metaphorical significance. Metaphorical language opens up possibilities in interpretation and meaning and hermeneutics makes plain the hidden meanings of a text particularly, the trajectory of those meanings.

Heuristics: Refers 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 search is impractical. Heuristics tend to become internal micro-rules that enable rapid decision making. In time many heuristics become 'automatic' and operate unconsciously in human decision making.

Hidden Curriculum: Refers to the real and underlying learnings in any activity. The concept of the Hidden Curriculum is closely associated with the idea of by-products and trade-offs. It means that one may commit to an action and yet hidden in the method people learn something entirely different from what is espoused. In education circles this is thought of as a 'side effect' for example, children may be made to line up to get into class to create order but at the same time this process reinforces other forms of social reproduction associated with authority, submission, obedience, gender bias etc.

Myths and Symbols: It is also important to define what is meant by 'myth' in the study of religion. To quote Ricoeur (1967) *The Symbolism of Evil*. Harper and Row, New York. P. 5:

Myth will here be taken to mean what the history of religions now finds in it: not a false explanation by means of images and fables, but a traditional narration which relates to events that happened at the beginning of time and which has the purpose of providing grounds for the ritual actions of men of today and, in a general manner, establishing all the forms of action and thought by which man understands himself in the world.

According to the positivist worldview, myth cannot be an explanation of existence and must be demythologized in favour of a materialist understanding of existence. In doing so the positivist STEM-only worldview disconnects thinking from an historical understanding of religion and re-defines myth as a concocted falsehood. The focus of STEM-only thinking is on objects not subjects. In so doing, the positivist assumption in seeking objectivity adopts an ahistorical view of significance robbing myth of its symbolic power.

Whilst much more could be said about the closed STEM-only worldview it might be best to point towards the likes of Jung, Campbell and other scholars of semiotics such as Yelle, R., (2013) *Semiotics of Religion, Signs of the Sacred in History*. Bloomsbury, London for a more complete understanding.

It is from a semiotic understanding of myth/symbol that one gets a more comprehensive understanding of religion and therefore of culture.

Myth connects the empirically real with the mystical and sacred in the form of signs and symbols and thus portrays how the world is with how people would like it to be. We see such an appropriation of this understanding of myth in popular culture and movies. Many of the blockbusters in the last 10 years have been focused on transcendence, the sacred and mythological explanations of the world.

It is in myth and symbol that we find the yearning to express the search for transcendent meaning. The primary purpose of myth and symbol is to help manage perceptions of chaos, equivocality and fallibility. In the face of pain, harm, suffering and death many construct meaning unfortunately in a binary sense, in order to make sense of the problem of evil. Myth and symbol open up possibilities and imagination whereas the binary STEM-only worldview closes down and seeks answers to life without the dialectic of Mystery.

So, when we speak about the religiousness of risk what is implied is entry into the myth, symbol and transcendence of religion in cultural exchange. Unfortunately with a STEM-only approach to being one is simply not equipped to perceive such drift into religiousness or discourse in transcendence. Hence the STEM-only worldview doesn't have the intellectual equipment to examine its own religious journey.

There is no greater example of sacralization in the risk industry than observing how risk rituals have become infused with religious significance.

Ontology: The philosophical study of the nature of being, becoming, existence, or reality, as well as the basic categories of being and their relations.

Paradox: Paradox is a close associate of Wicked Problems, dialectic and Hidden Curriculum. The acceptance of contradictions coexisting is essential to accepting a state of paradox. A paradox opposes the idea of a theory of non-contradiction as a 'proof' of truth. The acceptance of paradox and dialectic is essential to the thinking of Kierkegaard, Ellul and Jung.

Phenomenology: The philosophical study of the structures of experience and consciousness. With particular interest to the philosophy of Paul Ricoeur (27 February 1913 – 20 May 2005). Ricoeur was best known for combining phenomenology, semantics and semiotics with hermeneutics. Ricoeur's works *Fallible Man*, *The Rule of Metaphor* and the *Symbolism of Evil* are particularly pertinent to this discussion in this book.

Positivism: The philosophy founded by Auguste Comte (19 January 1798 – 5 September 1857) regarded as the founder. Sometimes regarded as the first philosopher of science Comte asserted that all authentic knowledge must be empirically verification and that all authentic knowledge assumes that the only valid knowledge is scientific.

Religion: Throughout this book it will be asserted that the risk industry thinks, speaks and acts religiously whilst the religious world more and more thinks, speaks and acts secularly. This brief introduction to religion is necessary in order to frame meaning and definition for understanding the nature of religion attributed in this book.

We are told that injury, harm and suffering were once perceived as 'acts of god' but are now conceived as 'acts of man' (sic) or 'acts of humans'. This is the new commonly accepted thesis branded as 'the scientific view'. The idea that injury, harm and pain are 'acts of god' is supposedly now perceived as 'primitive' because we apparently now understand causality 'scientifically'.

But what if the 'scientific' construct of causality were not true? What if the current understanding of the nature of pain, suffering and harm were simply the result of a binary worldview? What if the traditional constructs

of theodicy (theory of good and evil) were not true? What if pain, suffering and harm were neither the responsibility of humans or god? What if disaster and suffering were beyond the binary theology of heaven and hell? What if neither god nor humans were at fault or to blame? What if there was a theology that wasn't confined to Abrahamic paternalism or Augustinian theodicy? There is other thinking other than the binary constructs of fundamentalism.

One's worldview about suffering, pain and harm depends on one's hermeneutical (theory of interpretation) framework. The hermeneutic of this book is from an existentialist dialectic as was explained in book six, *Tacking Risk, A Filed Guide to Risk and Learning*.

It is interesting to observe the language of 'culture' and 'religion' being used freely in the risk industry without definition or at best poor definition. Yet, study in religion, ethics, metaphysics, theology and philosophy are not part of any risk, security or safety curriculum. For example, the definition of culture in the Safety Institute of Australia Body of Knowledge (SIABoK) is profoundly inadequate. In the SIA BoK there is simply no discussion in discourse about culture that includes discussion of religion, semiotics and the collective unconscious? The absence of any discussion of semiosis, semantics or the semiosphere is problematic as these are central to understanding religion and culture. To discuss or define culture without thought to anthropology, sociology, religion or the collective unconscious is naive or at best deficient. Most diagnostic tools in the risk analysis sector that purport to analyse culture simply assess systems.

The literature in understanding Risk Management simply excludes any discussion of religion. Yet, the notion of risk, safety and security is predicated on a soteriology - a study of salvation. One cannot study the nature of culture without an understanding of religion. One of the most helpful and easiest summaries religion can be found here: http://faculty.smc.edu/ccraney/restricted/PDF/Basic_Characteristics_Religion.pdf. One can also access introductory books on religious studies like Myhre, P., (ed.) (2009) *Introduction to Religious Studies*. Anselm Academic. Winona. However, one can't really commence a study in religion without a solid understanding of semiotics (sign systems, iconography and symbols), culture and mythology.

It is also difficult to nail down a definition of religion itself simply because like culture, the seeking of meticulous definition highlights the limits of a text-only, rationalist thinking and the scientific paradigm. Particularly when the STEM (Science, Technology, Engineering and Mathematics) paradigm itself has a history in positivism that seeks to discredit non-STEM understandings of 'being'.

For the purpose of this book I will use a helpful definition of religion by Clifford Geertz in *The Interpretation of Cultures* (1973) Basic Books, New York to frame the discussion. Although, there are many other definitions that are helpful in studying religion from Schleiermacher, Tillich, Niebuhr, Otto, Eliade, Hick and Baudrillard, this simple overview by Geertz is sufficient.

Geertz defines religion by its function in human society. Using a semiotic approach Geertz argues that one must understand the meaning intended by religious behavior in order to understand its function as a religion. And for Geertz religion is understood as a cultural system with five critical aspects. These are:

1. A set of signs and symbols that serve to establish meaning.
2. A semiosis that establishes powerful motivations and climates.
3. The formulation of conceptions that explain existence.
4. The creation of factuality attached to conceptions and,
5. The establishment of myths of identity attached to reality.

The characteristics of religious practice present in risk industry discourse can be observed as follows:

Anthropology. The risk industry demonises human fallibility so that human error is understood as THE problem of evil. The dominance of behaviourism in the industry seeks to quantify behaviours so that they can be

controlled in an abstract mechanistic way as if disconnected from decision making and the unconscious. Humans are redeemed by 'works' of obedience and compliance.

Cosmology and Transcendence. Soteriology (salvation) forms part of a cosmology in particular, how fallible humans fit within a view of the world and universe.

Cultic Practices and Objects. The best way to understand the power of mantras, ideology and cultic belief is to suggest that they be done away with. One then quickly discovers the veracity of religious commitment to the mantra, semiotic or belief. Objects and practices such as risk matrices, pyramids, triangles, icebergs, swiss cheese, bow ties and dominoes have become sacralised by the risk industry but have no efficaciousness in either understanding risk or managing it.

Epistemology. Truth is founded in STEM-only knowledge even though there is little empiric evidence that popular risk practices and rituals 'work'. The risk industry theory of knowledge is binary and premised on fundamentalist hermeneutic of: good/bad, dark/light, birth/death, good/evil. The risk industry is characterised by 'telling' rather than listening and remains locked into a STEM-only worldview as if in a cult. Key principles of Risk Management are made dogma and are considered by many to be incontestable and 'given'.

Ethic. The ethic of the risk industry is focused on objects and is yet to establish 'an ethic of risk'. It does however have an ethic that is pragmatically determinist in a deficit worldview. Risk has come to mean danger and has shifted from an emphasis on probability of an event to danger of harm.

Irrational Belief and Faith. Many of the practices of Risk Management require extensive faith and belief. This is not more evident than in the ideology of zero harm. The efficaciousness of many rituals and practices is attributed rather than demonstrated by evidence.

Sacralisation. Many icons and practices that have no efficaciousness in managing risk have been given sacred status in the risk industry. For example, the Risk Matrix, trifl and LTI counting, The language of Risk Management forms its own code and grammar for the initiated.

Soteriology. The risk industry is consumed with language and discourse about saving lives. This is exemplified in language about Cardinal Rules, repentance, guilt, blame, defilement, sin, fatality, death, evil and absolutes. The soteriology is infused with the same level of guilt as one might experience in any mainstream religion.

Supreme Being. The deification of systems and regulation takes the place of a higher being with supreme authority so that safe acts in systems denote the supreme being in relation to the threat of non-compliance, risk taking and wrong doing. Even when the language of 'human factors' is used in the risk industry it denotes the notion of humans as factors in a system and is behaviourist in nature.

Semantics: The branch of linguistics and logic concerned with meaning. It is concerned with the relationship between signifiers—like words, phrases, signs, and symbols—and what they stand for. When anyone states that something is 'just semantics' they demonstrate they have no understanding of semantics. Semantics understands text and grammar as signs that denote units of meaning beyond themselves.

Semiosis: Is the study of meaning-making through signs systems and symbols. It should not be confused with the Saussurean tradition called semiology which is a subset of semiotics which dualist in structure. Charles Sanders Peirce defined what he termed 'semiotic' as 'the formal doctrine of signs', an irreducibly triadic process wherein an object, logically determines or influences something as a sign to determine or influence something as an interpretation or interpretant, itself a sign, thus leading to further interpretants.

Semiosphere: First named by Yuri Lotman as the sphere of semiosis in which sign processes operate in the set of all interconnected Umwelten (environment).

Semiotics: Is the study of sign systems and signification. The study of semiotics originates in the social psychological tradition through the work of Pierce (focus on signs/symbols) and Saussure (focus on semiology and the creation

of meaning). An understanding of semiotics is critical for understanding how the unconscious is influenced by all that is in the semiosphere (world).

Social Psychology: Is concerned with how social arrangements affect decision making. Many see the founder of social psychology in the work of Kurt Lewin and Gestalt psychology. Most notably social psychology emerged out of issues following WW2 associated with the Holocaust. The discipline is concerned with social influence on the psychology of people. It is also famous for experiments like those conducted by Milgram, Zimbardo, Asch and Bandura in the 1960s and 70s.

Soteriology: The study of the doctrine of salvation.

STEM: Meaning Science, Technology, Engineering and Mathematics. STEM knowledge is associated with the desire for measurement, positivism and reductionist thinking.

Tacit Knowledge: First introduced by Michael Polanyi, tacit denotes a way of 'knowing that we cannot tell'. It is the kind of knowledge that cannot be put into words but is known by 'indwelling'. Tacit knowing is 'emergent' and 'dialectic' thus enabling a 'kinship' between the learner and the unknown. Also known as 'implicit knowledge'.

Technique: Articulated by Jacques Ellul as the quest for total efficiency. Technique serves as the archetype for 'the totality of methods rationally arrived at and having absolute efficiency (for a given stage of development) in every field of human activity' - *The Technological Society* (1964).

Transdisciplinary: A common system of axioms that transcends the narrow scope of disciplinary world views through an overarching synthesis. It is about the transgressing of boundaries and the liberation of reason from the formalities of positivist thinking to multi-realities beyond multi-disciplinary and inter-disciplinary approaches to knowledge.

Transhumanism: The international movement that aims to transform the human condition by developing and making widely available sophisticated technologies to greatly enhance human intellect and physiology. Transhumanism is a futurist hope that one day the confines of fallibility will be no more. The enhancement options include radical extension of human health-span, eradication of disease, elimination of unnecessary suffering, and augmentation of human intellectual, physical, and emotional capacities. The biologist Julian Huxley is generally regarded as the founder of transhumanism. The most popular book on Transhumanism is by Ray Kurzweil *The Singularity is Near: When Humans Transcend Biology*.

Wicked Problems: Wicked Problems have no stopping rule. Solutions to Wicked Problems are not true-or-false, but better or worse. There is no immediate and no ultimate test of a solution to a Wicked Problem. 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.

Wickedness and Wickedity: The notion of 'wickedness' comes from Rittel and Webber (1973) who formulated ten characteristics of unsolvable problems. These ten characteristics of 'wickedness' were outlined in book three in this series *Real Risk, Human Discerning and Risk* (pp. 127). It is important from the outset of this book to be reminded of the nature of 'wickedness', these are:

There is no definitive formulation of a Wicked Problem (defining Wicked Problems is itself a Wicked Problem).

1. Wicked Problems have no stopping rule.
2. Solutions to Wicked Problems are not true-or-false, but better or worse.
3. There is no immediate and no ultimate test of a solution to a Wicked Problem.
4. 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.

5. 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.
6. Every Wicked Problem is essentially unique.
7. 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.
8. The planner has no right to be wrong (planners are liable for the consequences of the actions they generate).
9. Every Wicked Problem can be considered to be a symptom of another problem.

The notion of 'wickedness' extends beyond the idea of complexity and suggests that things that are 'wicked' can only be 'tackled' and can never be 'tamed'.

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 psycho-analytics and a negative understanding of the unconscious.



CHAPTER 8



References

- Amalberti, R., (2001) The Paradoxes of Almost Totally Safe Transportation Systems. *Safety Science*. 37. 109-126.
- Amalberti, R., (2013) *Navigating Safety, Necessary Compromises and Trade-Offs - Theory and Practice*. Springer. New York.
- Ariely, D., (2008) *Predictably Irrational, the hidden forces that shape our decisions*. Harper Collins. London.
- Arendt, H., (1958) *The Human Condition*. University of Chicago Press. Chicago.
- Ashhurst, C.A. (2012) *Taming To Tackling: Addressing Numeracy Achievement in Low SES schools as a Wicked Problem*. Master of Philosophy Thesis, Australian Catholic University. Canberra.
- Balthazard, C., (2015) What does it mean to be professional? *HRPA Series on Professionalization, Professionalism, and Ethics for Human Resources Professionals*. HRP.
- Bateson, G., (1972) *Steps to an Ecology of Mind*. University of Chicago Press, London
- Bauer, J., and Harteis, C., (eds.) (2012) *Human Fallibility, The Ambiguity of Errors for Work and Learning*. Springer. London.
- Becker, E., (1973) *The Denial of Death*. Freebooks Press. New York.
- Benner, D., (2011) *Soulful Spirituality, Becoming Fully Alive and Deeply Human*. BrazosPress, Michigan.
- Benner, D., (2016) *Human Being and Becoming, Living the Adventure of Life and Love*. BrazosPress, Michigan.
- Berger, P., (1969) *The Sacred Canopy, Elements of a Sociological Theory of Religion*. Anchor Books. New York.
- Berger, P., (1976) *Pyramids of Sacrifice, Political Ethics and Social Change*. Anchor Books. New York.
- Bettleheim, B., (1976) *The Uses of Enchantment, The Meaning and Importance of Fairy Tales*. Penguin. London.

- Birren, F., (2013) *Color Psychology and Color Therapy, A factual Study of the Influence of Color on Human Life*. Martino Publishing. Mansfield.
- Brown, V., Harris, J., and Russell, J., (2010) *Tackling Wicked Problems Through Transdisciplinary Imagination*. Earthscan, London.
- Brueggemann, W., (1982) *Genesis. Interpretation*. John Knox. Atlanta.
- Brueggemann, W., (1993) *Texts Under Negotiation, The Bible and Postmodern Imagination*. Fortress Press. Minneapolis.
- Brueggemann, W., (1997) *Theology of The Old Testament, Testimony, Dispute and Advocacy*. Fortress Press. Minneapolis.
- Brueggemann, W., (2001) *The Prophetic Imagination*. Fortress Press. Minneapolis.
- Buber, M., (1958) *I and Thou*. Scribner Classics. New York.
- Butler, K., (2017) *Zero Harm, Myth or Reality*. PhD Thesis. Queensland University of Technology.
- Carita, P., (2013) *Binary Opposition: A Spacial Configuration of Comparison of Opposite Properties Along a Meaning Dimension*. Lund University. Verona Italy.
- Christians, C., and Van Hook, J., (1981) *Jacques Ellul, Interpretive Essays*. University of Illinois. Urbana.
- Coeckelberg, M., (2013) *Human Being @ Risk. Enhancement, Technology and the Evaluation of Vulnerability Transformations*. Springer. London.
- Deely, J., Williams, B., and Kruse, F., (eds.) (1986) *Frontiers in Semiotics*. Indiana University Press. Bloomington.
- Dekker, S., (2006) *The Field Guide to Understanding Human Error*. Ashgate. Aldershot.
- Dekker, S., (2017) *The End of Heaven, Disaster and Suffering in a Scientific Age*. Routledge. London.
- Dekker, S., Long, R., and Wybo, J., (2016) Zero Vision and the Western Salvation Narrative. *Safety Science* <https://espace.library.uq.edu.au/view/UQ:398943>
- Danesi, M., (2017) *The Semiotics of Emoji, The Rise of Visual language in the Age of the Internet*. Bloomsbury, London.
- Deleuze, G., (1983) *Nietzsche and Philosophy*. Columbia University Press. New York.
- Douglas, M., (1966) *Purity and Danger, An Analysis of the Concepts of Pollution and Taboo*. Ark. London.
- Douglas, M., (1992) *Risk and Blame. Essays in Cultural Theory*. Routledge. London.
- DuPont, DuPont Bradley Curve. <http://www.dupont.com.au/products-and-services/consulting-services-process-technologies/brands/sustainable-solutions/sub-brands/operational-risk-management/uses-and-applications/bradley-curve.html> (Accessed 22 September 2017)
- Eliade, M., (1957) *The Sacred and Profane, The Nature of Religion*. Harvest Books, New York.
- Ellul, J., (1973) *Propaganda, The Formation of Men's Attitudes*. Vintage Books. New York.
- Ellul, J., (1976) *The Ethics of Freedom*. Eerdmanns, Michigan.
- Ellul, J., (1981) *Perspectives on Our Age, Jacques Ellul Speaks on His Life and Work*. HarperCollins, Scarborough.

- Ellul, J., (1989) *What I Believe*. Eerdmans. Michigan.
- Erdozain, D., (2016) *The Soul of Doubt, The Religious Roots of Unbelief from Luther to Marx*. Oxford University Press, London.
- Fine, C., (2006) *A Mind of Its Own, How Your Brain Distorts and Deceives*. Norton and Co., New York.
- Fontanille, J., (2007) *The Semiotics of Discourse*. Peter Lang. New York.
- Fukuyama, F., (2002) *Our Posthuman Future, Consequences of Biotechnology Revolution*. Profile Books, London.
- Geertz, C., (1973) *The Interpretation of Cultures*. Basic Books, New York.
- Gibbs, P., (ed.) (2015) *Transdisciplinary Professional Learning and Practice*. Springer. London.
- Gigerenzer, G., (2007) *Gut Feelings: The Intelligence of the Unconscious*. Viking, New York.
- Gigerenzer, G., (2008) *Rationality For Mortals, How People Cope with Uncertainty*. Oxford. London.
- Gillovich, T., (1991) *How We Know What Isn't So, The Fallibility of Human Reason in Everyday Life*. The Free Press. New York.
- Gladwell, M., (2000) *The Tipping Point, How Little Things Can Make a Big Difference*. Little, Brown and Co., Boston.
- Hallinan, J., (2009) *Why We Make Mistakes*. Broadway Books. New York.
- Hand, D., (2014) *The Improbability Principle. Why Coincidences, Miracles, and Rare Events Happen Every Day*. Scientific American. New York.
- Harford, T., (2016) *Messy, The Power of Disorder to Transform Our Lives*. Riverhead Books. New York.
- Hari, J., (2015) *Chasing the Scream*. Bloomsbury. London.
- Hassin, R., Uleman, J., and Bargh, J., (2005) *The New Unconscious*. Oxford University Press, London.
- Heinrich, H., Petersen, D., and Roos, N. (1950) *Industrial Accident Prevention, A Safety Management Approach*. McGraw-Hill. New York.
- Hill, S., (2013) *Confrontation with the Unconscious, Jungian Depth Psychology and Psychadelic Experience*. Musswell Hill Press, London.
- Hoffer, E., (1969) *The True Believer, Thoughts on the Nature of Mass Movements*. HarperPerennial. New York.
- Hollindale, R., (ed.) (1977) *The Nietzsche Reader*. Penguin Books. London.
- Hong, H., and Hong, E., (eds.) (2000) *The Essential Kierkegaard*. Princeton University Press. Preinceton.
- Hudson, P., (1999) *The Human Factor in System Reliability – Is Human Performance Predictable?* RTO HFM Workshop, Siena Italy.
- Ilde, D., (1979) *Technics and Praxis, A Philosophy of Technology*. D. Reidel Publishing Company. Boston.
- Illich, Ivan et al., (1977) *Disabling Professions*. London: Marion Boyars.
- ILO (2017) *XXI World Congress on Safety and Health at Work 2017* (<https://www.safety2017singapore.com/> Accessed 22 September 2017)
- INSHPO (2017) *The Occupational Health and Safety Professional Capability Framework, A Global Framework for Practice*. Singapore Accord, Park Ridge, USA.

- Ip, G., (2015) *Foolproof. Why Safety Can be Dangerous and How Danger Makes Us Safe*. Headline. London.
- Jung, C. G., (1958) *Answer to Job*. Bollingen Press. Princeton.
- Jung, C.G. (1959) *Mandala Symbolism*. Bollingen, Princeton.
- Jung, C. G., (1960) *Syncronicity*. Princeton University Press, New York.
- Jung, C. G., (1964) *Man and His Symbols*. Dell, New York.
- Jung, C. G., (1968) *Psychology and Alchemy*. Bolligen, Princeton.
- Jung, C. G., (1968) *The Archetypes and The Collective Unconscious*. Bolligen, Princeton.
- Kahneman, D., (2011) *Thinking Fast and Slow*. Farrar, Straus and Giroux, New York.
- Kierkegaard, S., *The Concept of Anxiety. A Simple Psychologically Oriented Deliberation in View of the Dogmatic Problem of Hereditary Sin*. Translated and Edited Hannay, A., (2014) Norton and Co. New York.
- Klein, G., (1999) *Sources of Power, How People Make Decisions*. MIT Press. Cambridge Massachusetts.
- Kristeva, J., (1980) *Desire in Language, A Semiotic Approach to Literature and Art*. Blackwell. London.
- Laksmidewi, D., Susianto, H and Afiff, A., (2017) *Anthropomorphism in Adverstising: The Effect of Anthropomorphic Product Demonstration on Consumer Purchase Intention*. Asian Academy of Management Journal. Vol. 22. 1.
- Lehner, M., (1997) *The Complete Pyramids*. Thames and Husdon. London.
- Lehrer, J., (2009) *How We Decide*. Houghton Mifflin Harcourt. Boston.
- Letiche, H., Lissack, M., and Schultz, R., (eds.) (2011) *Coherence in the Midst of Complexity, Advances in Complexity Theory*. Palgrave. New York.
- Long, R., (2012) *Risk Makes Sense, Human Judgement and Risk*. Scotoma Press, Canberra.
- Long, R., (2013) *For the Love of Zero, Human Fallibility and Risk*. Scotoma Press, Canberra.
- Long, R., (2013) *Real Risk, Human Discerning and Risk*. Scotoma Press, Canberra.
- Long, R., (2014) *Following-Leading in Risk, A Humanising Dynamic*. Scotoma Press, Canberra.
- Long, R., Smith, G., and Ashhurst, C., (2016) *Risky Conversations, The Law, Social Psychology and Risk*. Scotoma Press. Canberra.
- Long, R., and Fitzgerald, R., (2017) *Tackling Risk, A Field Guide to Risk and Learning*. Scotoma Press, Canberra.
- Lotman, Y., (2000) *Universe of the Mind, A Semiotic Theory of Culture*. Indiana University Press. Bloomington.
- Lotman, J., (2013) *The Unpredictable Workings of Culture*. TLU Press. Tallin.
- Lyden, J., (2003) *Film as Religion. Myths, Morals and Rituals*. New York University Press. New York.
- MacIntyre, A., (1987) *After Virtue, a Study in Moral Theory*. Duckworth. London.

- Madsbjerg, C., (2017) *Sensemaking, What Makes Human Intelligence Essential in the Age of the Algorithm*. Little Brown. London.
- Mahn, J., (2011) *Fortunate Fallibility, Kierkegaard and the Power of Sin*. Oxford University Press. London.
- Martin, J., Sugarman, J., and Hickinbottom, S., (eds.), (2010) *Persons, Understanding Psychological Selfhood and Agency*. Springer. Bumaby Canada.
- Mate, G., (2010) *In the Realm of Hungry Ghosts*. North Atlantic Books. Berkley California.
- McLuhan, M., (1964) *Understanding Media: The Extensions of Man*. Routledge. London.
- Michael, D., (1997) *Learning to Plan and Planning to Learn*. Miles River Press. New York.
- Minzberg, H., Ahlstrand, B., and Lampel, J., (1998) *Strategy Safari. The Complete Guide Through The Wilds of Strategic Management*. Prentice-Hall. London.
- Mizzoni, J., (2010) *Ethics, The Basics*. Wiley-Blackwell. West Sussex.
- Moltmann, J., (1969) *Theology of Hope*. SCM Press. London.
- Mooney, E., (2009) Introduction: *Repetition and Philosophical Crumbs*. Oxford World Classics. Oxford University Press, London.
- Muller, J., and Brent, J., (eds.) (2000) *Pierce, Semiotics and Psychoanalysis*. John Hopkins University Press. Baltimore.
- Myhre, P., (ed.) (2009) *Introduction to Religious Studies*. Anselm Academic. Winona.
- Neville, B., (1989) *Educating Psyche, Emotion, Imagination and the Unconscious in Learning*. Collins Dove, Melbourne.
- Nicolescu. B., (ed.) (2008) *Transdisciplinarity - Theory and Practice*. Hampton Press, Cresskill, NJ.
- Nicolescu. B., (2015) *From Modernity to Cosmodernity: Science Culture and Spirituality*. State University of New York Press. New York.
- Nitzsche, F., (2007) *Twilight of The Idols, With The Antichrist and Ecco Homo*. Wordsworth Classics. London.
- Norretranders, T., (1991) *The User Illusion, Cutting Consciousness Down to Size*. Penguin, New York.
- Noth, W., (1995) *Handbook of Semiotics*. Indiana University Press, Bloomington.
- Ostwalt, C., (2012) *Secular Steeples, Popular Culture and the Religious Imagination*. Bloomsbury. London.
- Packard, V., (2007) *The Hidden Persuaders*. IG Publishing. New York.
- Paley, C., (2014) *Unthink*. Coronet. London.
- Peterson, D., (1996) *Human-Error Reduction and Safety Management*. Van Nostrand Reinhold. New York.
- Polanyi, M., (1966) *The Tacit Dimension*. University of Chicago Press. New York.
- Postema, G., (1980) *Moral Responsibilities in Professional Ethics*. New York University Law Review. Vol. 55-63.
- Postman, N., (1976) *Crazy Talk, Stupid Talk, How We Defeat Ourselves By The Way We talk - And What To Do About it*. A Delta Book, New York.

- Postman, N., (1993) *Technopoly, The Surrender of Culture to Technology*. Vintage Books, New York.
- Postman, N., (1996) *The End of Education, Redefining the Value of School*. Vintage Books, New York.
- Radley, A., (1991) *The Body and Social Psychology*. Springer. New York.
- Radley, A., (1994) *Making Sense of Illness, The Social Psychology of Health and Disease*. Sage, London.
- Raynor, M., (2007) *The Strategy Paradox. Why Committing to Success Leads to Failure (and What to Do About It)*. Doubleday. New York.
- Reason, J. (1990) *Human Error*. Cambridge University Press.
- Reasin, J., (1997) *Managing the Risks of Organizational Accidents*. Ashgate. London.
- Redhead, S., (ed.) (2008) *The Jean Baudrillard Reader*. Columbia University Press. New York.
- Ricoeur, P., (1967) *The Symbolism of Evil*. Harper and Row. New York.
- Ricoeur, P., (1974) *The Conflict of Interpretations, Essays in Hermeneutics*. Northwest University Press. Illinois.
- Ricoeur, P., (1975) *The Rule of Metaphor*. Routledge. New York.
- Ricoeur, P., (1986) *Fallible Man*. Fordham University Press. New York.
- Rittel, H. and Webber, M., (1973) *Dilemmas in a General Theory of Planning, Policies Studies 4*. Elsevier. Amsterdam.
- Ronnberg, A., (ed.) (2010) *The Book of Symbols, Reflections on Archetypal Images*. Tachen. New York.
- Ryall, E., Russell, W., and MacLean, M., (2013) *The Philosophy of Play*. Routledge, London.
- Sainsbury, R., (2009) *Paradoxes*. Cambridge. London.
- Samuel, R., and Jones, G., (eds.) (1982) *Culture, Ideology and Politics*. History Workshop Series. Routledge. London.
- Sartre, J., (1943) *Being and Nothingness: A Essay on Phenomenological Ontology*. Washington Square Press. New York.
- Sartre, J., (1944) *Anti-Semite and Jew*. Schocken Books. New York.
- Schwartz, B., (2004) *The Paradox of Choice*. Harper. New York.
- Semler, L., Hodge, B., and Kelly, P., (2012) *What is the Human?* Australian Scholarly. North Melbourne.
- Shaev, Y., and Samoylova, E., (2013) The Semiotic of Archetypes and Images in the Folklore of Andes Region. *Science Direct*, 92 pp. 863-867.
- Sorensen, R., (2003) *A Brief History of the Paradox. Philosophy and the Labyrinths of the Mind*. Oxford University Press. London.
- Smith, E., (2012) *Luck, What it Means and Why it Matters*. Bloomsbury. London.
- Sloan, J., (2006) *Learning to Think Strategically*. Elsevier, New York.
- Sternberg, R., (ed.) (1990) *Wisdom, Its Nature, Origins and Development*. Cambridge University Press, London.
- Sunstein, C., (2009) *Going to Extremes, How Like Minds Unite and Divide*. Oxford. London.

- Talbot, J., and Jakeman, M., (2009) *The Security Risk Management Body of Knowledge*. Wiley. New York.
- Taleb, N., (2004) *Fooled by Randomness, The Hidden Role of Chance in Life and in the Markets*. Penguin. London.
- Taleb, N., (2007) *The Black Swan, The Impact of the Highly Improbable*. Random House. New York.
- Taleb, N., (2012) *Antifragile, How to Live in a World we Don't Understand*. Allen lane. London.
- Turkle, S., (2011) *Alone Together, Why We Expect More from Technology and Less From Each Other*. Basic Books. New York.
- Wagner, P., (2010) *Safety – A Wicked Problem, Leading CEOs discuss their views on OHS transformation*. SIA. Melbourne.
- Wallace, B., and Ross, A., (2006) *Beyond Human Error, Taxonomies and Safety Science*. Taylor and Francis. Boca Raton, FL.
- Watt, A., (1989) *The Book on the Taboo Against Knowing Who You Are*. Vintage Books. New York.
- Watts, D., (2011) *Everything is Obvious, How Common Sense Fails Us*. Atlantic Books. London.
- Weick, K., (1979) *The Social Psychology of Organizing*. McGraw Hill. New York.
- Weick, K., (2001) *Making Sense of the Organisation Vol. 1*. Blackwell, London.
- Weick, K., (2001b) *Making Sense of the Organisation Vol. 2*. Blackwell, Oxford.
- Wells, A., (1997) *Cognitive Therapy of Anxiety Disorders, A Practice Manual and Conceptual Guide*. Wiley, New York.
- Wetherell, M., and Potter, J., (1998) *Discourse and Social Psychology – Silencing Binaries*. Theory and Psychology. Sage Publications. New York.
- Wirzba, N., (2011) *Food and Faith, A Theology of Eating*. Cambridge. London.
- Wodak, R., and Meyer, M., (2013) *Methods of Critical Discourse Analysis*. Sage. Los Angeles.
- Yelle, R., (2013) *Semiotics of Religion, Signs of the Sacred in History*. Bloomsbury, London.
- Zantides, E., (2014) *Semiotics and Visual Communication: Concepts and Practices*. Cambridge. London.

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Rob has lectured at various universities since 1990 including University of Canberra, Charles Sturt University and ACU. He has also held distinguished positions outside of academic life including Manager Evacuation Centre during the Canberra Bushfires in 2003, Emergency Coordination Operations Group Beaconsfield 2006, Community Recovery Beaconsfield 2006 and Risk Management Coordinator World Youth Day (Canberra Goulburn) 2008.

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Rob founded the social psychological perspective in risk, safety and security in 2003 and 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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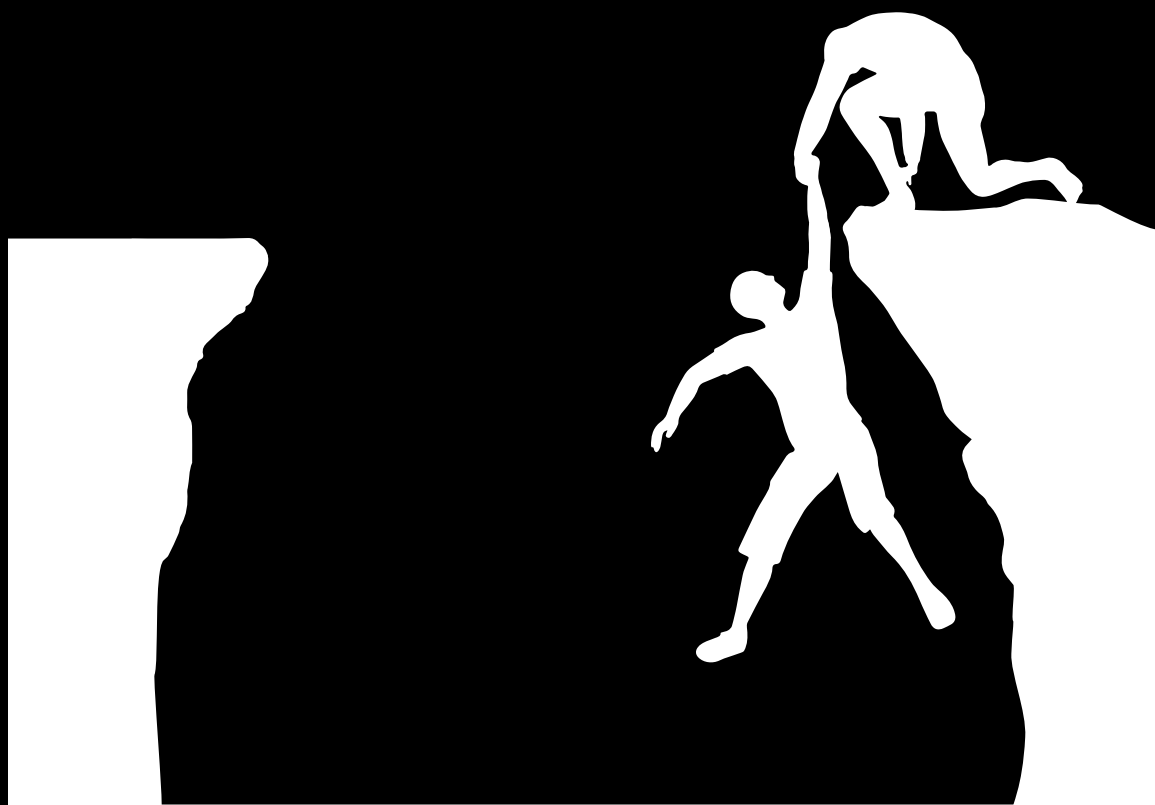
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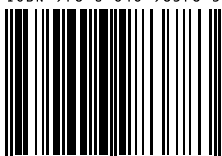
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