

Risk Management in a Hypermobile World

Omega Seminar Series
Bartlett School of Planning, UCL
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December 2007: working paper for Omega Project

- The world's biggest mega transport project subsumes all the others. It is the promotion of mobility.
- All significant participants in the project are now globe spanning enterprises.
- The motor industry measures success by numbers of vehicles sold. Judged by this criterion, despite global over-capacity, it is prospering
- Growing still faster is the aviation industry, generating mega projects for plane and airport builders
- Railways, after decades in the doldrums, are being revitalized by mega high-speed projects
- The result is an emergent *hypermobile society*.

Oops!

“Hypermobility breeds fatalism. Without egalitarian restraint of present trends, dystopian science fiction appears likely to provide our best guide to the future.”

The social consequences of hypermobility

(the pollution-free perpetual-motion engine
& electronic mobility too cheap to meter)

- more dispersed (more suburban sprawl)
- more polarised (greater disparity between rich and poor)
- more anonymous and less convivial (fewer people will know their neighbours)
- less child-friendly (children's freedoms will be further curtailed by parental fears)
- less culturally distinctive (the *McCulture* will be further advanced)
- more dangerous for those not in cars (more metal in motion)
- fatter and less fit (less exercise built into daily routines)
- more crime ridden (less social cohesion and more fear of crime)
- subject to a more Orwellian style of policing (more CCTV surveillance)
- less trusting (the rise of the audit/risk-assessment culture)
- less democratic (the majority will have less influence over the decisions that govern their lives)

omega centre

Centre for Mega Projects in Transport and Development

A global Centre of Excellence in Future Urban Transport
sponsored by Volvo Research and Educational Foundations (VREF)



HSL- Zuid
Brussels to Amsterdam
Highspeed TGV railway



Jubilee Line Extension
London Underground
Urban Metro link



2009



City Link,
Melbourne
Highway extension



Millau Viaduct
A75, Midi-Pyrénées
Highway bypass



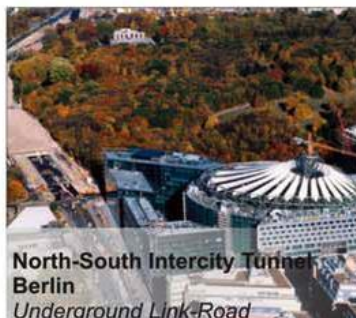
OMEGA



Shuto Expressway
Greater Tokyo Area
Metropolitan Expressway



Big Dig
Boston, Massachusetts
Highway tunnel



North-South Intercity Tunnel
Berlin
Underground Link-Road



Monorail
Chiba
Urban Metro link



Rion-Antirion Bridge
Bridge over the Gulf of Corinth



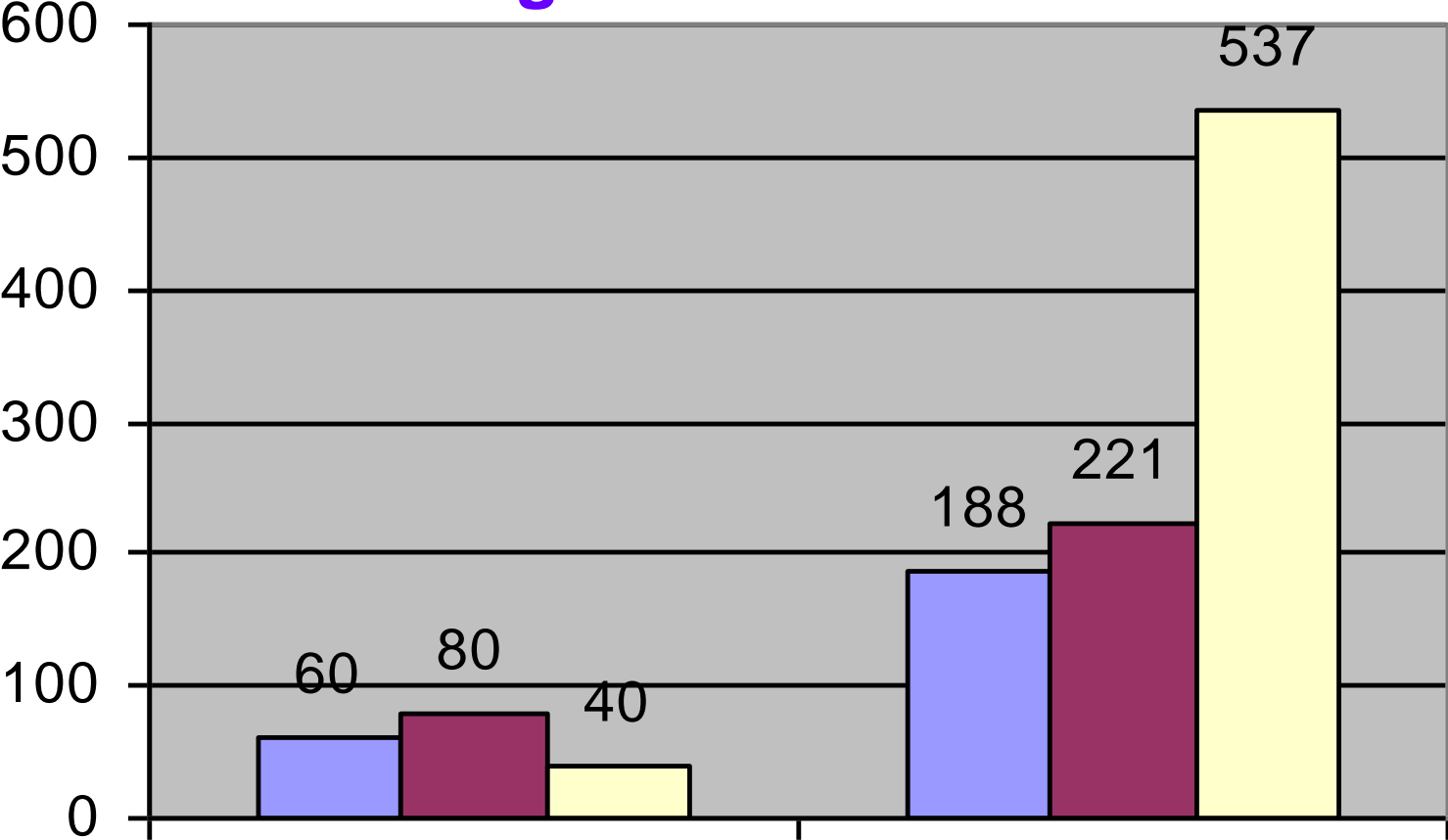
SEMINAR

The social consequences of hypermobility

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& electronic mobility too cheap to meter)

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Google Hits - millions



May 2004

Sept 2005

- God
- Sex
- Risk



CAUTION
THIS DOOR
IS HEAVY





TAKE!
CARE.

"To avoid suffocation keep away from children"



If you see fire or smoke

- 1. Operate the fire alarm. No sound will be heard but the Fire Brigade will be called.**
- 2. Tell any staff member the location of fire or smoke.**
- 3. Follow instructions from staff or emergency services.**

Do not take any risks

CAUTION

These plants are covered
in sharp spikes that may
puncture the skin if touched
DO NOT HANDLE

The image shows three spherical cholla cacti in white rectangular pots, arranged in a row. Each cactus is covered in dense, sharp, yellowish-brown spines. Two white warning signs are placed in the pots. The signs have a red border and contain the following text: 'CAUTION' in red, 'These plants are covered in sharp spikes that may puncture the skin if touched.' in black, and 'DO NOT HANDLE' in red. The background is a plain, light-colored wall.

CAUTION
These plants are covered
in sharp spikes that may
puncture the skin if touched.
DO NOT HANDLE

CAUTION
These plants are covered
in sharp spikes that may
puncture the skin if touched.
DO NOT HANDLE

Entrance to the Health and Safety Laboratory, Buxton





**Keep back from
the platform edge**
or you may get sucked off

Penrith



7 MILLION
LONDONERS



If you see



or hear anything suspicious



tell our staff or
the police immediately

**Trust your
senses**

MAYOR OF LONDON



Transport for London



**7 MILLION
LONDONERS**



If you see



or hear anything
suspicious



tell our staff or the
police immediately

Trust your senses

MAYOR
OF LONDON

METROPOLITAN
POLICE
Working together for a safer London



BRITISH
TRANSPORT
POLICE

Transport
for London



BIG BROTHER



**IS WATCHING
YOU**

Drake
Gilbert
Saxton
Davis
Hakluyt
Wright
Hudson
Baffin
Halley
Dampier
Bruce
Cook
Ramsden
Roy
Mackenzie
Rennell
Vancouver
Park

Clapperton
Barrow
Lander
Parry
Colby
Back
Ross
Biscoe
Franklin
Stuart
Eyre
Galton
Everest
Hooker
Bates
Burton
Speke
Murchison

Livingstone
Baker
Kirk
Godwin -
Austen
Clarke
Markham
Yule
Stanley
Doughty
Thomson
Murray
Curzon
Scott
Shackleton
Keltie
Gertrude Bell
Hogarth

Drake

Gilbert

Saxton

Davis

Hakluyt

Wright

Hudson**Baffin**

Halley

Dampier

Bruce

Cook

Ramsden

Roy

Mackenzie

Rennell

Vancouver

Park**Clapperton**

Barrow

Lander

Parry

Colby

Back

Ross

Biscoe**Franklin**

Stuart

Eyre

Galton

Everest

Hooker

Bates

Burton

Speke

Murchison

Livingstone

Baker

Kirk

Godwin -

Austen

Clarke

Markham

Yule

Stanley

Doughty

Thomson

Murray

Curzon

Scott**Shackleton**

Keltie

Gertrude Bell

Hogarth



The death of Captain Cook, on the 14th of February 1779, near the Bay of Keolu, in the Kingdom of Hawaii, in the Sandwich Islands.

The death of Captain Cook

Risk assessment of all activities is required by law.

Department of
Geography

Safety Pages

> Introduction to Risk
Assessment For Field Work

Please read this section first, then go to the [Main Hazard Index](#)

Risk Assessment

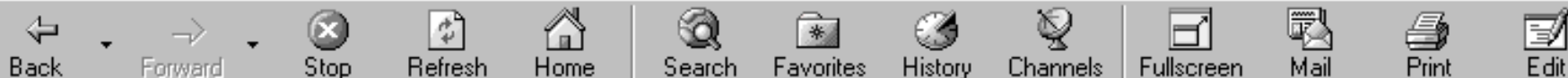
A risk assessment is simply a careful examination of anything that may cause harm to you or others during the course of your work. Once this is done, you will then be able to decide upon the most appropriate action to take to minimize the likelihood of anyone being hurt. The aim is to prevent accident and illness. It is carried out by identifying risk and using appropriate **control measures** to minimize or eliminate the risk. **Risk Assessment of all activities is required by Law.**

Hazard

A **hazard** is anything that may cause harm. Although they may not cause harm in one form, there is always a "what if...?". Glass bottles can be considered a hazard. Normally they are fairly harmless - what if they are dropped? Electricity is a hazard. Whilst properly contained it is safe, what if...? To make life a little easier, we have divided the hazards into groups. These are then subdivided. Not all the areas will be relevant to your work, but do not dismiss them without looking - You may find a risk that you hadn't thought of!

Risk

You may find a risk that you hadn't thought of!



Address http://www.geog.ucl.ac.uk/safety/risk/haz_ind.htm

Guide to Hazard Categories

- [Environment](#)
- [Manual Handling](#)
- [Chemical/Biological](#)
- [Working on or near Water](#)
- [Lone/Out of hours working](#)
- [Health](#)
- [Equipment](#)
- [Dealing with the Public](#)

Return to [Introduction to Risk Assessment](#)

http://www.geog.ucl.ac.uk/safety/risk/hea_haz.htm

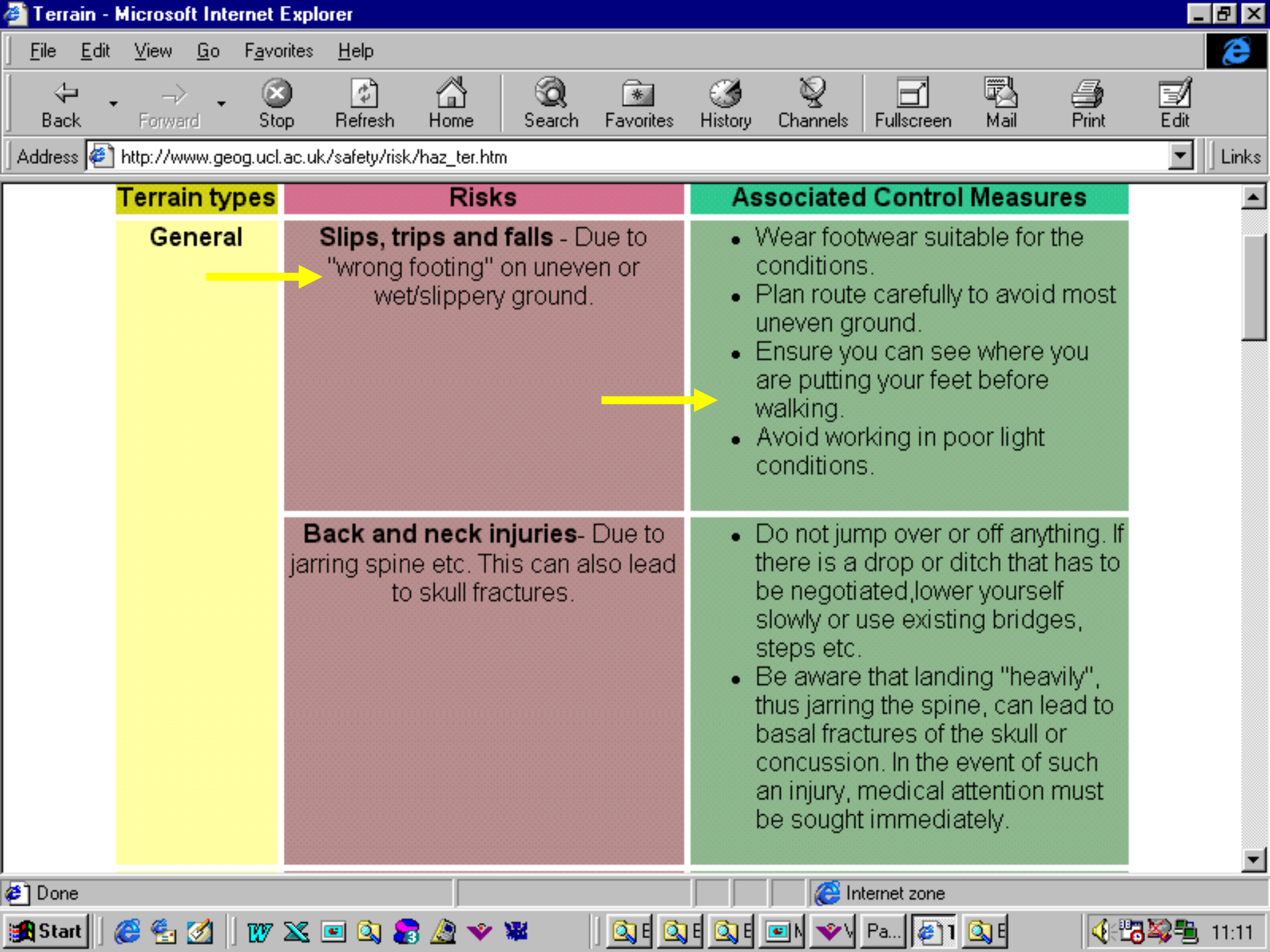
Internet zone



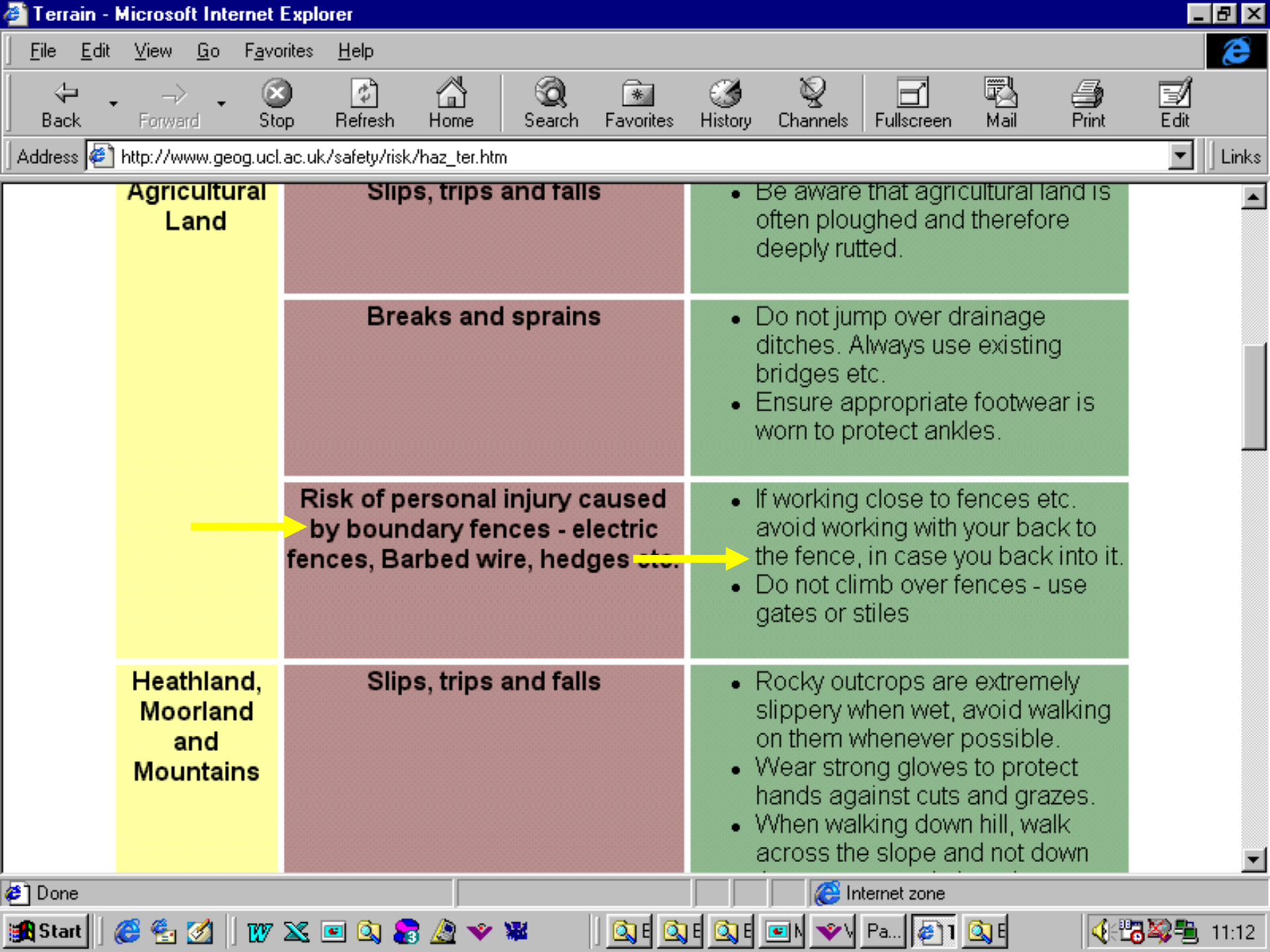
Risk Assessment > Environment

- [Weather](#)
- [Terrain](#)
- [Location](#)
- [District](#)
- [Animals](#)
- [Pollution](#)

Return to [main hazard index](#)



Terrain types	Risks	Associated Control Measures
General	Slips, trips and falls - Due to "wrong footing" on uneven or wet/slippery ground. Back and neck injuries- Due to jarring spine etc. This can also lead to skull fractures.	<ul style="list-style-type: none">• Wear footwear suitable for the conditions.• Plan route carefully to avoid most uneven ground.• Ensure you can see where you are putting your feet before walking.• Avoid working in poor light conditions. <ul style="list-style-type: none">• Do not jump over or off anything. If there is a drop or ditch that has to be negotiated, lower yourself slowly or use existing bridges, steps etc.• Be aware that landing "heavily", thus jarring the spine, can lead to basal fractures of the skull or concussion. In the event of such an injury, medical attention must be sought immediately.



Agricultural Land

Heathland, Moorland and Mountains

Slips, trips and falls

Breaks and sprains

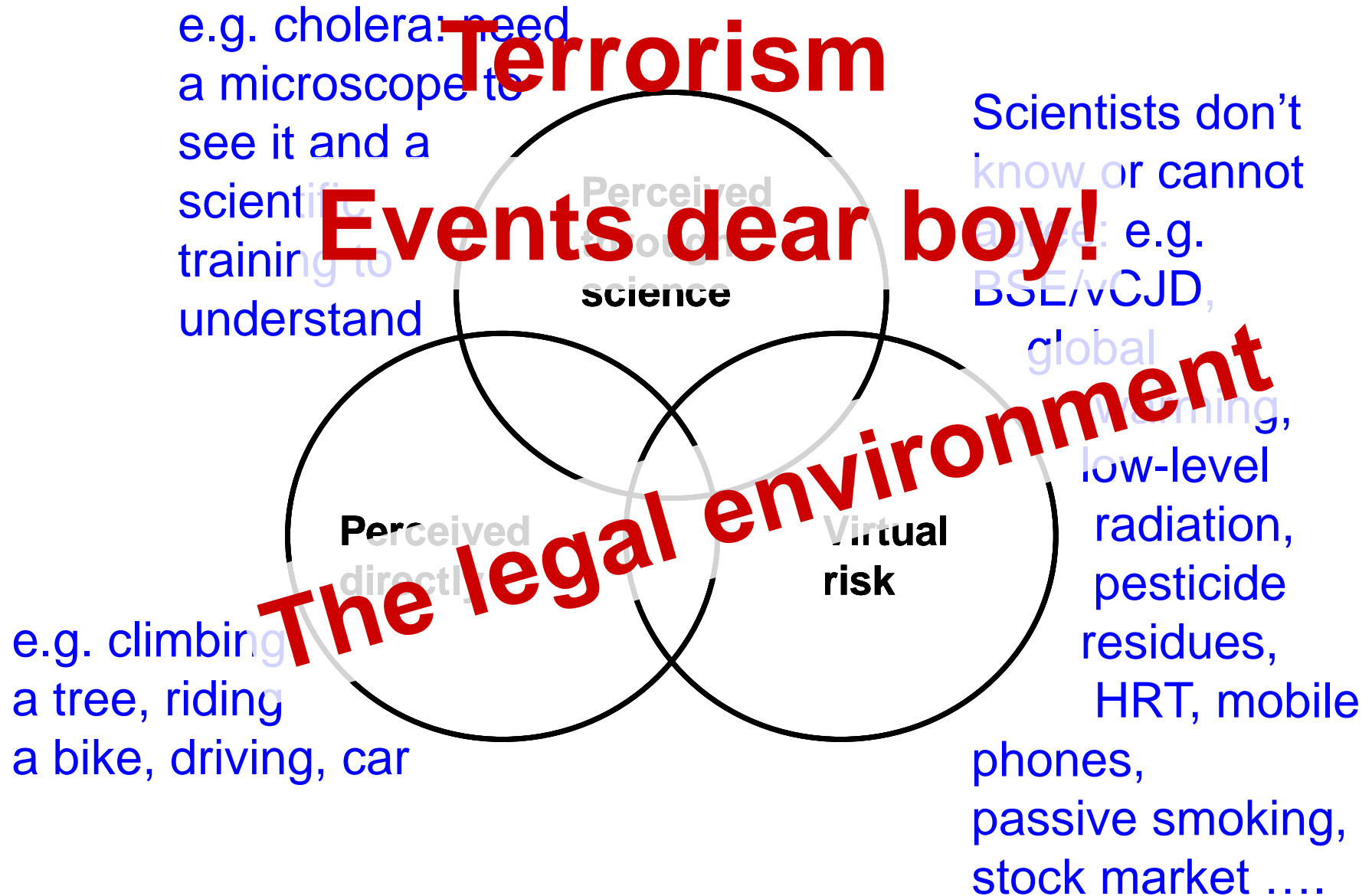
Risk of personal injury caused by boundary fences - electric fences, Barbed wire, hedges etc.

Slips, trips and falls

- Be aware that agricultural land is often ploughed and therefore deeply rutted.
- Do not jump over drainage ditches. Always use existing bridges etc.
- Ensure appropriate footwear is worn to protect ankles.
- If working close to fences etc. avoid working with your back to the fence, in case you back into it.
- Do not climb over fences - use gates or stiles

- Rocky outcrops are extremely slippery when wet, avoid walking on them whenever possible.
- Wear strong gloves to protect hands against cuts and grazes.
- When walking down hill, walk across the slope and not down

Different kinds of Risk





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The New Yorker March 21, 1988

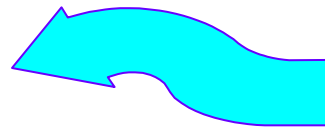
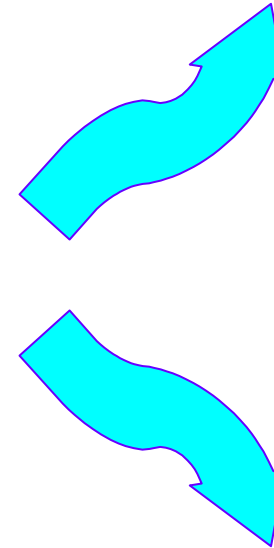
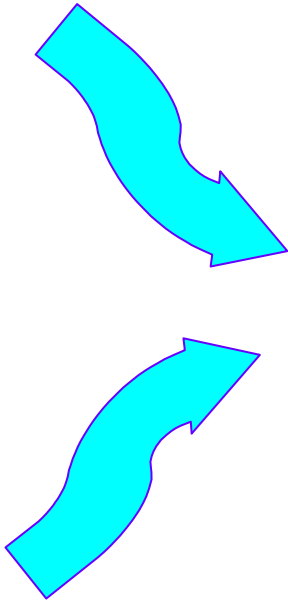
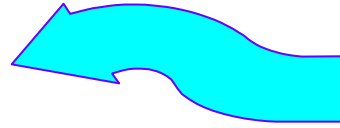
**Propensity to
take risks**

Rewards

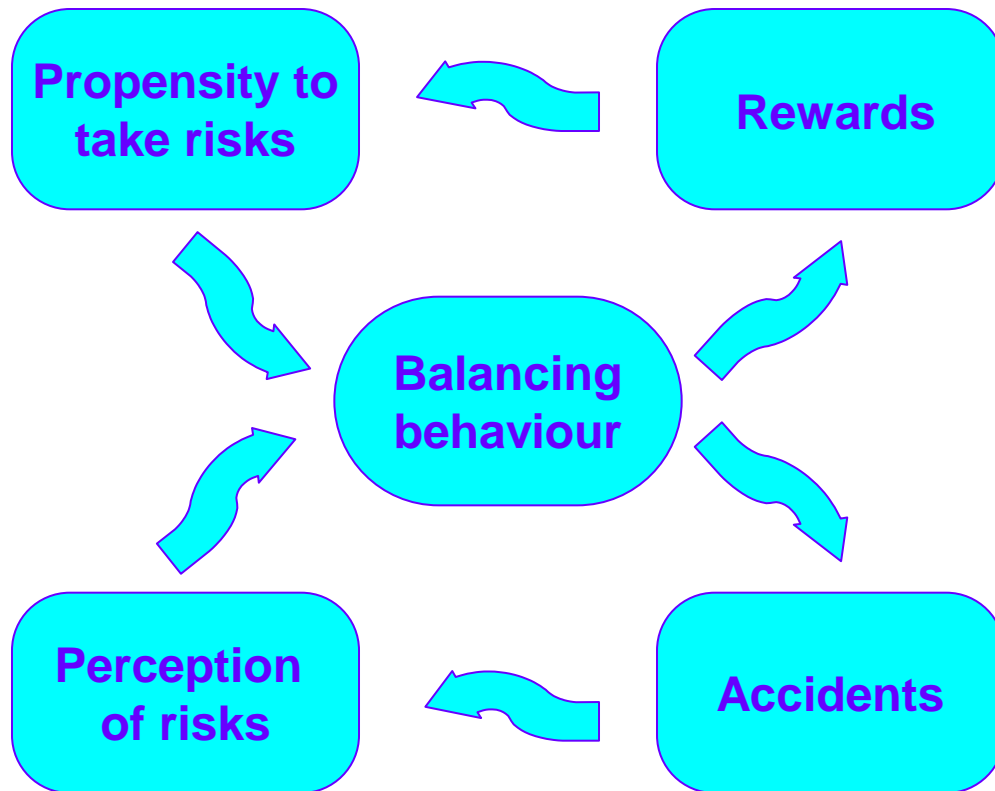
**Balancing
behaviour**

**Perception
of risks**

Accidents

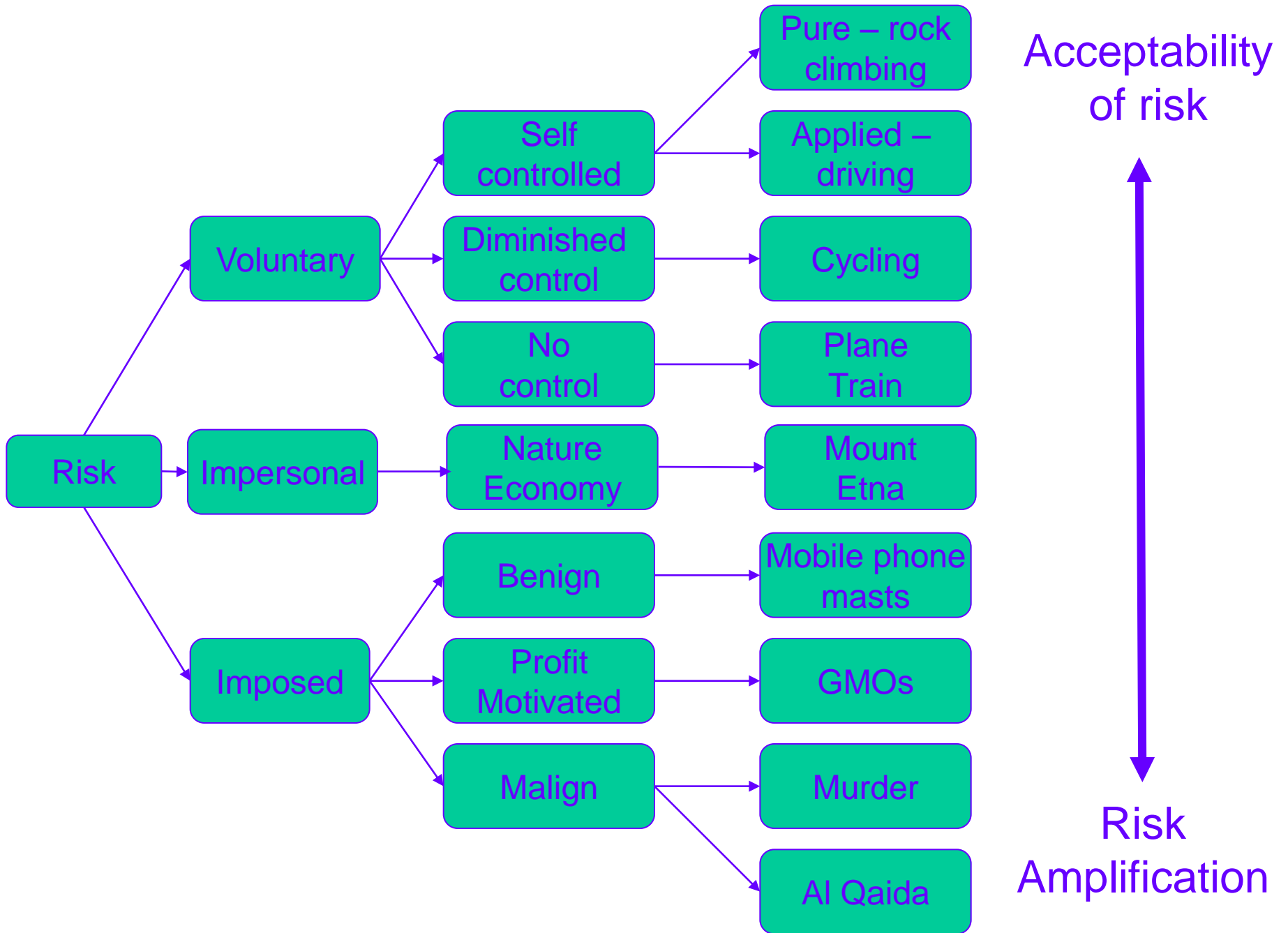


The risk thermostat



Money, power,
love, glory, food,
sex, rushes of
adrenaline,
control ...

Money, health,
life, status,
self-esteem,
embarrassment,
jail, **loss of control ...**



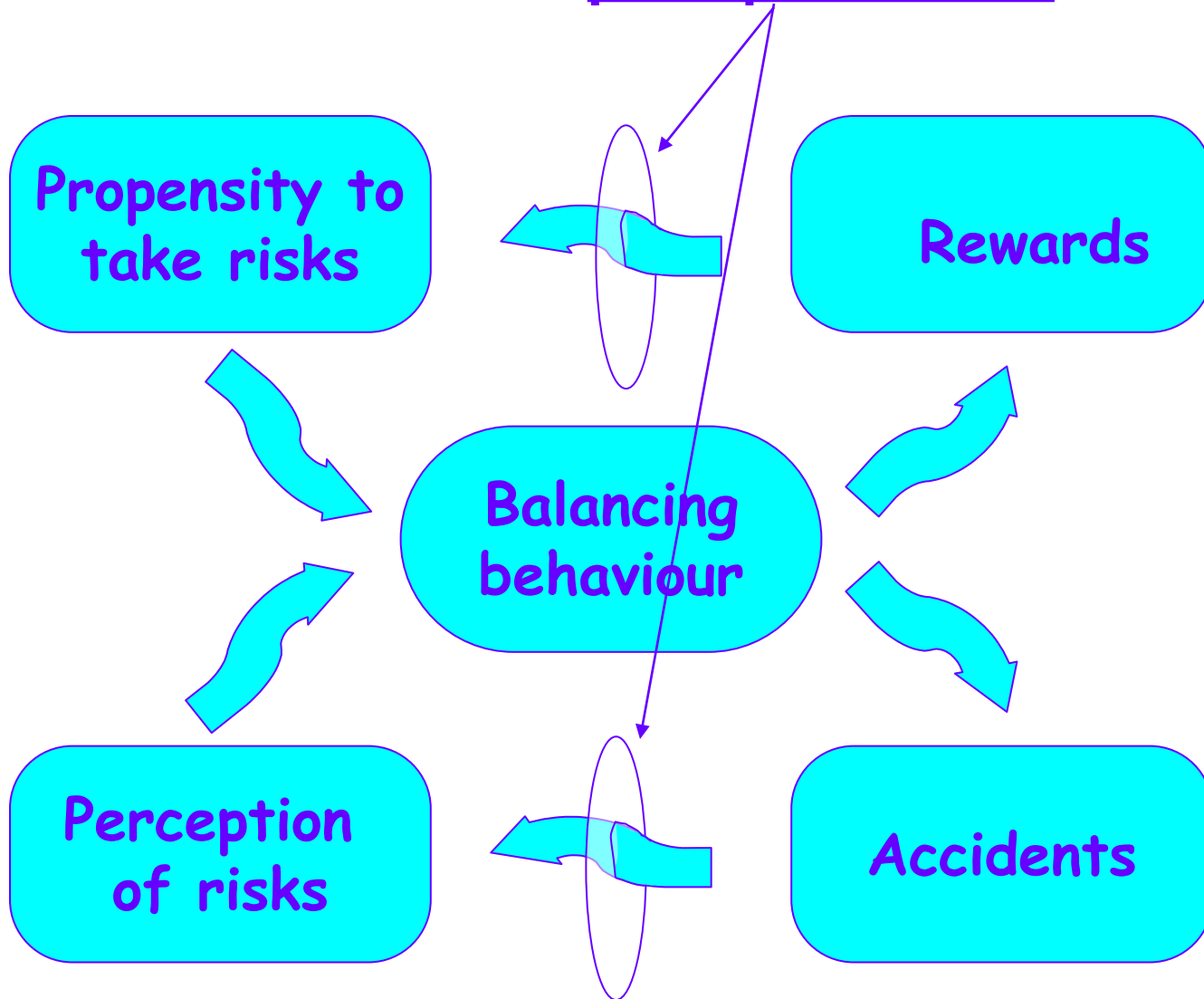
Bottom loop bias



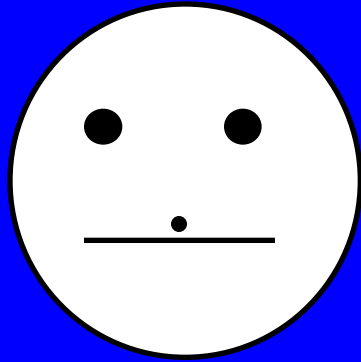
Top loop bias



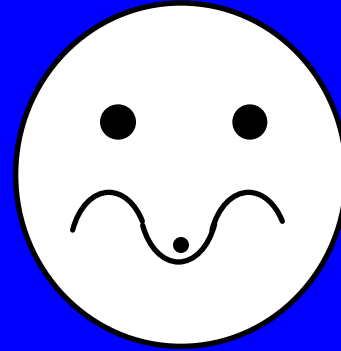
Risk thermostat with perceptual filters



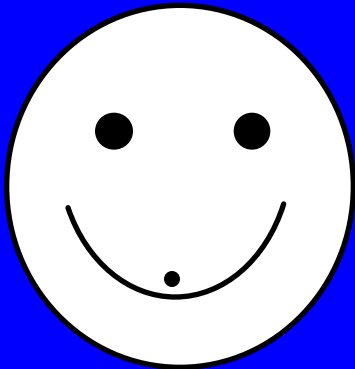
A typology of bias



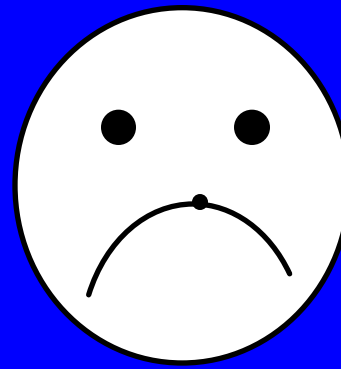
Fatalist



Hierarchist



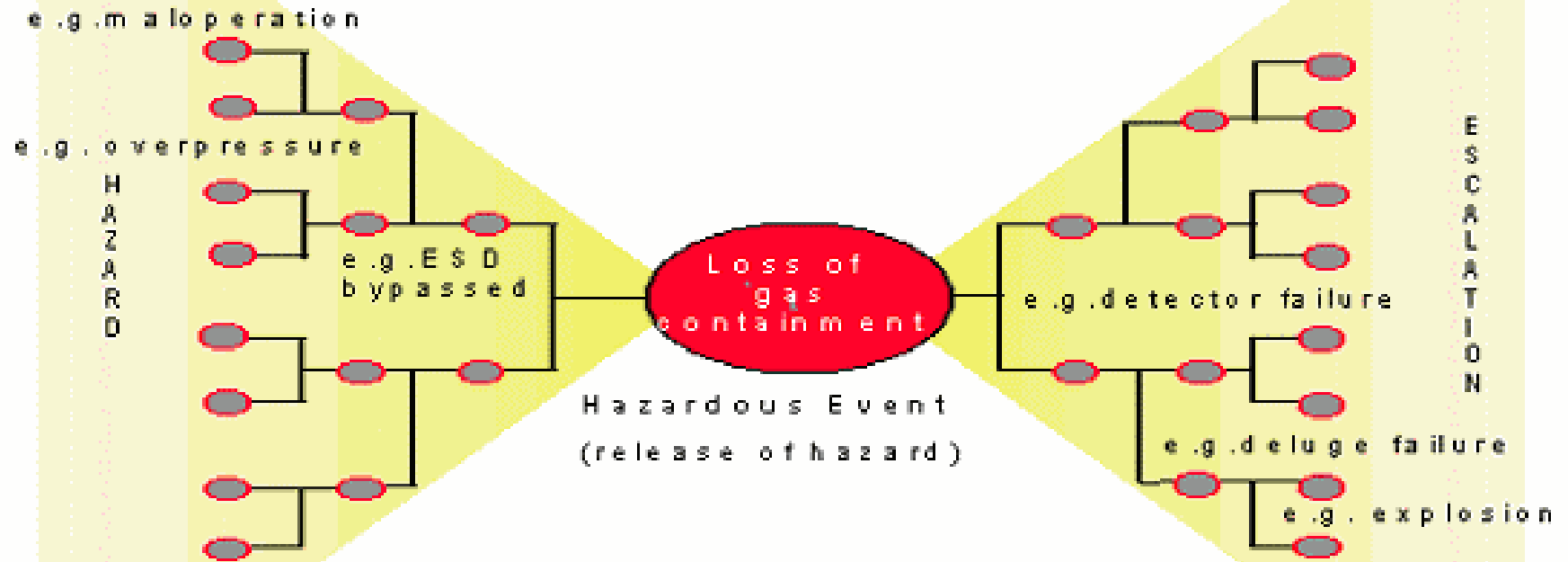
Individualist



Egalitarian

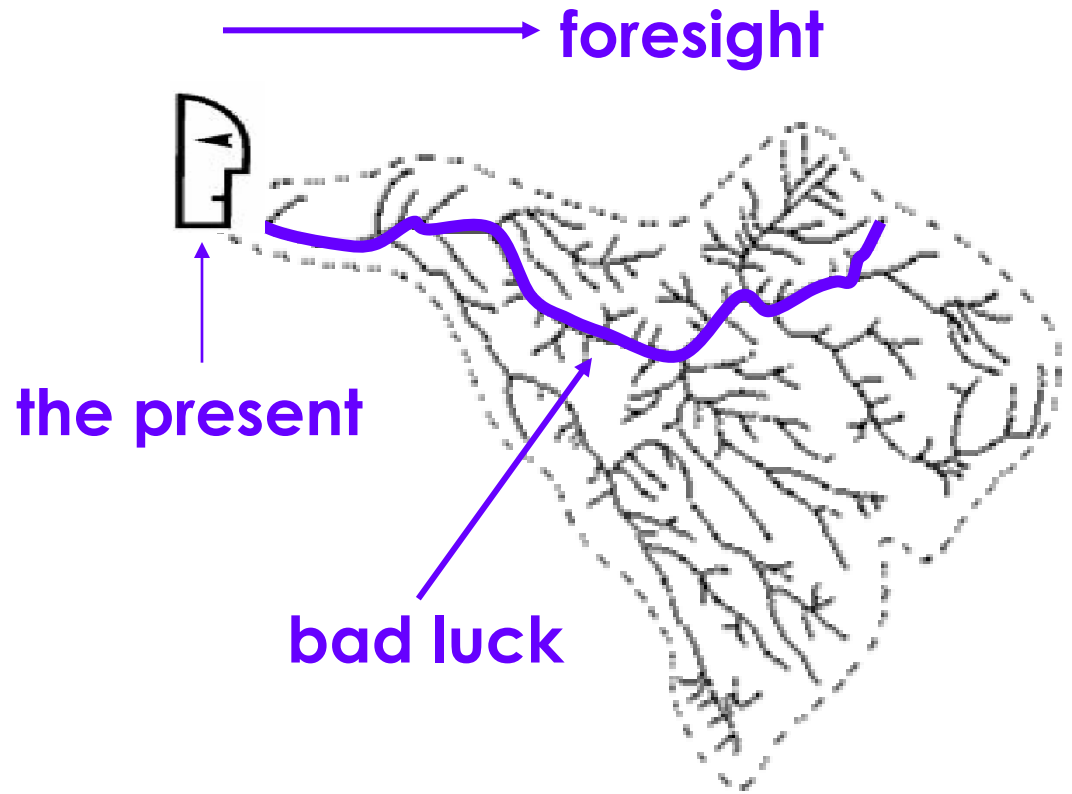
FAULT TREE (Causes)

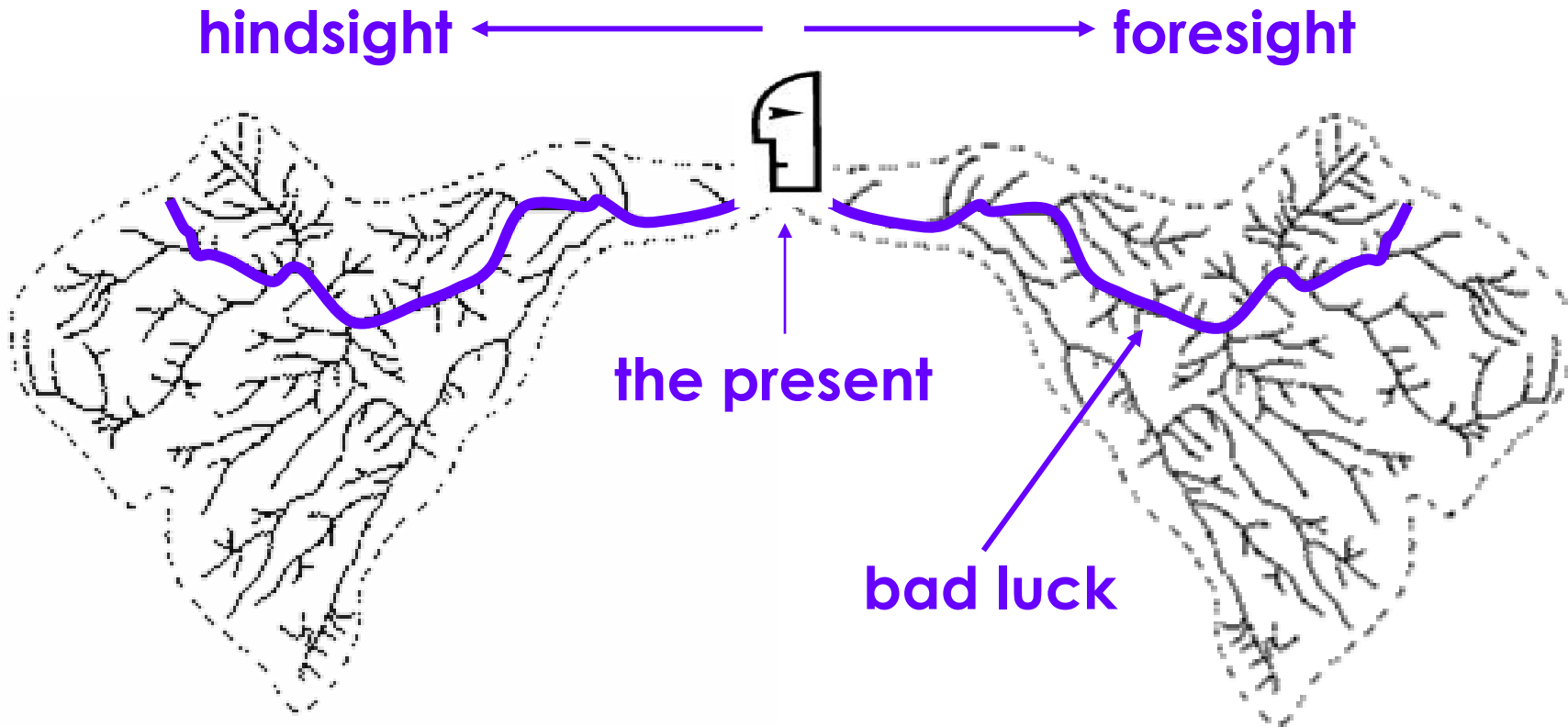
EVENT TREE (Consequences)

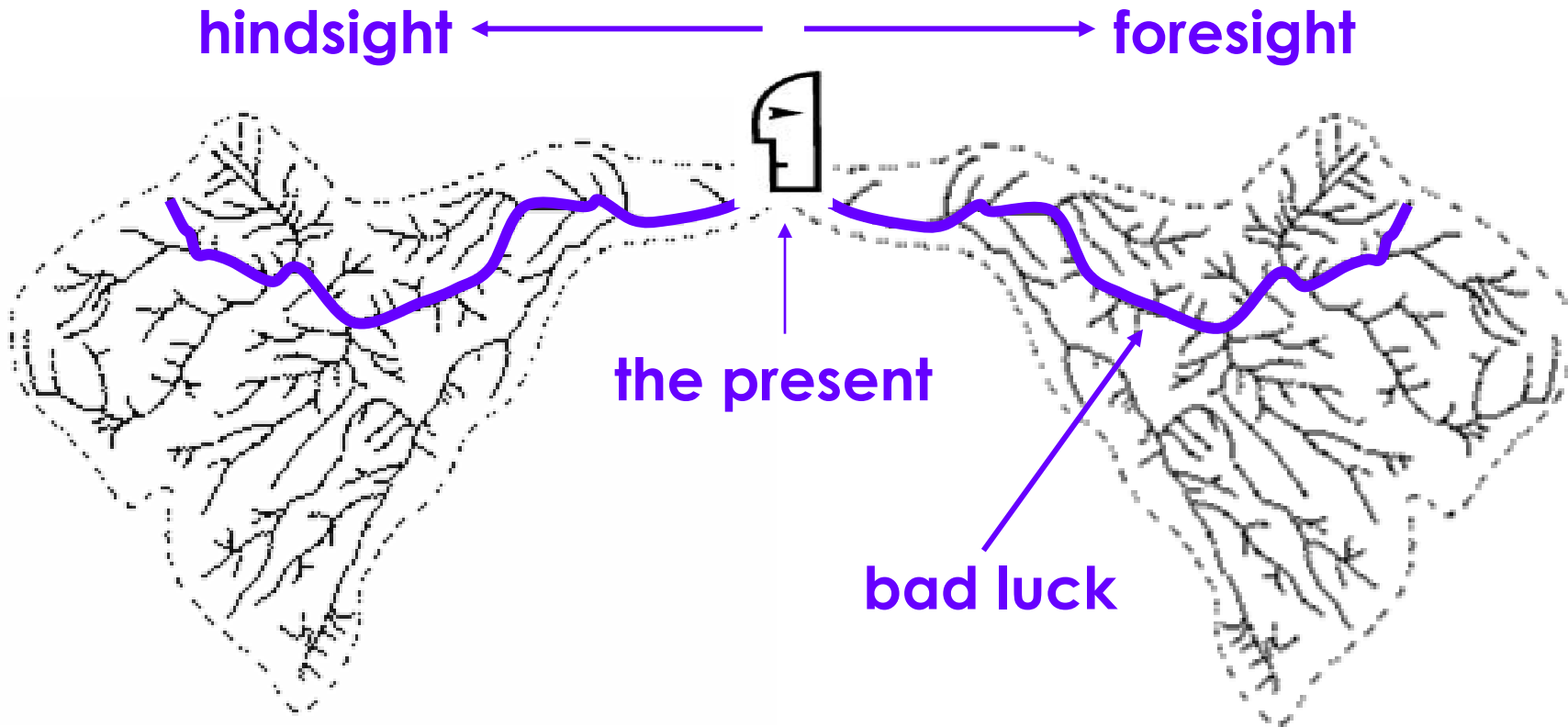


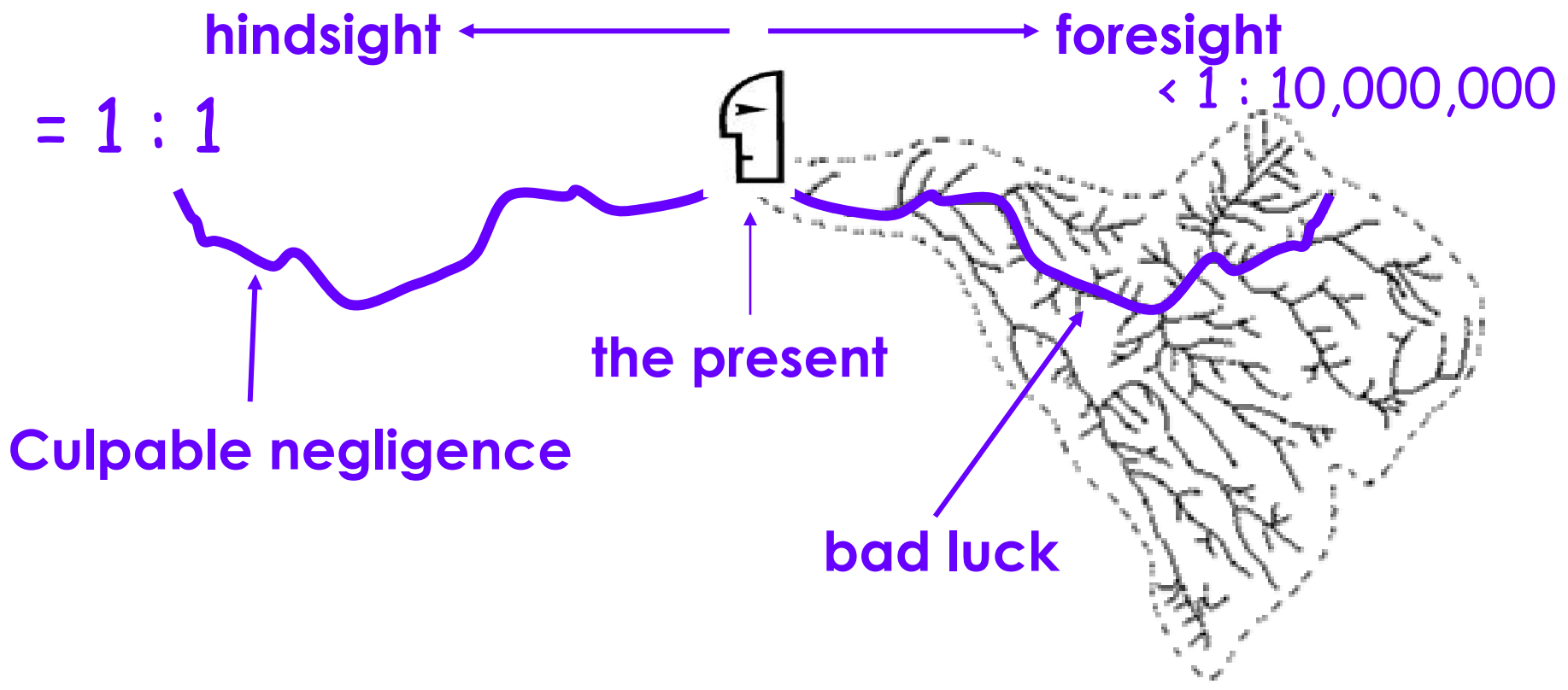
sequence of faults and causes leading to a hazardous event

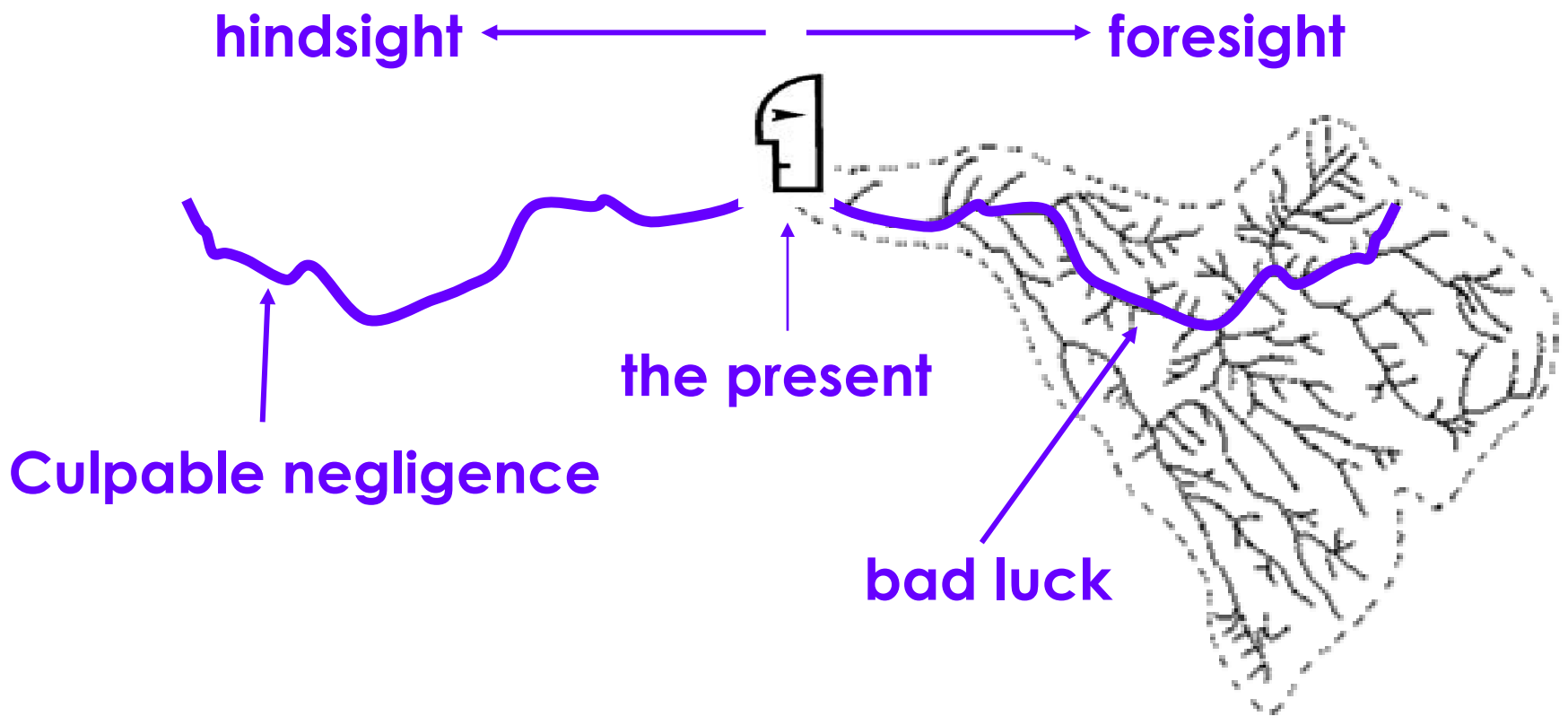
sequence of events and failures leading to the escalation of a hazardous event



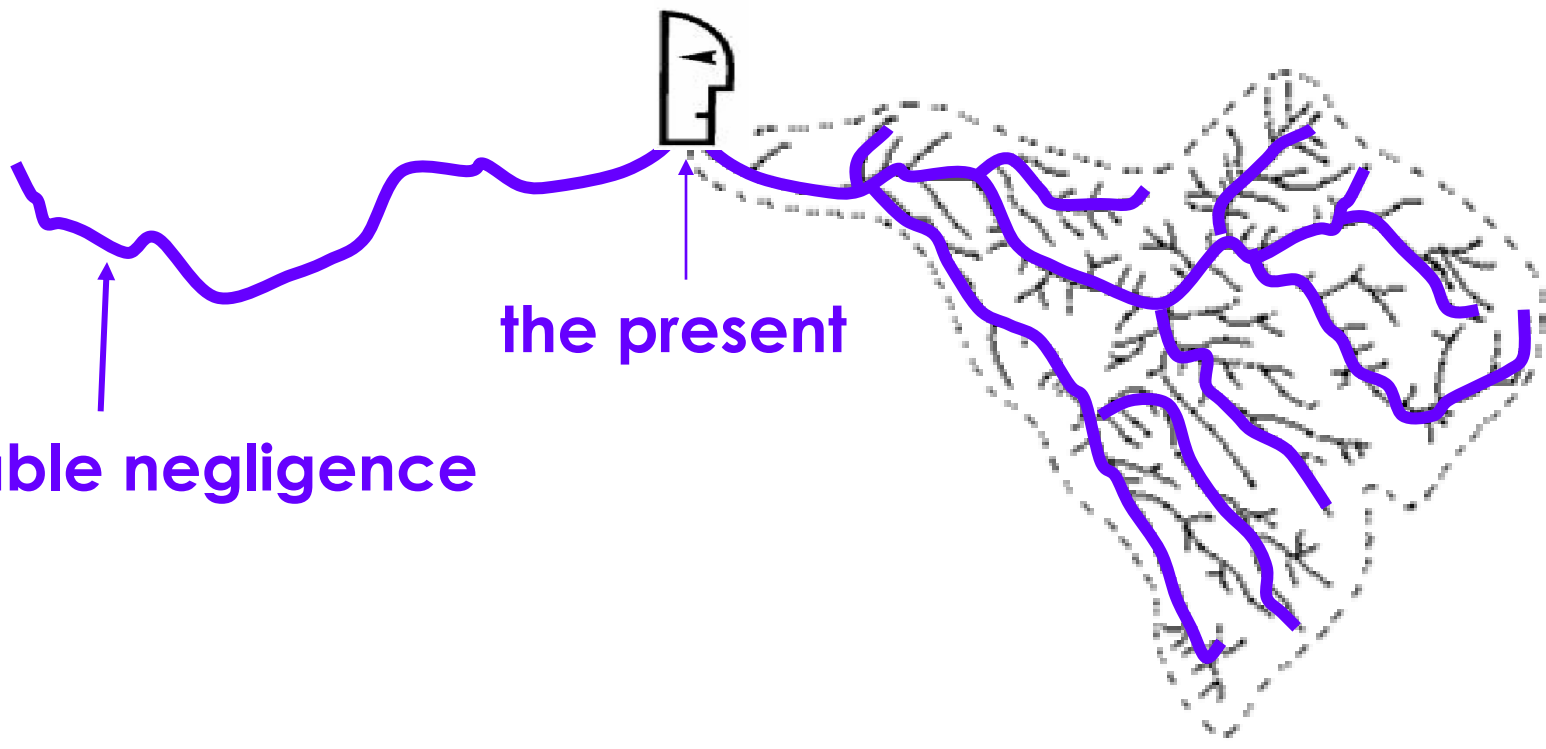








hindsight ← ————— → **risk assessment**



the present

Culpable negligence

No children

No swings



Rubberized matting



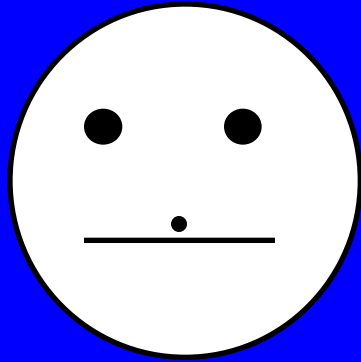
barriers



“The swings are packed away at night because kids might climb the fence and use them unsupervised and hurt themselves.”







Fatalist

The legislators
Purveyors of "guidance"
Enforcers
Compliance managers

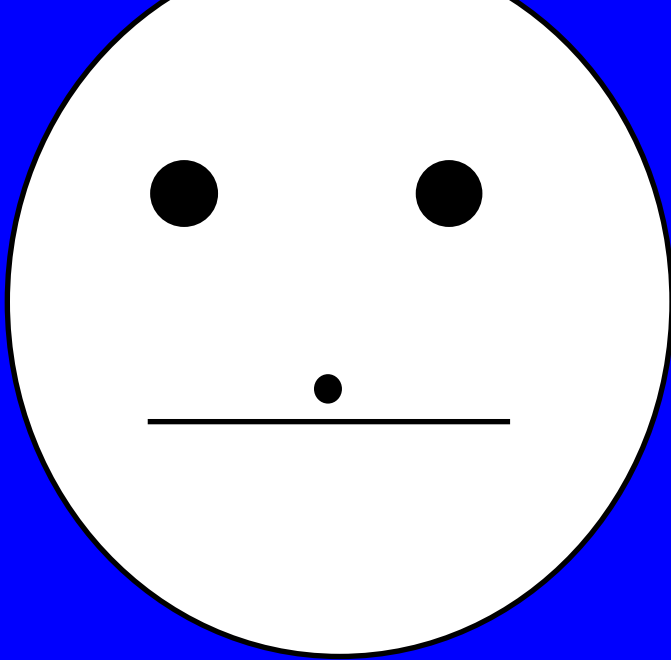
Hierarchist



Individualist



Egalitarian



Fatalist

The legislators
Purveyors of "guidance"
Enforcers
Compliance managers

Hierarchist



Individualist



Egalitarian





<http://www.edwardburtynsky.com/WORKS/Ships/Shipbreaking>

There must be no blood



BG LNG Plant, Idku, Egypt



Lunch Atop a Skyscraper, 1932

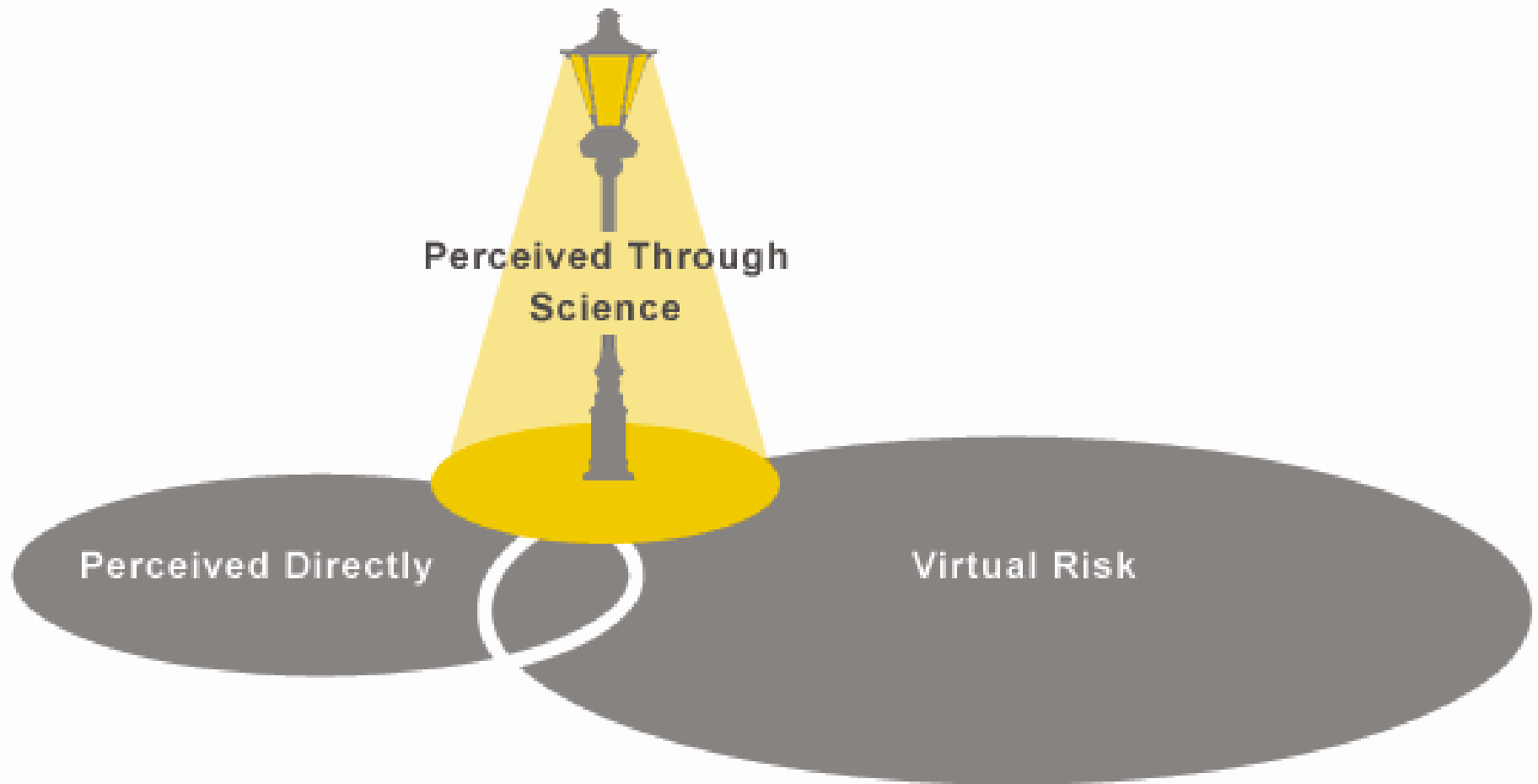


Total fatalities caused by pipe bombs disguised as bicycles, world-wide = 0



This bike is a pipe bomb

Risk management: where are the keys?



www.John-Adams.co.uk