

Interoperability and Inertia: The Psychology of Guess, Gut and Grip Decisions in High Stake Environments



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Research

Difficult People – FBI / HIG

Difficult Decisions – EU work / JESIP

Expert Witness / Advisor

Wimbledon Common Murder: R-v-Stagg / Northern Bank Robbery

Atherstone-on-Stour Fire

M5 Crash

Courses

Liverpool & London

CPD and MScs

Methods

Field Research

Live Exercise

HYDRA / 10kV

Mental Rehearsal Tasks

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Birkenhead Tunnel

- Time: NOW. Role: Fire Service
- Report of device detonated
- in Birkenhead tunnel, Liverpool.
- Upwards of 30 casualties.
- Extensive structural damage but
- No indication of tunnel collapse.
- No fire but smoke remains.
- Teams already deployed for casualty evacuation. Extraction is commencing effectively when you arrive on scene.
- Now: Police officer approaches and identifies himself as part CTU. “You need to know that there is a credible intelligence report of a secondary, larger device somewhere in the tunnel. We don’t know where exactly but the threat is most definitely credible. There is also an indication that it may detonate or be detonated in the next 15-20 minutes in order to maximise emergency service casualties”
- CHOICE: CONTINUE EVAC OR WITHDRAW?



THE CRITICAL DECISION / CHOICE...

“Hello.... It’s Mark, Mark Cunningham here...

I’m with a young lass, a 12 year old called Jamie...
she’s stuck.

I just need some cutters and I’ll have her out easy
enough...

I know you’ve said to withdraw but I’m not leaving
her until I can get her out...”

Today

- To understand and recognise the conditions where decision inertia arises
 - specifically 'consequence choosing' high stake decisions and accountability as well as how this plays out and threatens ideals of interoperability
- To understand the 'ideal' model of decision making in critical incidents.
- To understand and be able to utilise a structured method for defending difficult decisions.
- To illustrate a method for deliberate and repetitive practise for encouraging critical thinking.

‘Good’ decision making - traditional DM perspective

Comprehensive search + appropriate inference ...

In low stress environs ...

That are predictable / familiar to the decision maker, especially if they are an ...
Expert

- Relevant cues
- Redundancy
- Speed
- Recognition
- Metacognition
- Example: buying a house

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The CBRN 'Dilemma'



‘Reality of Critical Incidents’

No time to search

Too much information / not enough / contradictory

Multiple inferences ...

In highly stressful ...

Unique ‘once in a career’ events

Decisions mean life and death

... Where there are no experts & no policies ...Or no ‘tested’ policies

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Uncertainty

‘a sense of doubt that ***blocks*** or ***delays*** action’

Lipshitz & Strauss, 1997

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A decision is not a decision unless its difficult



Uncertain outcome

Cut red
= disable OR
detonate

Red or blue?
= disable or detonate?

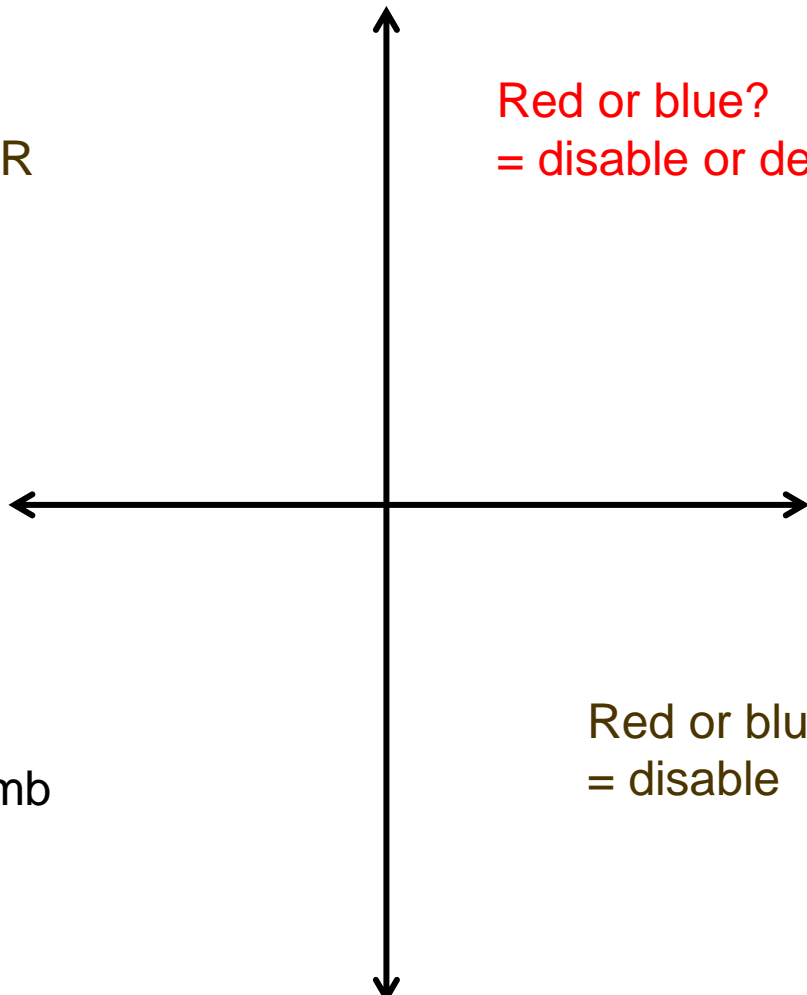
CertainTask

Uncertain Task

Cut red
= disable bomb

Red or blue?
= disable

Certain outcome



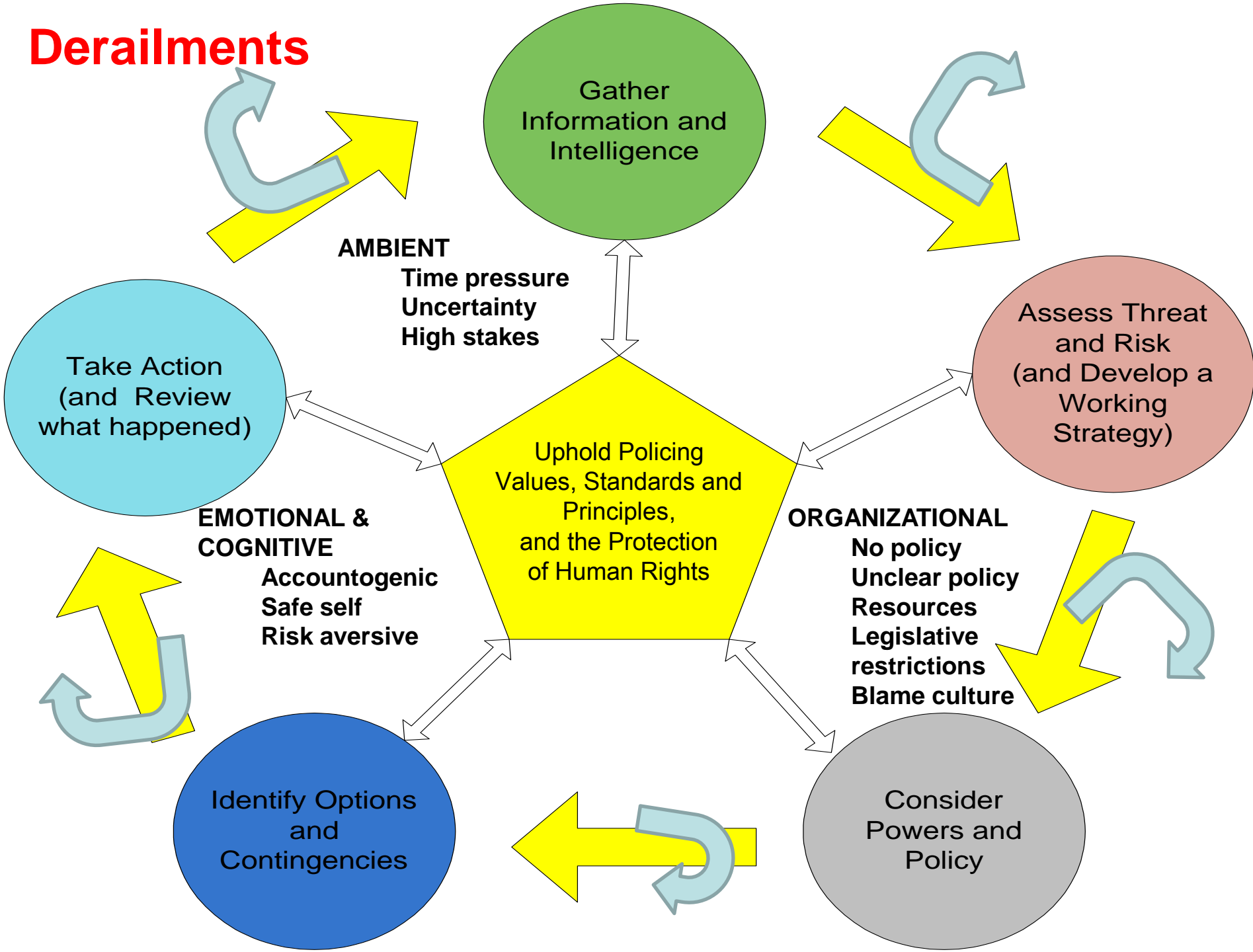
Theseus teams Debrief

- Command and control
- Borough Commanders
- Body recovery
- Mortuary
- Casualty Bureau
- Independent Advisory Group
- Family Liaison

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Derailments



Wicked problems and consequence choosing



Forms of Consequence Choice

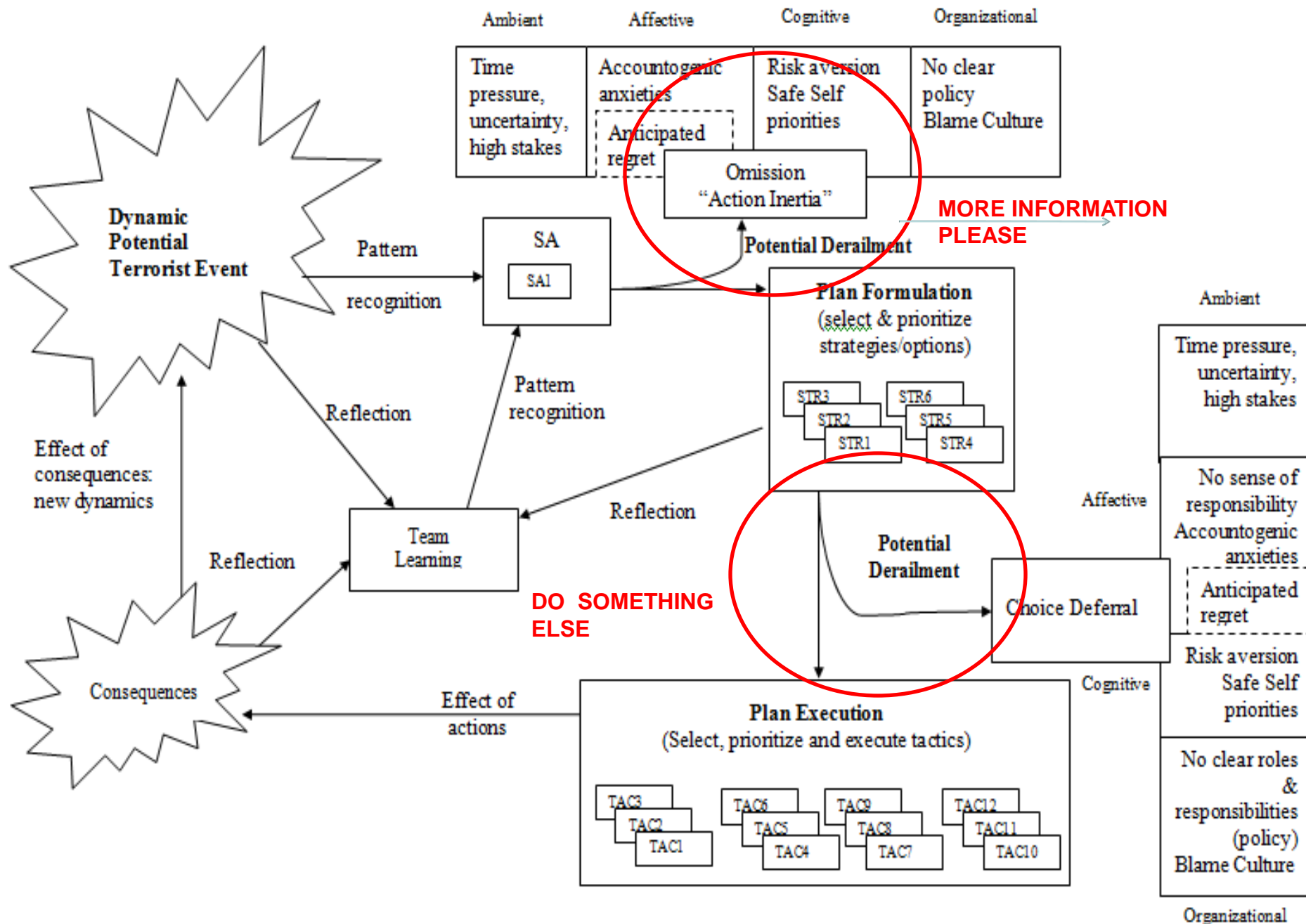
1. Do or Don't (buy a house or not / tell Government of Pakistan or not)
2. Which One (urban chic or rural idyll / air to ground missile / Navy Seals)
3. What Level (under budget or over budget / how much to reveal to the public vis-a-vis photographic evidence etc.)

‘Wicked’ problems (Conklin, 2005)

- Novel and unique
- Only understood until after the formulation of a solution
- No stopping rule (they carry legacy after the solution (commercial, political, psychological))
- Solutions are not right or wrong
- Every solution is a 'one shot operation' (you can't go back and change it if your decision was wrong)

Self-Constructing Scenarios: Wicked Problem Example





SAFE-T (the 'ideal')

Situation Assess (search for patterns in information / pattern matching)
recognising

Formulate Plan (including priorities and contingencies) prioritising

Execute Plan (put it into action) operationalising

Team Learn (clear mechanisms for learning) learning

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How **does** one do nothing?

Omission / Action Inertia at any stage (information gathering, threat assess, plan etc ...)

- Literally inactivity and paralysis
- Repeated requests for more information when there is none
- Anxiety about who 'owns' what
- Anxiety about multiple consequences may be regarding either choice

Choice deferral after plan formulation

- Someone else should do it
- Do something else
- Do it later (might be too late ...)

...and what psychological state underpins it?

Consequential thinking normally good ...

Negative anticipated regret

Equally attractive or equally unattractive outcomes = inertia

Whatever I choose could be bad for me / I could be missing out

I can't choose / you choose / ask the waiter / share with your partner

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The central ‘problem’ is not Decision Error

but ...

Decision Inertia ...

“It’s not Decision Making but Consequence Choosing ...”

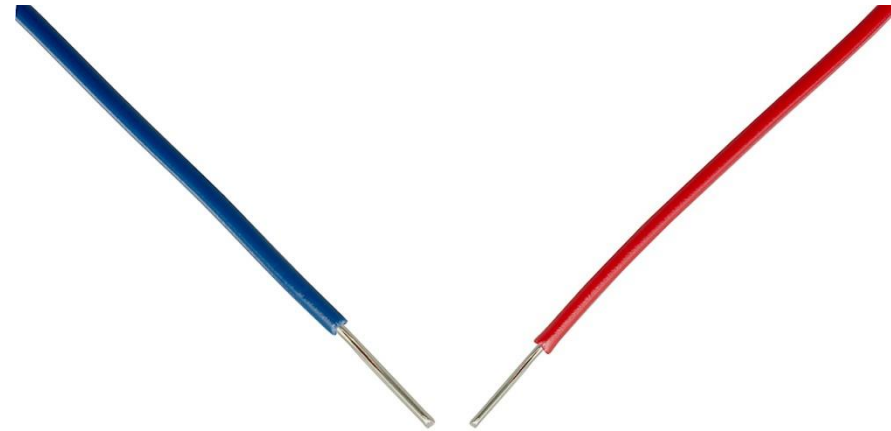
(Simon Parr, Buncefield Fire)

- The least worst option
- ‘Consequence choosing’ – which wire?
- Often leads to ‘doing nothing’

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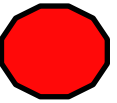
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The bomb paradigm & forms of consequence choosing



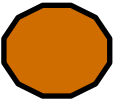
EEG Recordings

Primary Motor Cortex



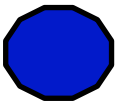
- Preparation of movement (right hand).

Somatosensory Cortex

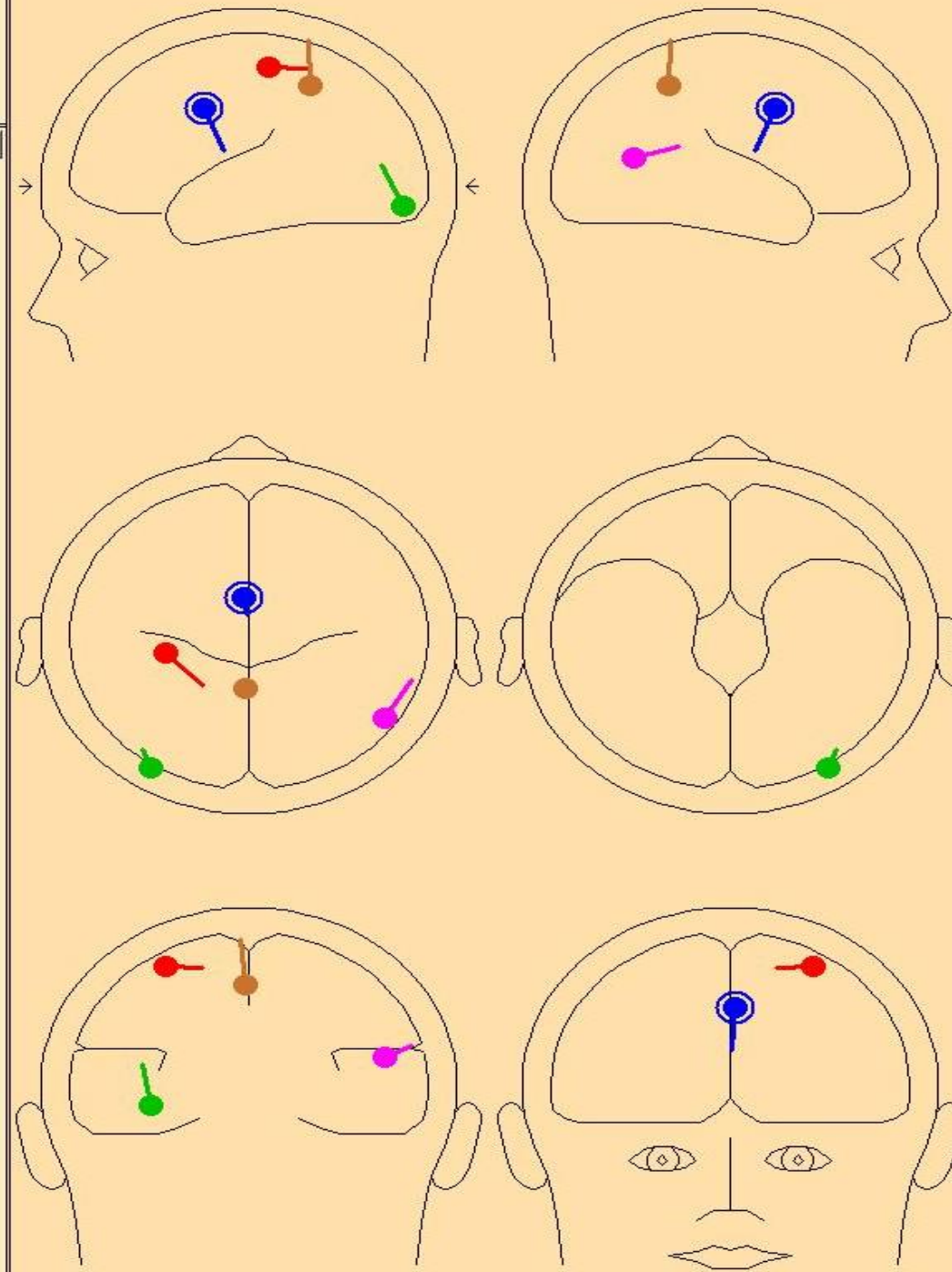


- Preparation and planning of movement.
- Readiness-potential and movement intention

Cingulate Cortex



- Source of emotional cognitive activity.
- Activation during cognitive conflict.
- Activation during preference judgements.



Threats to Effective Interoperable Functioning

Non-time bounded

Multiple agencies

Identification and agreement of superordinate goals was lacking

- communication *between* agencies decreased
- agencies instead focussed on *within* agency information seeking.

These barriers slowed down the decision making process by distracting teams with redundant information seeking rather than timely and efficient discussions on decisions and action execution.

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The 'GARD' system for deliberate practise

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GARD tasks for Deliberate Practise

1. What should you test?

Level One: Procedural – do I know the policy? (tests basic commonly agreed procedures). Expert Panel Agree

Level Two: Declarative – do I understand why it is as it is? (tests ability to articulate links between policy and actions taken) Expert Panel Agree

Level Three: Conditional Calibration – do I know when to apply it? And when not to? (test deep knowledge of policy) Experts agree

Level Four: Conditional Irregularity (as above but expert panel may not agree. Tests ability to argue both sides of an argument – Protagorean Argument

WHY TEST IT? To see if Decisions and Decision Makers improve both their decisions and their ability to articulate those decisions

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GARD tasks for Deliberate Practise

2. How do you build One?

- 1.CONSEQUENCE: Do or don'ts, which one or what level?
- 2.IMPACT: Preferably one that you've dealt with that YOU found hard to choose between and where you felt the impact of choosing between alternatives
- 3.TASK AND OUTCOME UNCERTAINTY: Then 'tweak it' to make it harder (ambiguous task, uncertain outcome, raise the stakes depending on level you wish to test)
- 4.SCENE: Set the scene (when is it set? what is happening? what role are you giving to the decision maker?)

GARD system

Landscape: Currently, what is: fact (F), assumption (A) or remains unknown (U) ...
And my procedural / resource-oriented / legislative / time) restrictions are (R)

Goal: What I want to achieve is ...(G)

Action (A)

- I have decided that
- I am going to
- I am going to choose

•**Reason:** The reason my action will achieve goal G is ...

•**Dynamic:** and I'm sticking with that unless ...

•**Alternative:** In which case the alternative is (ALT) ...

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Policing Critical Incidents

Leadership and critical incident
management



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