Identifying and Overcoming System-Wide Barriers to the use of PBS – Human Factors in Wicked Problems

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Outline

- Curious omission of human factors issues in general mental health / learning disability practice culture.
- Kahneman's 2 stage model
- Application of human factors evidence base to PBS Implementation
- Thoughts about potential solutions and implications for service design.

A note about PBS

- Individualised support plans, incorporating behaviour support plans, must be implemented for all people who use services who are known to be at risk of being exposed to restrictive interventions. [Paras 35, 61, 65, 106, 108, 115]

- When I talk about PBS and its implementation I am therefore talking about services for:
  - People with a learning disability
  - People with an Autistic Spectrum Condition
  - People with Dementia
  - People with a diagnosis of Personality Disorder
  - People with mental health problems

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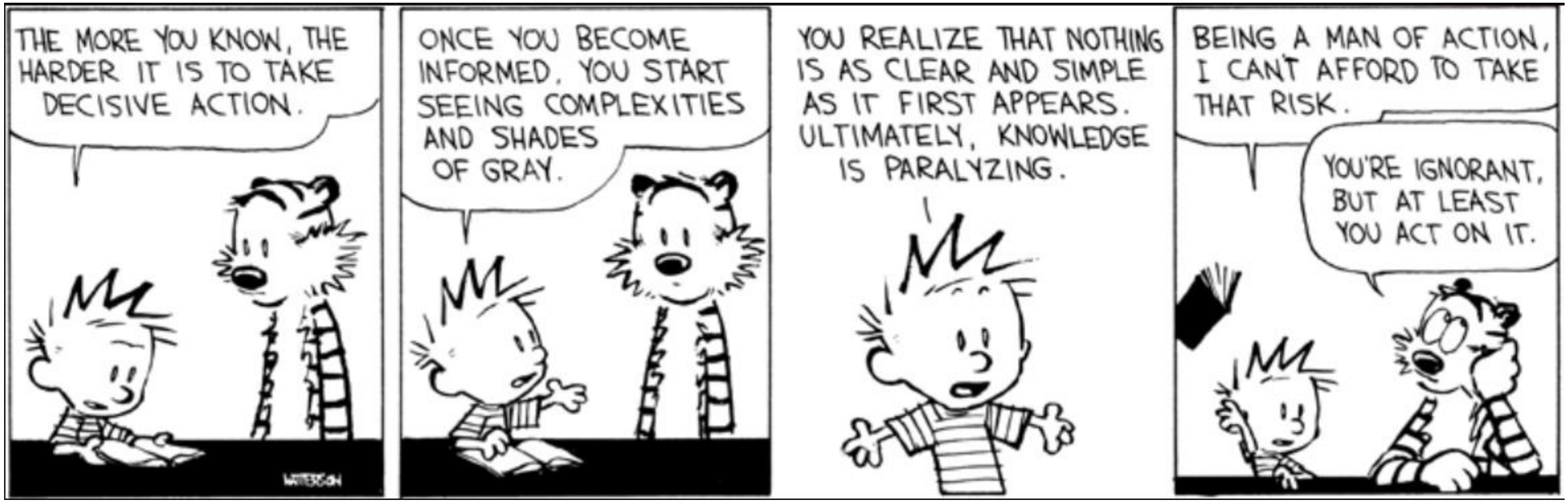
A Puzzling Omission?

- Much research and opinion in the MH/LD/PBS field has focused on training, staff stress, culture. i.e. ***psychological effects*** of a 'wicked problem' but not (human) ***psychological factors*** involved in its maintenance and origin.
- Very little in the area of patient safety / quality in MH/LD has focused on human factors research.
- Contrasted with the very high focus on human factors in physical health settings.
- It seems obvious that understanding the nature of human decision making and reasoning is critical when we think about problems with training implementation, staff stress, culture etc.

It’s Just Too Complicated…….(clinical reasoning and its side effects)



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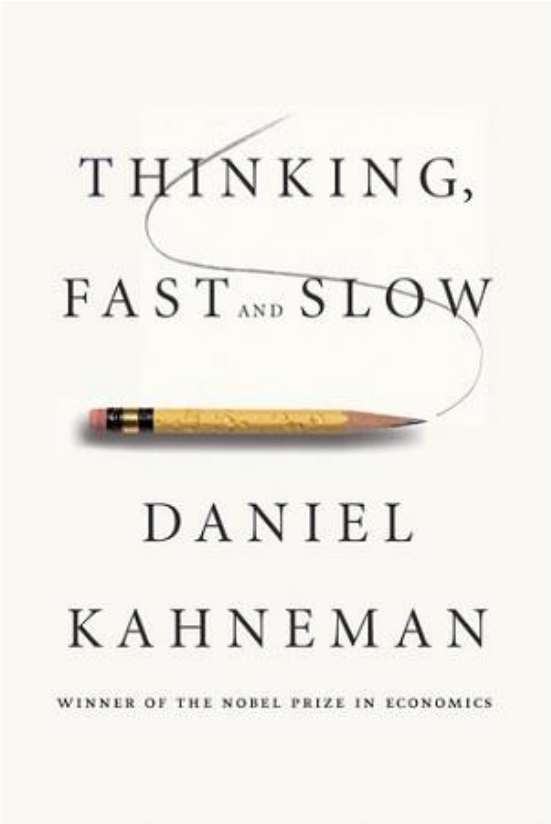
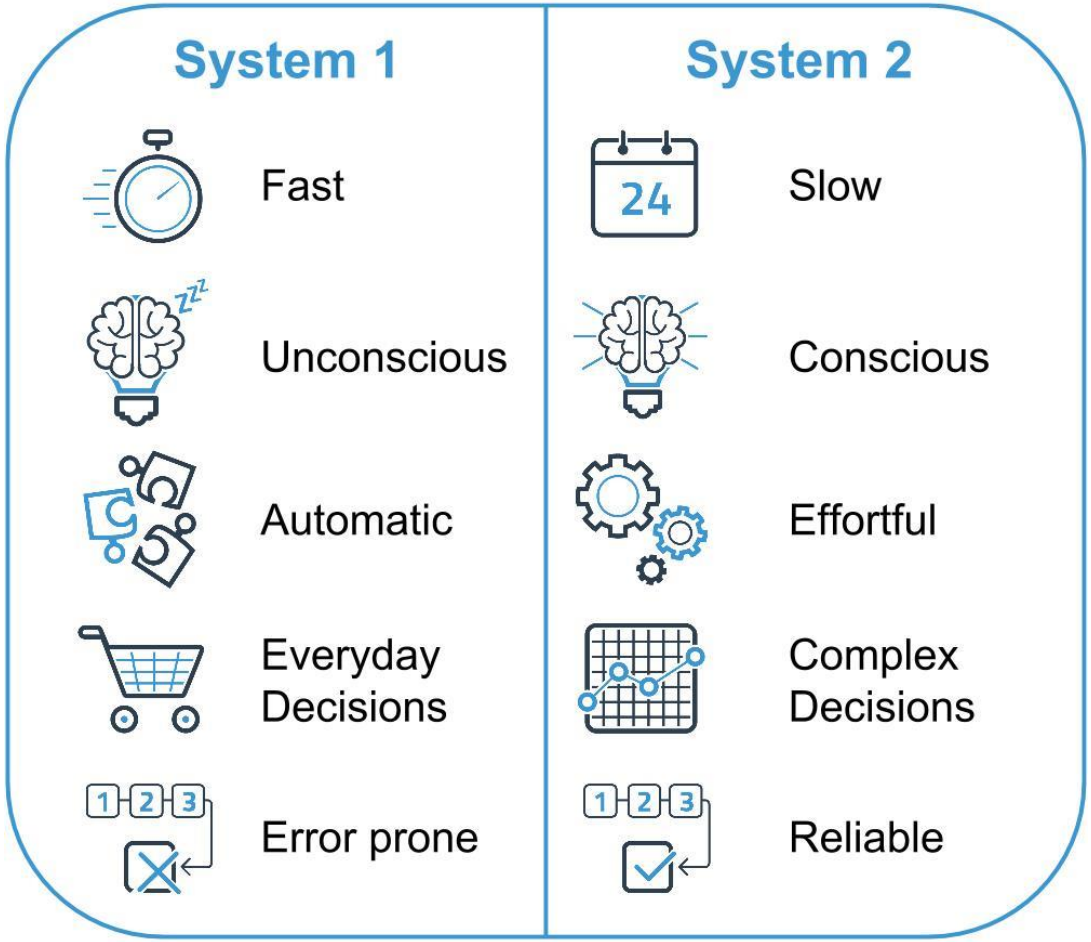
Styles of Thinking





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Lay understanding of illness and behaviour..

- We have a body
- Most of the time it works
- But as time goes on it starts wearing out…
- Or sometimes it starts just going wrong and we become ill
- When we are ill we need to go to someone to help us
- They either give us some medicine or they do something to us.
- We either get better, or we don’t
- Sometimes people are born not working properly and don’t get better
- They need people to come to see them to do things to them.
- Sometimes there is a problem with the brain and as a result sometimes these people do things that other people don’t.
- Behaviour is ‘good’ or ‘bad’
- Even if a person is “ill” they still need to be told what is ‘good’ or ‘bad’ behaviour and if they can't talk then you have to show them with consequences.

What we are all like….

	System 1	System 2
Characteristics	Fast, Effortless, Unconscious, Triggers emotions, Associative, Looks for patterns, Looks for causation, Creates stories to explain events	Slow, Effortful, Conscious, Logical, Deliberative, Can handle abstract concepts
Advantages	Speed of response in a crisis, Creativity through associations, so good for expansive thinking, Easy completion of routine or repetitive tasks	Allows reflection and consideration of the "bigger picture", options, pros and cons, consequences, Can handle logic, maths, statistics, Good for reductive thinking
Disadvantages	Jumps to conclusions, Unhelpful emotional responses, Can make errors that are not detected and corrected, such as wrong assumptions, poor judgements, false causal links	Slow, so requires time, Requires effort and energy, which can lead to decision fatigue

- System 1 is online all the time.
- System 2 is online only when it has to be (ie when there are clear violations of beliefs about the world) – it is lazy.
- System 1 is a 'strangeness detector'
- System 2 resolves anomalies by providing an explanation in the least effortful way possible.

A theory of staff beliefs

- A lay understanding of ‘health’ and ‘illness’ is likely automatically activated once people set foot in a health/care environment.
- There is a likely system 2 response to the perceived strangeness of seeing people behave in unusual ways – *a quick, less effortful and easily accessible explanation is sought.*
- Alternative explanations are more effortful because they require engagement of system 2 to develop more complex beliefs. While learning and new knowledge is required, the system resists because there isn’t a clear explanation for system 1, which prefers a simple explanation.
- This effort is increased due to the emotional pull of system 1 thinking whenever people are in high stress situations.

A theory of clinician beliefs and behaviour

- Clinicians have well developed system 2 derived belief systems that have become integrated with system 1 (e.g understanding causality / behaviour).
- Different disciplines have different types of system 2 derived knowledge / reasoning frameworks and processes. (eg medicine vs. clinical psychology vs. occupational therapy)
- It is not so effortful for clinicians to *engage* system 2 for backup in decision making when system 1 calls for it.
- But then like Calvin we can become paralysed by the complexity of what we are dealing with…

The theory would predict

- Now you are either:
  - Thinking this is overcomplicating things (system 1) and switching off
- Or
  - Thinking this is interesting and trying to apply it to lots of areas / issues you are dealing with and feeling overwhelmed, like you are pushing your mind through syrup.

What has this got to do with PBS?

- Causal explanations humans use for behaviour are not taught and cannot be taught – they are innate and automatic and the tendency is to give the simplest and quickest explanation.
- Behavioural / functional analytic explanations depend upon system 2 processes.
- There is an innate resistance in human beings to ‘think psychologically / behaviourally’ outside of immediate and obvious observable S-R situations.
- There is an innate resistance in human beings to acquire and use new knowledge when they already have an easily accessible explanatory framework for an event.
- Facts, evidence and reason has nothing to do with it.

What has this got to do with PBS?

- Failures to consider the psychological processes that restrict our capacity for understanding others may underpin:
  - Clinician / clinician or clinician / staff team conflict ***(Different system 2 content)***

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What has this got to do with PBS?

- Failures to consider the psychological processes that restrict our capacity for understanding others may underpin:
  - Evidence base showing that didactic training in reducing restraint / PBS / person centred care has less impact on care quality than we would like. ***(System 1 overriding new knowledge / strongly conditioned ideas about punishment and morality)***

What has this got to do with PBS?

- Failures to consider the psychological processes that restrict our capacity for understanding others may underpin:
  - Staff choosing to not follow written PBS plans (***System 1 overrides system 2 – system 2 effortful when 'not required'*** – (i.e. primary prevention) , and overridden by emotion when stress increases (i.e. secondary / reactive).

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What has this got to do with PBS?

- Failures to consider the psychological processes that restrict our capacity for understanding others may underpin:
  - Staff acting contrary to personal values / organisational values. (***System 1 override – organisational values and clinical environments may collide***(eg "when people try to harm you - defend yourself", "don't let people not have consequences for bad behaviour")

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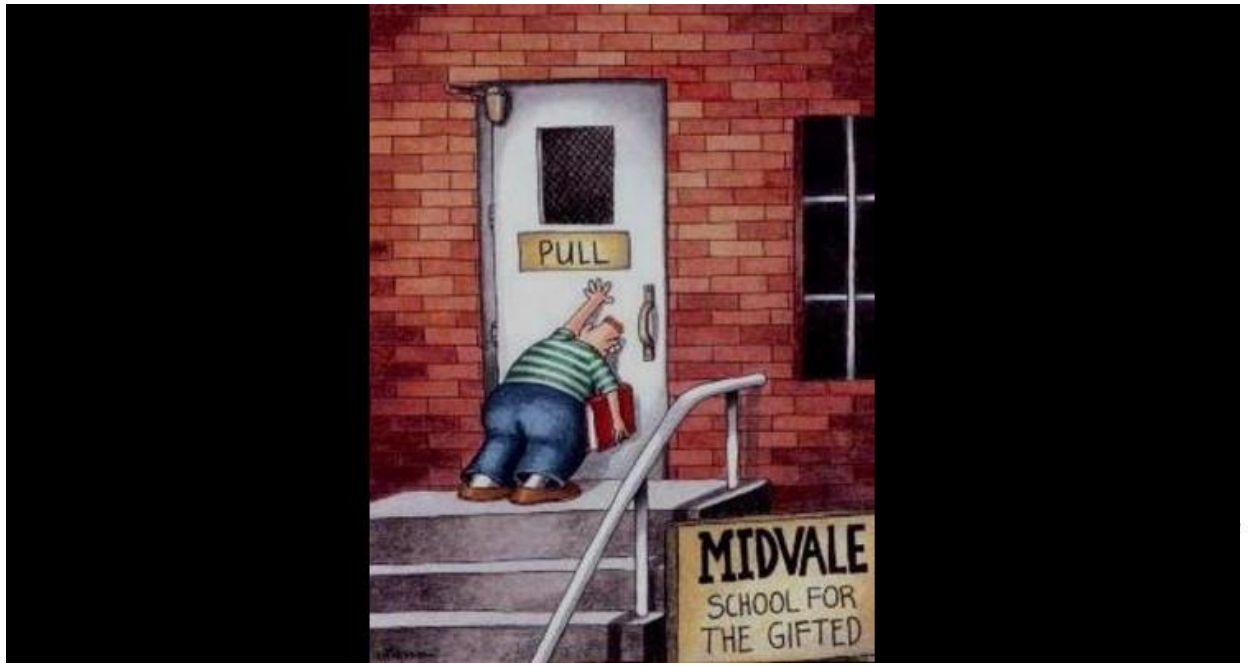
What has this got to do with PBS?

- Failures to consider the psychological processes that restrict our capacity for understanding others may underpin:
  - Overconfidence of (all grades of) staff when managing complex individuals. ***(System 1 prevents people seeing questions / difficulties)***



What has this got to do with PBS?

- Failures to consider the psychological processes that restrict our capacity for understanding others may underpin:
  - Underconfidence / reluctance of staff when asked to contribute to strategic (PBS) plans ***(System 2 requirement – effortful)***

"I'm disappointed. If anyone should have seen the red flags, it's you."

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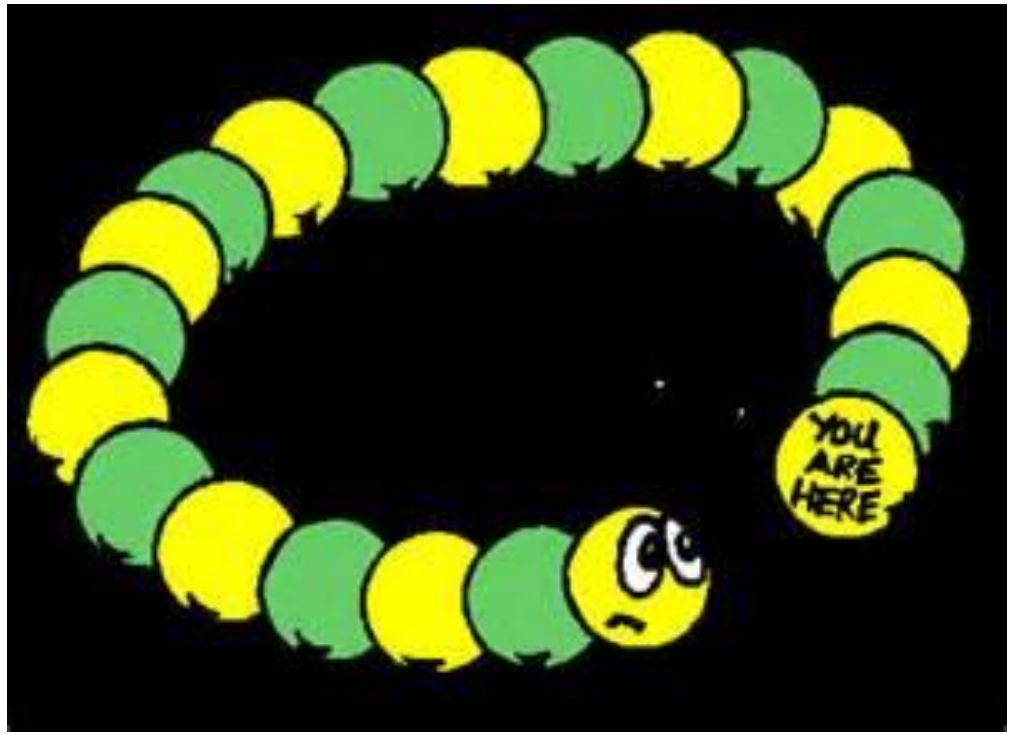
What has this got to do with Wicked Problems and Public Policy?

- Theory on wicked problems talks about complexity but often neglects the psychological issues underpinning the interconnected components of the wicked problem.
- "System mapping" tends to ignore the predictable psychological states of actors at each level in the system.
  - Politicians
  - Civil servants
  - Operational managers
  - Clinicians

- Senior actors in decision making positions are more likely to be vulnerable to the centipede's dilemma : highly developed system 2 knowledge ***and*** given the job of communicating this to others during periods of high stress/ conflict and critical decision making.

Craster – Centipede's Dilemma

"The centipede was happy – quite!
Until the toad in fun
Said 'Pray which leg comes after which?"
Which brought his mind to such a pitch
He lay distracted in a ditch
Considering how to run."



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What can you do about it?

- You can’t do anything about it
- It’s the way we are.

How can you minimise risks?

- Supporting system 2:
  - It's use in people who have the required knowledge and skills

    - Ensure time when system 2 can be safely activated and strengthened
      - Eg supervision
      - Middle manager and clinician knowledge in cognitive factors and their impact on clinical decision making
      - Acceptance that it may be slower – organisations need time to work strategically beyond crisis

How can you minimise risks?

- Supporting system 2:
  - The development of analytic thinking in people who don't have the knowledge and skills.
    - Reduce **cognitive effort** for all new information NB **Psychological Jargon**. **Readability**.
    - **Ergonomics** of communication materials (eg font, colour) as well as content
    - Pre-empt **lack of engagement** (assume it and don't see this as pessimism)
    - **Reduce frustrated response** when staff don't 'get it' when dealing with a challenging person (of course they don't – we are hard wired by nature not to).
    - **Reward** examples of analytic / considered thinking about a person – cognition is effortful and reward needs to be as immediate as possible
    - Reduce the **authority gradient** in staff teams to allow for more junior staff to override poor (System 1 driven?) decisions of more senior staff without punishment and without humiliation of the senior staff.

How can you minimise risks?

- Supporting system 2:.
  - The prevention of system 1 decisions that override system 2 decisions in health and social care settings

    - Clear message that the system is being **actively monitored** by people who are following written guidance and requirements.
    - Authoritative (rather than authoritarian) approach to clearly unsafe and incompetent decisions from those the top of the authority gradient. The authority gradient needs to be appropriate to team skills but still needs to be **there** and **clear**.
    - More flexible approach to disagreements with logically planned clinical instructions (eg in PBS plans) when these are questioned **even if the questioning proceeds from a low knowledge base.**
    - Practice leadership that is **clearly aware of and considers** cognitive factors in system design and error investigation (eg Root Cause Analysis will not get to 'root cause' if it neglects consideration of cognitive factors).

Final Thoughts

- What about training?
  - Policy requirements still about ‘have staff had training’ than ‘how does the relationship between training and staff behaviour get examined?’.
  - How should trainers/practice leaders respond when the gap between knowing and acting in teams becomes clear?
  - Do we focus enough on beliefs and belief change in training / supervision?
  - Do we acknowledge how hard it is to psychologically reason about behaviour?

Thank You!

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