# Cognitive Foundations of Risk Management Excellence

*Genest (2025)*

## Context

Three cognitive failure modes recur across high-stakes risk decisions: unjustified assumptions, incomplete risk identification or information, and lack of relevant experience leading to inappropriate use of risk assessment tools. These are knowledge-management vulnerabilities built into how seasoned professionals think, which means even well-resourced risk systems miss risks that look obvious in hindsight. Treating these failures as systemic rather than individual opens the path to designing decision systems that work with cognitive limits rather than against them.

## Key Insights

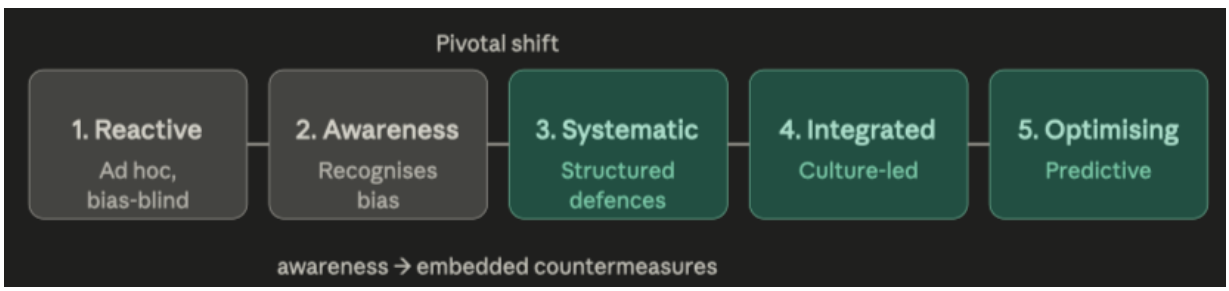
**Three key cognitive failure modes**

- *Unjustified assumptions*: anchoring on historical performance and confirmation bias filtering contradictory evidence, often perpetuated through unexamined tacit knowledge
- *Incomplete identification*: availability bias overweights vivid risks while groupthink and siloed expertise leave shared blind spots unaddressed
- *Inappropriate tool use*: overconfidence drives misapplication of methods such as scenario analysis or stress-testing, which produces false rigour without addressing underlying expertise gaps
- Enhanced by the negative-reasoning trap: Post-incident reviews focus on what did not happen (procedures not followed, escalations not raised) rather than what actually drove the outcome, which means counterfactuals dominate analysis even though they never shaped events

***See next page for practical mitigations, also mapped onto FORGOOD (author‘s interpretation).***

**Five stages of organisational maturity**

1. Reactive — assessments rely on individual judgment, tacit knowledge isolated, surprise failures recur
2. Awareness — training in place but countermeasures inconsistent, templates applied mechanically
3. Systematic — standardised protocols with devil's advocate roles, knowledge managed as asset
4. Integrated — cogn. rigour firm-wide embedded, technology supports knowledge flow, dissent rewarded
5. Optimising (predictive) — real-time bias detection, adaptive learning systems, sector-shaping practice




*Visualised with Claude*

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**Mapping cognitive risks to action and FORGOOD (author‘s interpretation).**

*Each row pairs a recurring cognitive failure mode (see previous page) with the structural strategies and systems Genest proposes and the FORGOOD dimension each brings into focus.*

| Cognitive Risk | Counterstrategies & systems | FORGOOD Reflection Question |
|---|---|---|
| **Unjustified assumptions** *Anchoring on historical performance; confirmation bias filtering contradictory evidence* | Assumption documentation; structured cognitive interviewing to surface tacit beliefs; evidence requirements before conclusions | **O - Opennes** Are assumptions visible and testable? |
| **Incomplete identification** *Availability bias overweighting vivid risks; groupthink in homogeneous teams; expertise trapped in functional silos* | Cognitive diversity in teams; cross-functional integration; rotating membership; external perspectives | **F - Fairness** Are risks to all affected groups equally identified? |
| **Inappropriate tool use** *Overconfidence in own expertise; lack of relevant experience with the methodology; tools applied as ritual rather than understood* | Expertise mapping; dynamic specialist access; methodology fit-checks before tool selection | **D - Delegation** Is this team competent to make this call? |
| **Premature closure** *Groupthink suppressing dissent; consensus pressure forcing early conclusions* | Staged decision-making (separate identification from evaluation); devil's advocate roles; independent review | **O - Options** Have genuine alternatives been considered? |
| **Negative reasoning** *Investigations focus on what did not happen rather than what actually drove the outcome* | Causal analysis frameworks; reasoning from what occurred rather than what was absent | **G - Goals** Are we addressing real drivers or imagined ones? |
| **Tacit knowledge loss** *Expert intuition undocumented; capability vulnerable to retirements and turnover* | Structured cognitive interviewing; reasoning capture not just conclusions; expertise networks | **D - Delegation** Will capability survive personnel change? |
| **Stale organisational knowledge** *Outdated mental models; assumptions hardening into accepted facts as conditions change* | Performance validation; assumption testing against operational data; feedback loops | **G - Goals** Are outcomes still verified against current conditions? |
| **Cultural suppression of challenge** *No psychological safety to question; pressure to reach consensus silencing dissent* | Leadership signalling; recognition for dissent; learning culture | **R - Respect** Can people challenge without cost? |

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