A shared human factors question for pilots, engineers, regulators, academics and Defence aviation professionals.

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From Inclusion to Safer Decisions

Improving Safety Voice and Safety Listening Through Better Assurance Communication in Aviation

PEOPLE AT THE CENTRE

SAFETY VOICE SPEAK UP

SAFETY LISTENING LISTEN WELL

ASSURANCE BUILD TRUST

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The Aviation Problem

We focus on speaking up — but listening matters too.

WHAT WE DO WELL

- CRM training
- Human factors training
- Speak up culture
- Reporting and escalation

WHAT WE OVERLOOK

- How we interpret
- Unconscious bias
- How we process
- How we respond

Aviation has invested heavily in teaching people to speak up. But good safety outcomes also depend on how concerns are heard, interpreted and acted on. Our unconscious biases, assumptions and ways of processing information can shape whether a message is understood — or missed.

The message may be clear — but the listener's filter changes what is heard.

My anchor: aviation, assurance and mentoring

A career journey that led me back to the same safety question from a new angle.

32 years

Aircraft technician, engineering officer, industry safety-critical roles and aviation regulatory space.

Mentoring

Helping engineers find their voice, build confidence and communicate with impact.

Teaching

More than 300 engineers taught in system safety and operational assurance principles.

A moment that stayed with me

When evidence, rank and communication style collided.

“I raised a concern.
I brought evidence.
It was dismissed.”

As a trainee engineer, the concern was not heard the way I intended.

In hindsight, it was not only about experience — it was also rank, style and interpretation.

That early lesson now sits at the heart of my PhD question.

Assurance communication is not ordinary workplace communication

It is the disciplined transfer of evidence, assumptions, boundaries and risk decisions.

Evidence traceability

What is the concern linked to?
What evidence supports it?

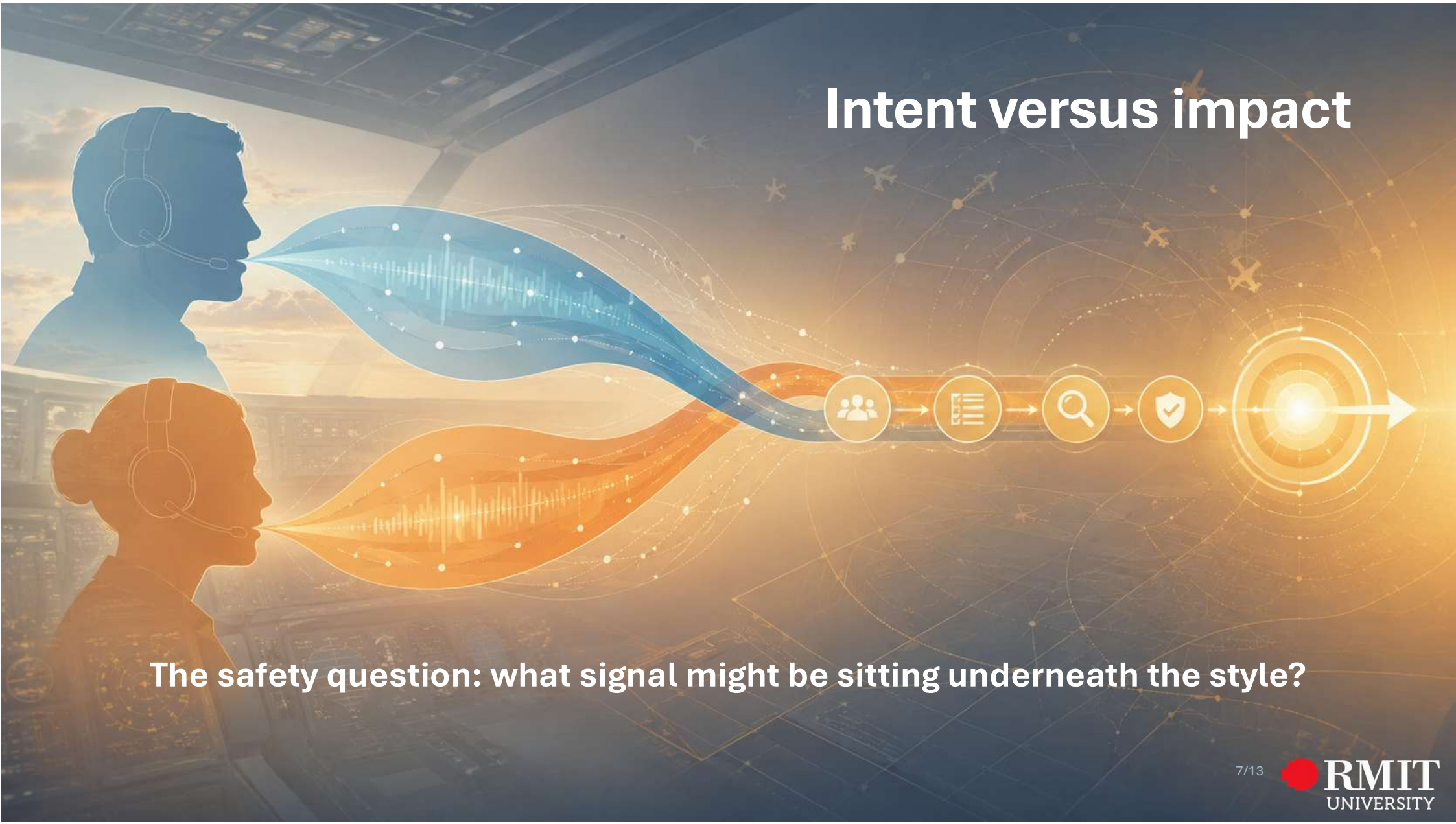
Uncertainty framing

What do we know?
What are we assuming?

Verification closure

What was agreed?
Was it actually done?

Intent versus impact



The safety question: what signal might be sitting underneath the style?

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Speaking up is only half the equation

Safety voice needs safety listening.

Safety voice

How a concern is raised so that the risk and impact can be understood.

Safety listening

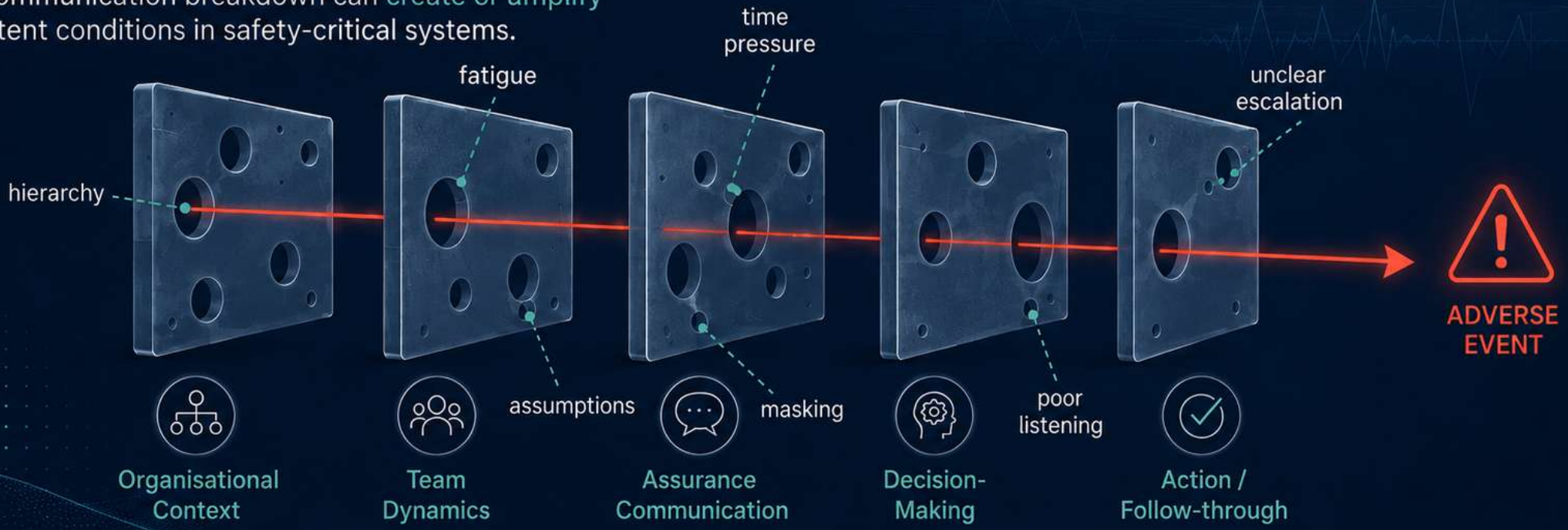
How leaders and teams receive, clarify and act on concerns — including what is not said.

Where Communication Creates Latent Conditions

SENSING → INTERPRETATION → DECISION → ACTION

FEEDBACK

Communication breakdown can create or amplify latent conditions in safety-critical systems.



What my PhD is examining

Early-stage research, informed by aviation experience and focused on practical outcomes.

- How autistic traits may shape engineers' assurance communication styles in Australian military aviation.
- How mixed communication styles affect inclusion, teamwork effectiveness, safety voice and safety listening.
- How communication scaffolds could improve the quality and timeliness of assurance decisions.

Not about diagnosing people

About patterns that may already exist in technical workforces

What better communication scaffolds could look like

Small changes that make evidence, assumptions and follow-through harder to lose.

Make scope explicit

What is this about, and what is it not about?

Name uncertainty

What do we know, assume, need to verify?

Trace evidence

What source, regulation, test, record or decision supports it?

Close the loop

What will be done, by whom, and how will we know?

What I am asking from the aviation community

Help build the evidence base, not just the conversation.

- Bachelor-qualified engineers who work, or have worked in the last 10 years, in the Australian Defence industry.
- A wide range of people: graduates to senior engineers; engineering, assurance, safety, regulatory, management and human factors roles.
- No diagnosis is required. Participation is about communication experience, not labels.

Participation

30-minute survey
Optional 1-hour interview
Confidential insights

Call to action

Safer decisions start with better communication and better listening.

Participate in the study

Refer an engineer

Listen differently

Share the message

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Communication mismatch can affect assurance decisions — and better understanding of these conditions can strengthen aviation safety.