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Failure MUST be an option

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About me!

Olivier BREDA
Senior Agile Coach &
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First contact with (real) failure

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It’s easier to face what you understand.

Spectrum of reasons for failure

PRAISEWORTHY — BLAMEWORTHY

Exploratory testing
an experiment conducted to expand knowledge and investigate a possibility leads to an undesired result.

Task challenge
an individual faces a task too difficult to be executed reliably every time.

Lack of ability
an individual doesn't have the skills, conditions or training to execute a job.

Hypothesis testing
an experiment conducted to prove that an idea or a design will succeed fails.

Process inadequacy
a competent individual adheres to a prescribed but faulty or incomplete process.

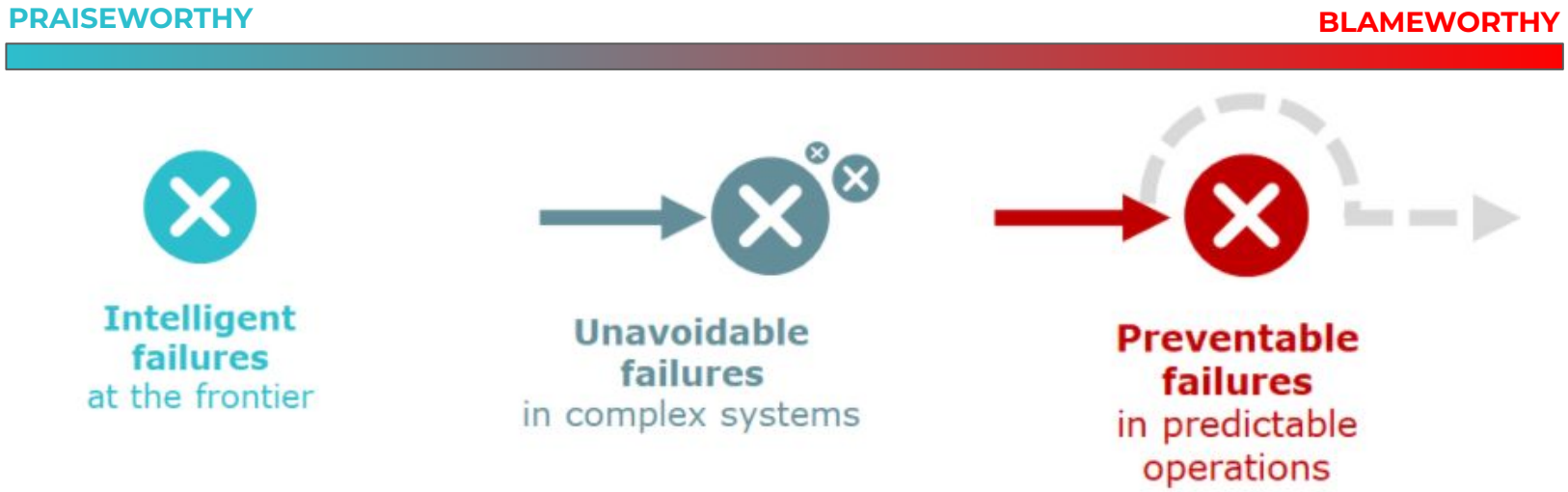
Inattention
an individual inadvertently deviates from specifications.

Uncertainty
a lack of clarity about future events causes people to take seemingly reasonable actions that produce undesired results.

Process complexity
a process composed of many elements breaks down when it encounters new interactions.

Deviance
an individual chooses to violate a prescribed process or practice.

Spectrum of reasons for failure



Unavoidable failures in complex systems

Prevent with: best practices, risk management, strong and well-known process.

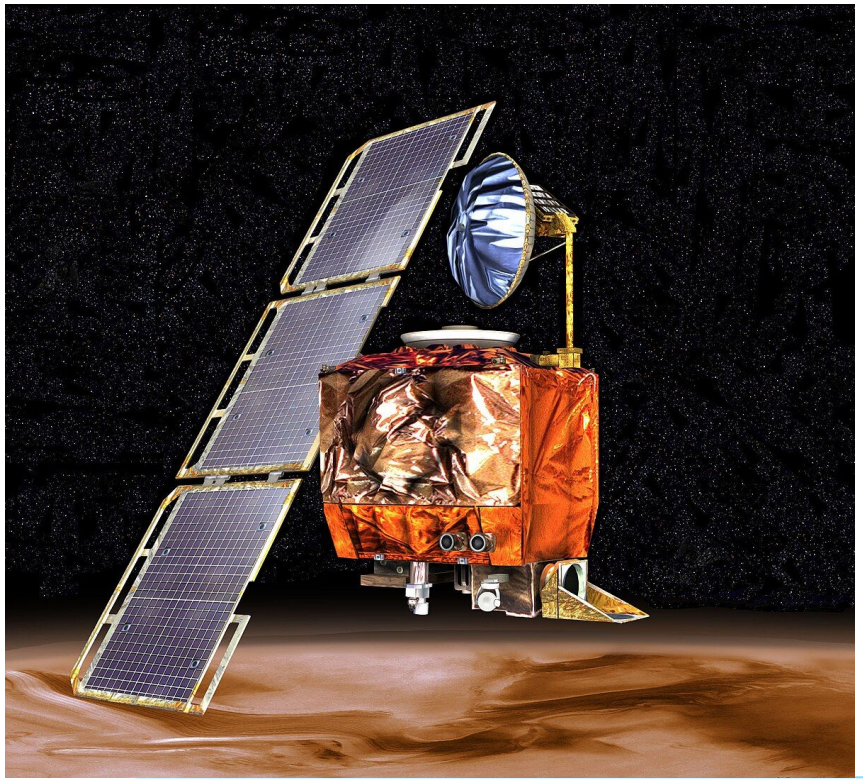
Don’t let small failures piling up.

Correct small failures without serious consequences to avoid accumulation leading to significant errors.

Very complex systems often encounter unpredictable situations:

- **Triaging patients in a hospital ED**
- **Responding to enemy actions on the battlefield**
- **Running a fast-growing start-up**

Small mistakes leading to a disaster



Mars Climate Orbiter (1999)

Unit mismatch: Lockheed used imperial; NASA expected metric.

No verification: Unit consistency never tested end-to-end.

Vague specs: Documentation didn't specify measurement units.

Weak reviews: Assumed others had checked conversions.

Ignored anomalies: Small trajectory drifts dismissed as normal.

Blind trust: Over reliance on automated navigation.

Poor handoffs: JPL and Lockheed worked in silos.

⇒ The perfect recipe for a $125 million dollars failure! 🤦

Intelligent failures at the frontier

Failure is basically emotionally charged.

Disconnect emotion from intelligent failures to build a learning culture.

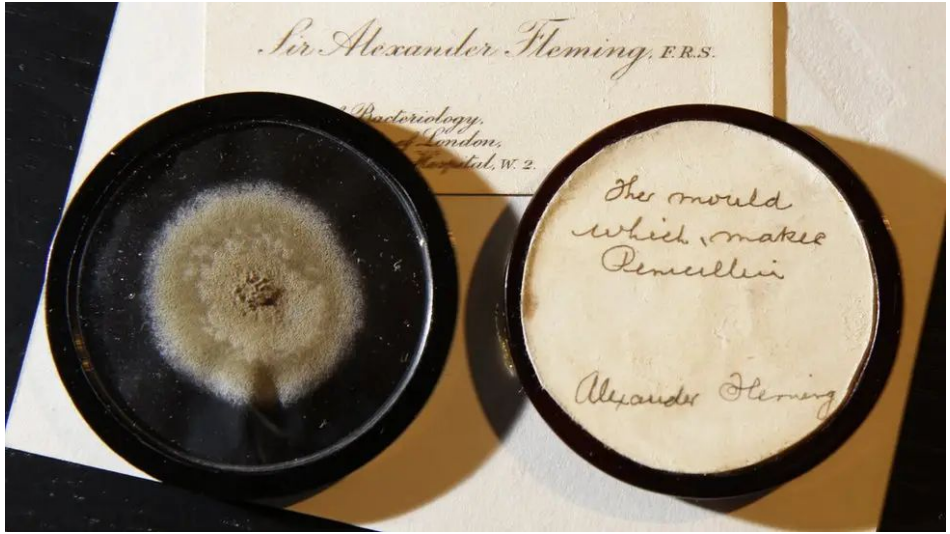
Focus on **“what happened?”** and not **“who did it?”.**

The faster **we fail,** the faster **we’ll succeed.**

Encountered in experimentation:

- **Answers are not knowable in advance**
- **Trial and error ? Test and learn whatever the outcome**

Failures leading to great discoveries



Penicillin (Alexander Fleming, 1928) – Mold accidentally contaminates a Petri dish, kills bacteria nearby — the birth of antibiotics.

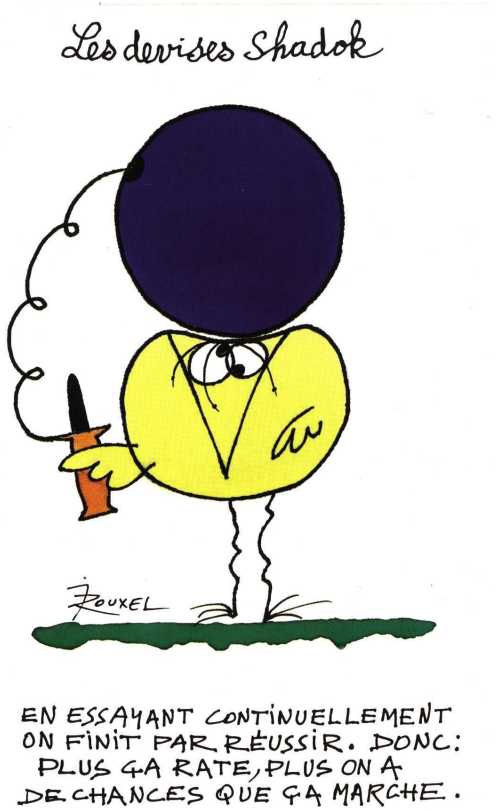
Post-it Notes (3M, 1974) – A weak adhesive, initially a “failed glue,” becomes one of 3M’s most iconic products.

Viagra (Pfizer, 1998) – Heart medication trial fails — participants report an unexpected side effect that becomes the product.

SpaceX rocket landings (2013–2016) – Multiple crashes while testing reusable boosters. Each explosion taught design and software lessons, enabling routine landings today.

Let’s fail again and again!

If we keep trying, we end up succeeding. Therefore: the more we fail, the more we get to succeed.



Innovation vs self-preservation

0€ | +10€	100€ | -10€
10 questions, 10€ rewarded for each good answer	**10 questions, 10€ removed from 100€ total for each bad answer**
Focus, engagement	No longer centered on potential gain
“Approach motivational state” focused on achieving positive outcomes	“Avoidance motivational state” sensitized to the possibility of loss

Innovation vs self-preservation

0€ | +10€

10 questions, 10€ rewarded
for each good answer

Focus, engagement

“Approach motivational state”
focused on achieving positive outcomes

- **More flexible cognitive style**
- **Ability to take a broader view**
- **More creative**
- **Fearless engagement**

Innovation vs self-preservation

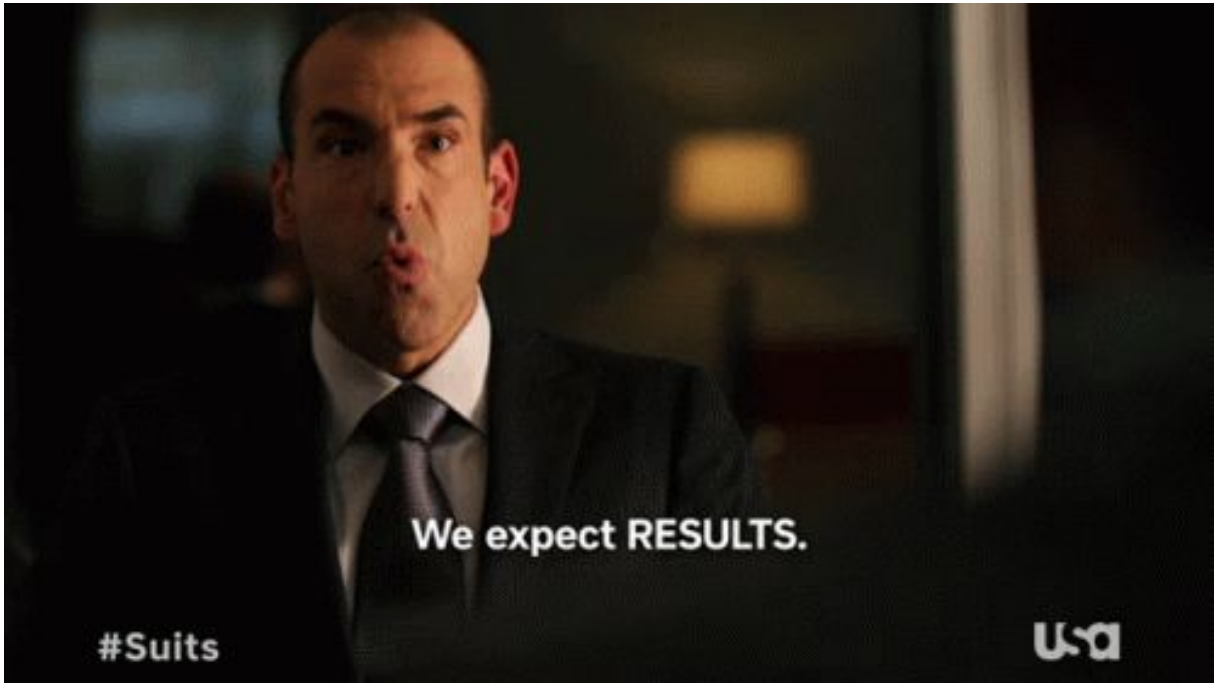
- More rigid thinking
- Insights become a lot more elusive
- Stress reaction
- Challenge difficulty overestimation

100€ | -10€

10 questions, 10€ removed
from 100€ total for each bad answer

No longer centered on potential gain

“Avoidance motivational state”
sensitized to the possibility of loss



… and you're perfectly right. Let's get into it.

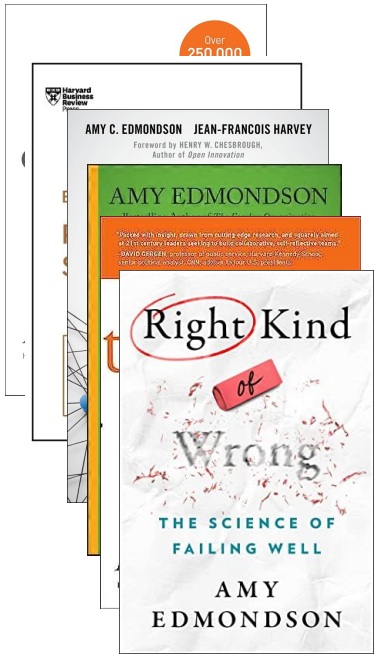
Have you met Amy?

Harvard management and leadership professor since 1996

Ranked #1 on Thinkers50 2023

Ranked in Thinkers50 since 2011

Coined “psychological safety” in organizations



+ ~75 articles & case studies

Amy C. Edmondson

Successful teams make more mistakes...?

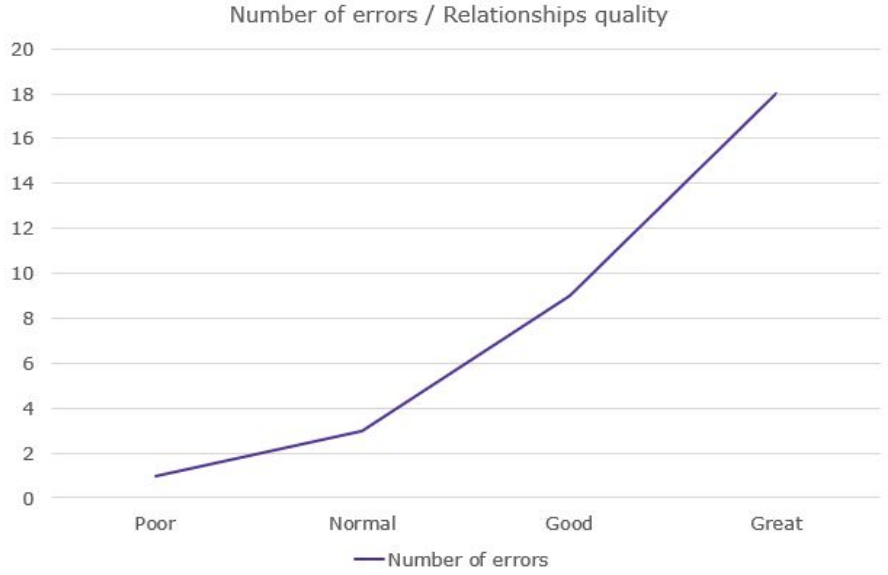
Psychological safety and learning behavior in work teams (1999) by Amy Edmondson

Study of **hospital care teams** and their performance.

Measured **team relationships** and **error rates**.

Teams with **strong collaboration** showed **more errors**.

The **best teams seemed to perform worse**.



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Successful teams report more mistakes

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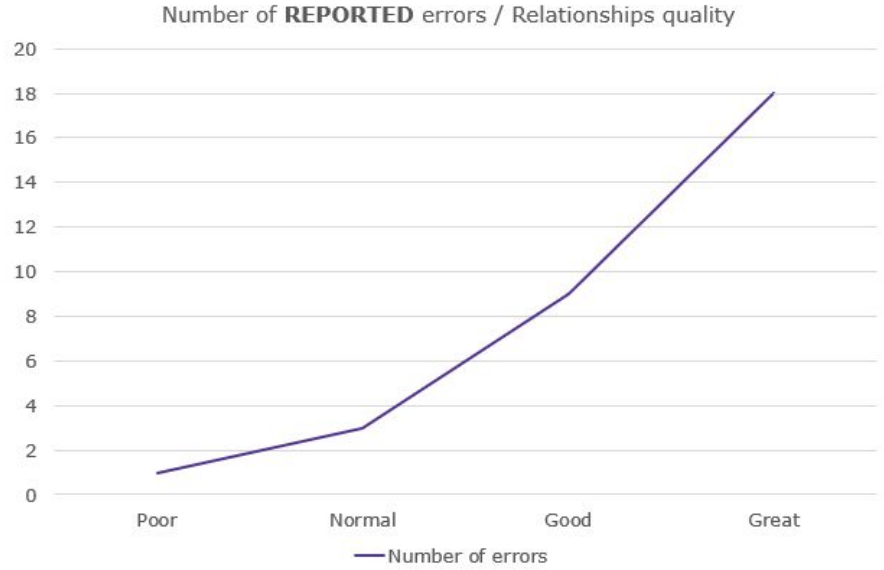

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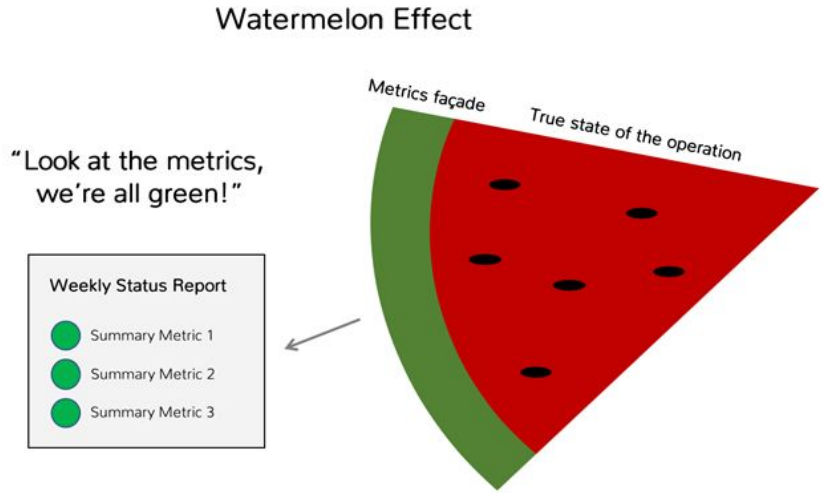
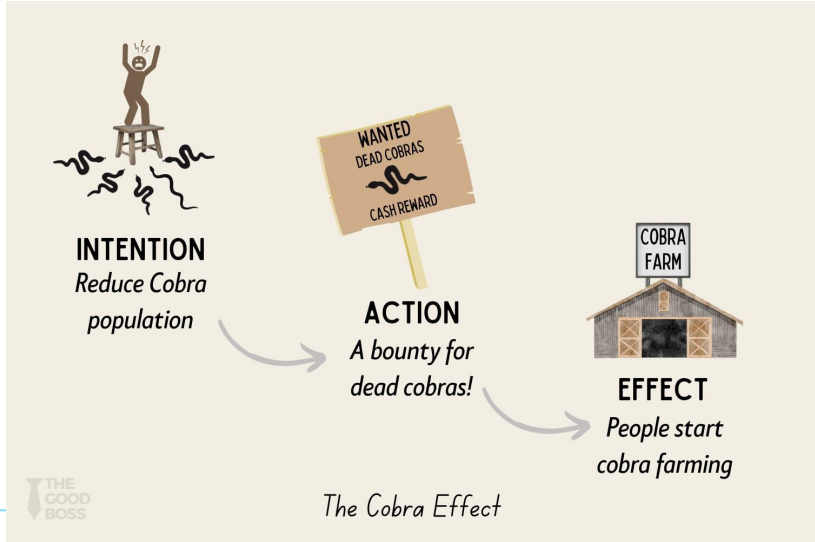
Successful teams make reality visible

Too severe consequences leads to avoid reporting failures.

Fearful teams avoid examining the causes of their blunders and repeat errors sooner or later.

Fearful teams make problems and consequences not immediately visible, leading to bigger damages to the organization before it can react.





Psychological safety makes you take better decisions.

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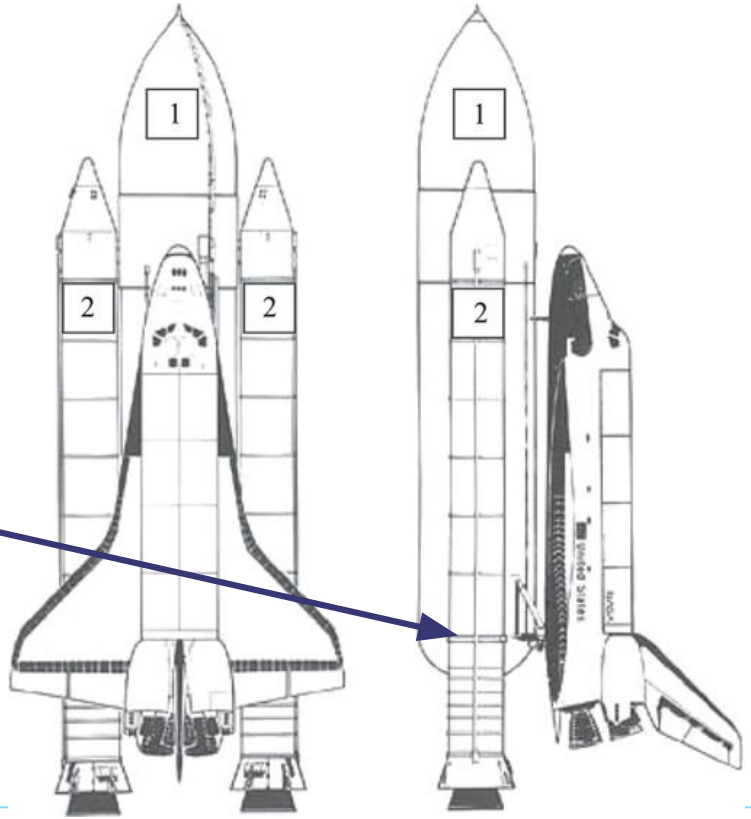
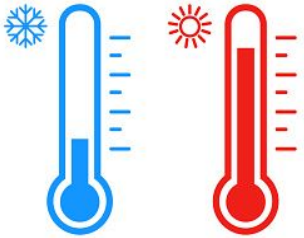
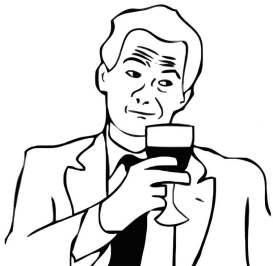


Rubber o-ring



Psychological safety makes you take better decisions

- Morton Thiokol engineers are still worried ⇒ under 11°C o-rings start being less reliable.
- Roger Boisjoly (MT) wrote a warning note about this 1 year ago and recommends to postpone.
- MT's CEO is present in this conference call.
- Challenger's launch is strategic for the NASA.
- NASA's market is strategic for MT.
- Many MT & NASA's engineers remain silent.
- George Hardy (high NASA manager) shares he's "appalled" by postponing recommendation.
- MT's president mutes conference and ask his engineers "Am I the only one willing to make Challenger fly?".
- MT engineers remain silent.
- MT's president unmutes then officially confirms MT recommends to maintain launch.
- NASA's happy and doesn't ask for additional insights that motivates the decision they expect.



Psychological safety makes you take better decisions

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In God we trust; all others bring data.
W. Edwards Deming

How can you measure the psychological safety level in your organization?

Interpersonal risk taking
Admitting mistakes, raising tough issues, taking risks, and asking for help.

Respect and inclusion
People feel accepted, not rejected for being different, and confident others won't undermine them.

Appreciation of contributions
Whether individuals feel their unique skills and strengths are recognized and valued by the team.

https://www.futuretalentlearning.com/hubfs/Nutshells/Templates/FTL_Measuring%20psychological%20safety%20NB_V3.pdf

How can you assess a leader's practice regarding psychological safety?

Setting the stage and framing the work

Defining the work, its complexity and stakes, and how small failures are expected.

Inviting participation

Encouraging open contribution through humility, real questions, and safe spaces for dialogue.

Responding productively

Listening supportively, valuing input, and setting clear, fair boundaries for behavior.

https://www.futuretalentlearning.com/hubfs/Nutshells/Templates/FTL_Psychological%20safety%20leadership%20template%20NB.pdf

So next time you're reported a failure...

Move from this:

To this:


THANKS FOR
YOUR ATTENTION
CLAP AND DON'T ASK
ANY QUESTION, PLEASE

Share your feedback!