The Human Factor:
Psychological Safety in Cybersecurity Frontlines

Cristiana Brafman Kittner

Who am I?

Cristiana Brafman Kittner

- Threat Intelligence, Google Cloud
- Washington, D.C. via Rio de Janeiro, Brazil, London, England, and Boston, Massachusetts

Barbara Brafman Price

- *Psychologist*
- *Trustee for West Essex Mind, England*
- *Saffron Walden, England via Rio de Janeiro, Brazil-London, England*

About Cris Kittner

Education

Boston University

Rotterdam University

Georgetown University

Experience

Paralegal

Cyber Defense Analyst

Principal Analyst

Continuous Learning

NIST 800-53

NICE Framework

Google Digital Cloud Leader

Community & DEI

The Diana Initiative

The Executive Women's Forum

The Women's Society for Cyberjutsu

Carioca by heart, naturalized American citizen, global nomad by chance

Agenda

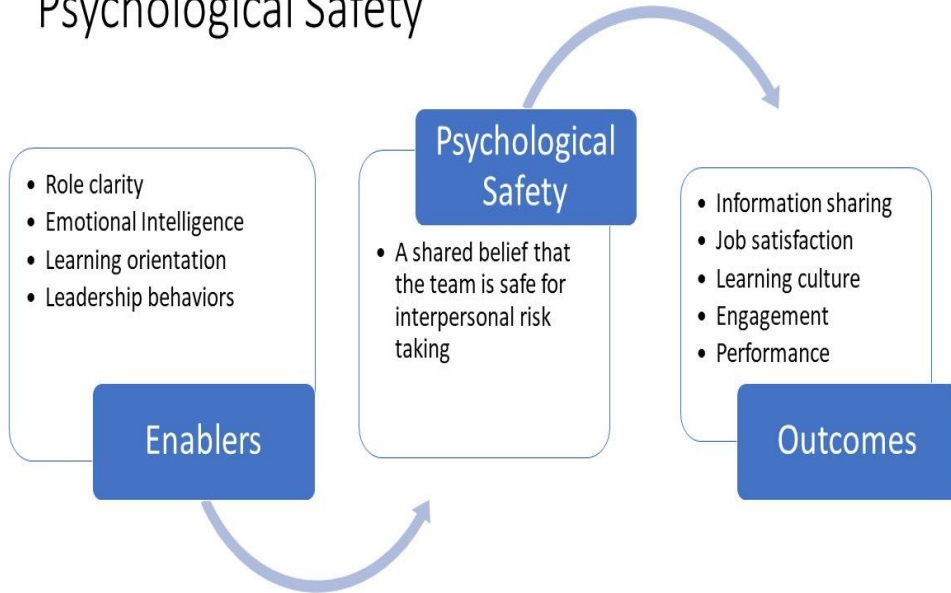**Psychological Safety - Why does it Matter?**

Defining Psychological Safety

Psychological Safety in Cybersecurity Frontlines

Cultivating Psychological Safety

Psychological Safety: Why Does it Matter?

Psychological Safety

Enablers
- Role clarity
- Emotional Intelligence
- Learning orientation
- Leadership behaviors

Psychological Safety
- A shared belief that the team is safe for interpersonal risk taking

Outcomes
- Information sharing
- Job satisfaction
- Learning culture
- Engagement
- Performance

- Teams with with **high** psychological safety are **17% more productive,** and **33% more innovative**

- Investing in **people** and **building trust is fundamental.**

- **61% of employees withhold ideas** for fear of being wrong, or creating tension

- **Employees** in psychologically safe workplaces were **27% more likely to stay** with their company.

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Defining Psychological Safety

"

*Psychological Safety is a belief that one will **not be punished** or humiliated **for speaking up** with ideas, questions, concerns or mistakes, and that the team is **safe for interpersonal risk-taking**."*

Dr. Amy C. Edmondson
Professor of Leadership and Management
at Harvard Business School

Psychological Safety & The Human Factor

Psychological Safety 01

Shared belief it's ok to take risks, express ideas, concerns and admit mistakes.

Components 02

Physical
Cognitive
Emotional
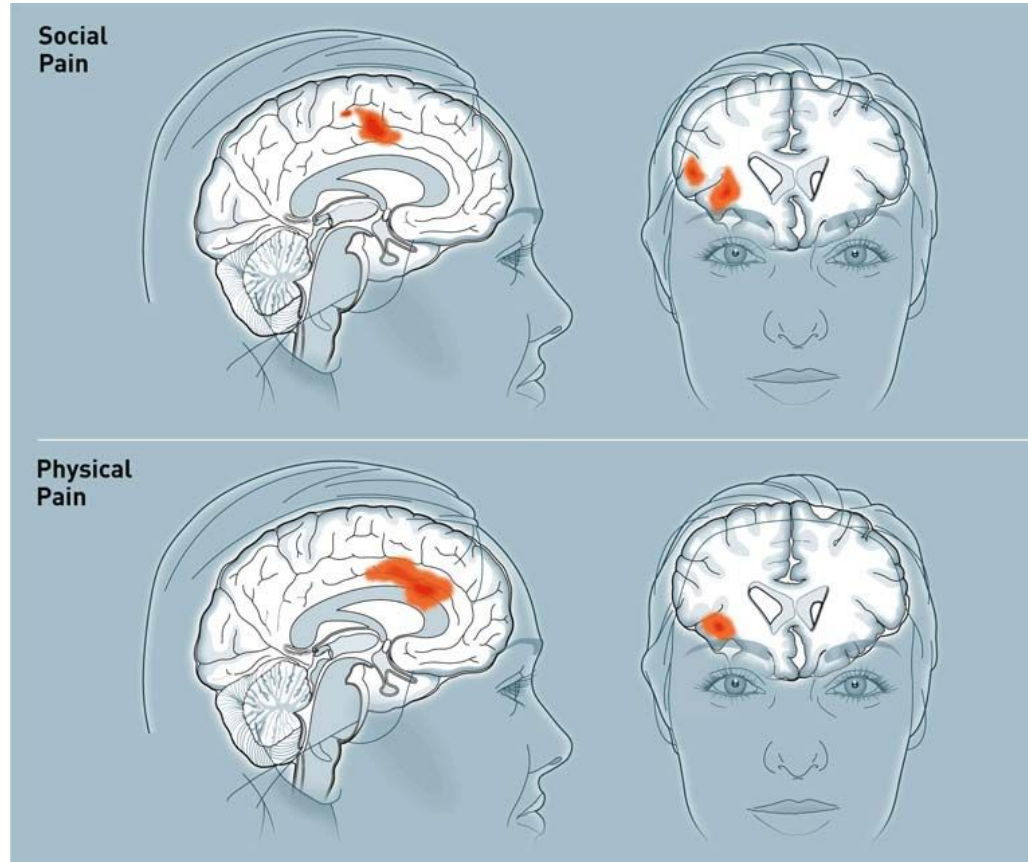Social
Cultural

03 **Components**

Dependability
Structure
Clarity
Meaning
Impact

04 **Human Factor**

Data-driven analysis understood by humans.

Self-actualization

Esteem

Love/Belonging

Safety

Physiological

Psychological Safety and the Brain

Project Aristotle: Team Dynamics

+200 interviews

180 teams

Composition / Attributes

"the whole is greater than the sum of its parts"

"Not surprisingly, **who is on a team matters less** than **how the team members interact,** structure their work, and view their contribution."

Maslow & Aristotle: The Needs of a Team

Impact - Team members think their work matters and creates change

Meaning - Work is personally important to team members

Structure & Clarity - The team has clear roles, plans and objectives

Dependability - Team members get things done, on time, and meet a high bar for excellence

Psychological Safety - Team members feel safe to take risks and be vulnerable in front of each other

The Power of the Human Factor

"I INTEND TO MAKE ALCOA THE SAFEST COMPANY IN AMERICA. I INTEND TO GO FOR ZERO INJURIES"

-Paul O'Neill to shareholders in 1987.

Cultivating a Psychological Safe Workplace

- **Lead by Example:** Vulnerability & Openness
- **Communication & Feedback:** Create safe space for all
- **Acknowledge Effort & Learning:** Prioritize a learning culture
- **Create Space for All Voices:** Actively engage diverse opinions
- **Build Community:** Invest in team building
- **Training & Awareness:** Provide ongoing opportunities

The Fear Conversation

FEAR	MITIGATION	TARGET NORM
	Psychological Safety	

- Start with 3 Columns
  - **Fear**
  - **Mitigation**
  - **Target Norm**
- Leader goes first to **model vulnerability**
- Team members contribute individual/team fears
- As a team, brainstorm mitigations for each **Fear**
- Next, define **Target Norm** for team's ideal state
- Openness and **actionable** outcomes are **key**

Psychological Safety in Cybersecurity Incident Response

→ **Equifax Breach (2017)**

→ **NotPetya Attack, Maersk (2017)**

→ **Solarwinds (2020)**

→ **Colonial Pipeline (2021)**

Audience Participation:
Psychological Safety Metrics

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- **Surveys** to measure **perceptions** of psychological safety
- Behavioral observation during **team interactions**
- Tracking incident reports and **response times**
- Monitoring **employee turnover**
- Correlate data with performance **metrics** to measure overall impact

Psychological Safety Checklist

- Do people feel **safe** taking **risks** on your team?

- Do people feel **comfortable** asking for **help**?

- Are all ideas and opinions **welcome**, even if they're **different**?

- Is it **okay** to make (and admit) **mistakes**?

- Do team members feel like they can **be themselves** at work?

Parting Thoughts

Does your incident response team have the psychological safety to effectively handle major cybersecurity incidents?

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- Google re:Work: Guides Understanding Team Effectiveness
- Workforce State of Mind Sixth Annual Workplace Mental Health Trends Report
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- Quality in Mental Healthcare: Measuring What Matters
- The Hidden Costs of Poor Employee Mental Health
- Radical Candor
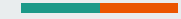
Thank you!

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