NEW INSIGHTS
IN HOP &
NEUROSCIENCE
Deciding Safely: How Humans Land at Decisions About Risk

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Risk-Taking is in Our Genes
Three Factors that Lead Us to Take Risk

• When we feel protected, we become more adventurous

• Hard-wired for optimism and confidence

• Rewarded risks are repeated
- The popularity of social media is based in our neuroscience.....

- The social brain in particular monitors how we are ‘getting along with our group’...

- Our social network is designed for us to survive and thrive....
The Neuroscience of Risk Processing

THREE PROCESSING CENTERS

Risk “Stimulus”
[Hazard, Task, or Situation]

Emotional Center

Cognitive Center

Social Center

Risk Decision Processing
Valuing Multiple Choices
Brain-Centric™ Layers of Protection

- Organizational Alignment on Risk
- Brain-Aligned Work Processes
- Individual and Team Reliability Capabilities
We Control Exposure by Focusing on Root Cause Factors

**Exposure Identification and Assessment**
Proactively identify and prioritize hazards and exposures for mitigation.

**Prevention Through Design**
Engineer out hazards and exposures; build in error forgiveness; implement brain aligned systems.

**Life-Saving Rules and Procedures**
Establish documented systems with high design integrity and behavior reliability.

**Pre-Task Safety Briefings, Training, Safe Work Practices**
Anticipate exposures, verify controls, test knowledge and confirm cultural expectations.

**Observation and Intervention, Stop-Work**
Hazards and exposures are recognized, addressed, and success reinforced.

**Build Individual and Team Capabilities**
Provide Brain-centric skills and methods to overcome internal wiring.

**Resiliency**
Prepare individuals and teams to reduce impact of incident.

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Interventions that embed individual & organizational capability

Aligned leadership with deep connection to the field

Empowered employees through on-going coaching

Safety & Human Performance becomes part of the DNA of the workforce

Measurable outcomes & continuous improvement

+ Prevent accidents to protect lives

+ Global partnering with all stakeholders

+ Aligned thought leader in safety
About Our Thought Leaders

David Musgrave
Vice President
David leads DEKRA’s Brain-Centric Reliability™ group with a focus on creating effective Human Performance Reliability through applied neuroscience. Getting work done ‘right the first time’ through a systemic approach includes designing and enhancing workplaces and processes, and developing human performance capabilities, all with the human brain in mind.

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Rajni Walia
Principal Consultant
Rajni Walia, PhD, is an expert in designing and enhancing workplaces and processes that are deeply embedded in applied neuroscience. For over a decade she has been leading performance management, organizational assessment and development, and human error reduction consultations with a focus on fostering strong performance reliability.

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