



neuro-link

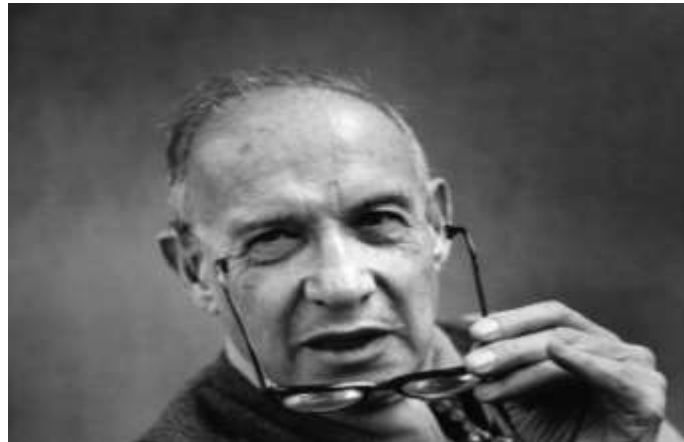
Why Neuroscience is Vital for  
a Global Perspective on Talent  
Development

- Dr. André Vermeulen

# 4<sup>th</sup> Industrial Revolution

**“Knowing your strengths and how you learn and think and acting on this knowledge is the key to performance.”**

**-Peter Drucker**



**“Knowing your unique neurological design and understanding the drivers that impact this, is the key to potential development and performance improvement.”**

**-Dr. André Vermeulen**



# WEF SKILLS PROJECTION FOR 2020

## IN 2020

1. Complex problem solving
2. Critical thinking
3. Creativity
4. People management
5. Co-ordinating with others
6. Emotional intelligence
7. Judgement and decision making
8. Service orientation
9. Negotiation
10. Cognitive flexibility



# TOP 10 CRITICAL SKILLS FOR TALENT DEVELOPMENT LEADERS

ATD

1. Leadership development
2. Coaching
3. Integrated talent management
4. Change leadership
5. Growth mindset
6. Performance improvement
7. Talent development of learning industry knowledge
8. Business acumen
9. Facilitating collaboration among employees
10. Knowledge management





- **Be adaptable;**
- **Apply new knowledge;**
- **Change behaviour.**



- **Think in new ways;**
- **Think "out of the box";**
- **Think smarter and faster.**

**Utilizes the whole brain in such a way that you can produce a better result than your competition**



# HUMANS

# AI

**Brain – pattern recognition & matching**

**Machine – linear processing**

**Creative**

**Linear – repetitive**

**Slow**

**Fast**

**Coaching**

**Instruction**

**Meaning**

**Information/content**

**Innovation**

**Improvisation**

**Experiential learning**

**Rote learning**

# HUMANS

# AI

**Why & how**

**What & how**

**Thinker**

**Expert**

**Solve complex problems**

**Identifies problems**

**Limited memory**

**Unlimited memory**

**Emotion**

**Reason**

**People industries**

**Machine industries**

**Dynamic content**

**Set content**



“A COMPANY’S ABILITY TO LEARN FASTER THAN  
IT’S COMPETITORS MAY BE IT’S ONLY SUSTAINABLE  
COMPETITIVE ADVANTAGE IN THE FUTURE”

- Arie de Geus, Shell Oil



# NEUROSCIENCE OF LEARNING

**This neuroscience of learning is an interdisciplinary field of study that examines how the brain learns, thinks and functions and provides evidence and solutions to how cognitive functions of the brain can be developed and optimized.**

**The main purpose of the neuroscience of learning is to provide predictive analyses of people's learning potential and offer learning solutions to optimize talent and improve performance and engagement in the workplace.**



# NEUROSCIENCE OF LEARNING

**The Science of Learning is an approach that recognizes the value and importance of cross-fertilization across traditional fields of study, drawing on many different methods and techniques to understand how learning occurs— with the ultimate goal of optimizing learning for all.**

**The Science of Learning is vital for HRD professionals to understand how they can optimize the most essential part of their human capital – the ability to learn! It focuses on how the learning and development (L&D) field can improve talent management, performance improvement, organizational learning, training, and instructional design.**



# WHY NEUROSCIENCE?

- **Brings to bear findings from hard sciences such as physiology, chemistry etc. that complements and validates behavioural sciences.**
- **Inclusive of culture, race, gender and generations. It should be the starting point for any global people development initiative.**
- **Most comprehensive framework for talent development yet.**
- **Provides better ROI than ever before.**
- **Separates fact from fiction.**



## **CURRENT**

## **FUTURE**

**Explanation & telling**

**Discovery**

**Expert-driven**

**Learner-driven**

**Teachers & instructions**

**Learning networks**

**Set content**

**Dynamic content**

**Receiving meaning**

**Creating meaning**

**Information silos**

**Connected information**

**Start with what we know**

**Start with what they know**

## **CURRENT**

## **FUTURE**

**Present-Demo-Practice-Feedback**

**Gather-Reflect-Create-Test**

**Evaluating testing**

**Active testing**

**Cookie – cutter chunks**

**Right-sized chunks**

**Information**

**Meaning**

**What**

**How**

**Content-centric**

**Learner-centric**

**Training and instruction**

**Learning**

# NEUROSCIENCE FUNDAMENTALS

- **Understand the biology of learning and how the brain processes information;**
- **How neuroplasticity promotes cognitive flexibility & learning;**
- **Accommodate learning cycles in workplace learning initiatives;**
- **Accommodate social and emotional learning;**
- **Develop complex problem solving and cognitive skills for 2020;**
- **Develop attention and memory;**
- **Design brain friendly work and learning environments;**
- **Understand the learning implications of different brain areas;**
- **How to prepare the brain for learning;**
- **How to optimize learning receptiveness of learners;**
  - **Drivers that optimize brain performance and improve brain health**
  - **Factors that impact neurological design (neuro-design)**

# DRIVERS THAT OPTIMIZE BRAIN PERFORMANCE

## Brain Fitness



Homolateral  
Not Brain Fit

Bilateral  
Brain Fit

## Stress



Not Coping

Coping

## Sleep



No Sufficient  
Sleep

Sufficient  
Sleep

## Movement



No Sufficient  
Movement

Sufficient  
Movement

## Attitude



Negative  
Attitude

Positive  
Attitude

## Food



Unhealthy  
Eating Habits

Healthy  
Eating Habits



# FACTORS THAT IMPACT PEOPLE'S UNIQUE NEURO-DESIGN AND LEARNING POTENTIAL

Relative Lateral Dominance



Left Brain Right Brain

Expressive/ Receptive



Expressive Front Brain Receptive Back Brain

Rational / Emotional

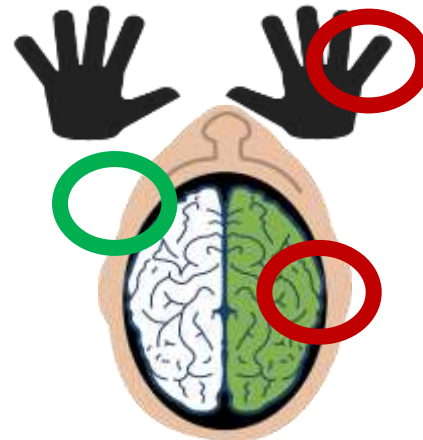


Rational Thinker Emotional Feeler

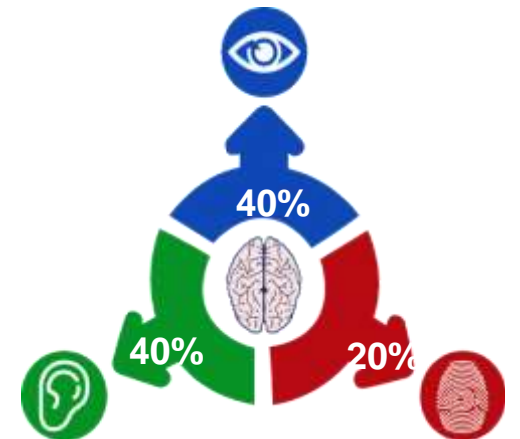
Four Quadrants



Brain & Sensory Dominance

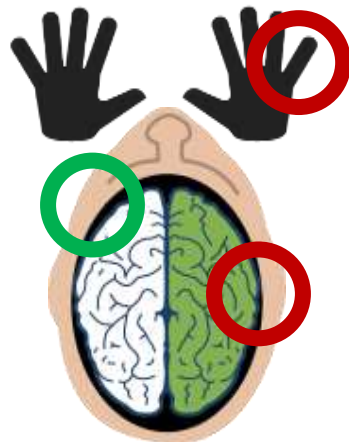


Sensory Preference



# NEUROSCIENCE FUNDAMENTALS

- Understand neurological dominance
- Identify neuro-design
- Align talent selection with neuro-design;
- Align neuro-design with job functions
- Consider how neuro-design influence risk for error.



You have a moderately right brain hemisphere preference

Right hand dominant/communication learner -50% preference

Right eye dominant/visual learner -10% preference

Left ear dominant, but balanced/auditory learner -40% preference

# JOURNEY TO PERFORMANCE

To understand the journey to performance optimization and mastery the following formula is relevant:

- Neuro-design (your potential) + no skills = potential (an indication of what can be)
- Neuro-design (your potential) + appropriate skills aligned with neuro-design = Good
- Neuro-design (your potential) + general skills = competence
- Neuro-design (potential) + well reinforced skills aligned with neuro-design = Talent
- Neuro-design (your potential) + great reinforcement of skills = Excellence & Mastery

**The journey to self-mastery and excellence starts with accurately identifying how you are talented – understanding your neuro-design and what it is you have potential for!**

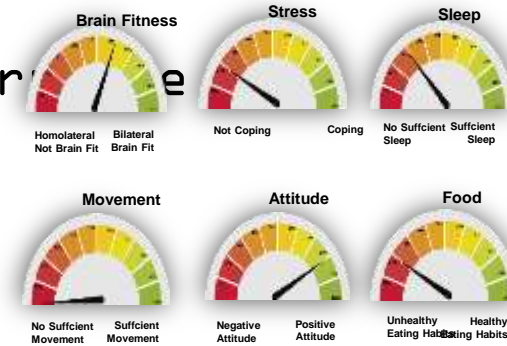


# THE LEARNING RECEPTIVENESS

The LRP™ Advanced+ is a **Brain Profile™** assessment for people to discover:

- 6 Drivers that influence their brain performance

1. Brain Fitness
2. Stress
3. Sleep
4. Movement
5. Attitude
6. Brain Food



- 7 Factors that influence your neurological design

1. Relative Lateral Dominance
2. Expressive / Receptiveness Preference
3. 4 Brain Quadrants
4. Rational / Emotional Preference
5. Information Processing Style
6. Sensory Preferences
7. 11 Intelligence Preferences



\* General considerations for further development