



## FREQUENTLY ASKED QUESTIONS ABOUT NEURO-AGILITY

### 1. What is neuro-agility?

Just like ballet dancers need the agility to move quickly and easy, executing their dancing skills with precision, today's workers need the neuro-agility to learn, think and draw conclusions fast and easy and be flexible in moving across ideas, experiences and understandings in such a way that they are able to maximise the learning value of any experience and apply that learning to perform well under first time, stressful conditions. Neuro-agility is about optimising the neurophysiological components that allows people to be fit and flexible to think, learn, create, solve problems and perform well, quickly and easy.

It enhances the degree to which people engage in agile learning. Neuro agility underpins the brain's ability to be in-flow, learning fast and effectively, committing as little human error as possible. It requires being able to concentrate at optimal level, while engaging the whole brain effortlessly during cognitive processes like learning and thinking. People who are highly neuro agile, have the flexibility to learn new skills, attitudes and behaviours fast and easy and unlearn old behaviour patterns quickly. To do this, they have to optimise the drivers that increase their brain performance and the neurophysiological components that influence their learning and thinking flexibility.

Neuro-agility is about the readiness of all the senses and brain regions to function as one integrated whole brain system, being receptive and responsive to receive and transmit bio-chemical impulses at optimum speed to all brain regions, establish new neural networks, retain, express, and apply information, change behaviour and perform according to potential under new and potentially stressful conditions.

The construct of neuro agility is situated within the broader domain of learning. Neuro agility is an essential component of the "ability to learn" because it focuses on the neurophysiological attributes of learning, thinking and cognitive processes. This multi-dimensional, neuroscience approach, compliments and strengthens the ability to learn and learning agility but is neither exhaustive nor exclusive to any of these concepts. The framework for neuro agility brings new constructs like neurological design and brain fitness into the arena of the meta-concept of "ability to learn". It also offers innovative perspectives on the neuroscience of performance improvement, talent development and reducing risk for human errors.

### 2. Why does Neuro-agility matter?

- It advances, anchors and validates the relevance, importance and impact of concepts like learning agility, leadership agility, emotional agility and organisational agility
- It offers an inclusive neuroscience approach requisite to all global learning practices;
- It offers a framework for understanding how uniquely people learn
- It offers innovative solutions to optimising and developing people's ability to learn
- It showcases a conceptual neurophysiological framework for determining human potential
- It offers a clear neurophysiological framework for why people learn fast or slow and how they can improve their cognitive flexibility and performance
- It complements and integrates easily with talent selection, talent development and

performance improvement practices

- It offers a higher return on investment on talent development and performance improvement initiatives when grounded in the hard sciences
- It separates facts from fiction, thereby solidifying learning and development practices
- It offers a new conceptual framework for reducing risk for human error
- It significantly contributes to an individual's self-awareness, growth, learning and development.

### 3. Who should be knowledgeable about neuro-agility and why?

#### **Professionals in the workplace, responsible for:**

- Creating a culture of learning – neuro-agility should be a core competence and the point of departure for creating a culture of learning
- Talent selection – learning agility has become a sought-after skill and a major criteria to select talent
- Talent development – the neurophysiological components offers a framework to identify potential
- Developing high performance teams – team leaders should understand their team's neuro-design and align member's natural strengths and preferences with roles and job functions
- Performance improvement – performance improvement cannot start at any other place than optimising brain performance
- Learning and development – to develop people's learning ability and learning agility starts by understanding the neurophysiological components that determine how people learn and think and optimising the drivers that improve brain performance and flexibility
- Workplace wellness – the framework for drivers that optimise brain performance are equally as important to maintaining brain health than it is to improve performance
- Workplace happiness – neuro-agility provides a framework that is fundamental to a holistic approach to maintaining workplace happiness
- Employee engagement – alignment between people's neuro-design and their job functions improves engagement significantly
- Health and safety – understanding people's unique neuro-design will indicate their potential risk for human error and offer solutions to reduce it.

#### **Schools and Education:**

- All teachers and lecturers responsible for educating others should be knowledgeable about and able to assess the drivers that optimise their student's brain performance and the neurophysiological components that influence how their students learn and think.

#### **Sport:**

- Sports coaches and athletes should understand how their neuro-design, and the drivers that optimise their brain performance, influence their performance.

#### **Public:**

- Any person who wants to develop themselves, improve their competitiveness and safeguard themselves against future job losses, should understand how neuro-agile they are and how they can improve it further.

#### 4. What is the value of Neuro-agility?

- It addresses the neurophysiological components of learning, thinking and cognitive processes responsible for learning quickly and easy
- It offers a scientific and comprehensive framework for the neurophysiological components that impact people's personality, how uniquely they learn and think, and their learning agility
- It makes an important link between the hard sciences (neuroscience) and the behavioural sciences, thereby validating the behavioural sciences more
- The neuroscience approach offers an inclusive approach to global people development and performance improvement practices as it is exclusive of factors like colour, race, age, culture, language or gender. A brain has no colour, gender, race or culture and neuroscience therefore focuses on what people have in common with each other – a brain!
- Neuro-agility offers a unique neuroscience framework, packaged in a predictive analysis called the Neuro Agility Profile™, for talent development and performance improvement professionals that deepens their understanding of people's learning potential, how to develop talent and optimise performance
- The NAP™ Group Profile Report provides companies and managers with vital management information about their workforce's brain fitness, brain health, neuro flexibility and neuro- agility to help them understand what talent is needed, identify talent, optimise performance, agility, wellness and reduce risk for error
- Because of its strong physiological basis, neuro-agility delivers business results as our case studies prove a strong return on investment for our clients
- It offers a new approach to reducing risk of human error and accidents
- It compliments other people development science like Neuro-linguistics Programming and Emotional Intelligence, and integrates easily with other sound learning technologies
- The neuroscience approach and frameworks help to separate facts from fiction, solidifying learning and talent development practices

#### 5. What does the Neuro-agility framework entail?

Neuro-agility consists of 2 dimensions. The first dimension consists of neurophysiological components that influence people's flexibility in thinking and learning. The second dimension consist of the drivers that optimise their brain performance, which will affect the speed and ease with which they learn as well as their risk for human error.

There is a compelling body of evidence that ties people's neurological design to components like relative lateral hemispheric dominance, expressive - receptive preferences, rational - emotional preferences, four figurative learning and thinking languages, brain and sensory information processing styles, sensory preferences and Intelligence preferences. These components will impact their personality as well as how uniquely they learn, think and process information, as well as their risk for error. When there is alignment between people's neurological design and the job functions they perform, they will experience increased work place engagement, well-being, happiness and performance.

To ensure people tap into all their cognitive resources to achieve top performance, they have to leverage all the drivers that optimise their brain's performance. Research provides strong evidence that ties improved performance to drivers like brain fitness, stress coping skills, sleep, movement / exercise, optimistic / growth mindset and nutrition.

The interplay between people's neurological design (referred to as neuro-design) and the drivers that optimize their brain performance, significantly influences the ease, speed, and flexibility with which people learn and their propensity for error.

## 6. What are the implications of neuro-agility?

Research suggests that many practices of old should be replaced with new practices, in order to be more effective and optimise the performance of people and businesses. The table below illustrates how current business approaches and practices will have to change:

MOVE FROM:	TO:
Behavioural approach	Neuroscience – behavioural approach
Best performer in previous job gets promotion or appointed	Most agile person gets promotion or appointment
Skills development focus	Brain fitness, flexibility & then skills development
Unstructured agility approach	Structured neuro-agility approach
Limited individual assistance to reducing risk for human error	Strong assistance to individuals to identify and minimize risk for error
Generalised approach to performance improvement & talent development – one size fits all	Personalised neuroscience approach to performance improvement & talent development - specific

## 7. What business needs does neuro-agility address?

### Workplace

- Talent selection
- Provide a predictive analysis for learning potential
- Enhance emotional intelligence
- Optimise performance improvement
- Talent development
- Leadership development
- Promote employee wellness
- Identify and minimise potential for human error
- Minimise fatigue
- Increase workplace flow
- Create workplace happiness

### Education

- Developing teachers and lectures through our assessments and learning solutions
- Learner/student development through our assessments and whole brain learning solutions
- Parent information sessions

### Sport

- Coaching support through individual athlete and team assessments
- Mental performance optimisation through our assessments and learning solutions

### Public

- Assessments for children, parents and families
- **Motivational talks**
- **Public seminars**
- **Free information sessions**

## **8. Why should business pay attention to neuro-agility?**

- It helps companies and individuals safeguard themselves against disruptive change
- It provides powerful insights to business about which prospective work applicants will be the best asset to the company
- The Neuro Agility Profile™ is a great tool to use to create individualised personal development programs
- The Neuro-Agility Profile™ is the most comprehensive tool to measure the brain-based aspects that have to be measured to increase the ease, speed and flexibility workers need to be agile
- The Neuro Agility Profile™ closes a gap on why individuals may error
- It is a powerful tool to help managers align who people are with what they do
- The NAP™ provides insight to managers about the unique contributions people can make in their team
- It provides better business results and return on investment than ever before
- It helps to separate facts from fiction in learning and people development practices
- It is inclusive of culture, race, gender and generations and therefore relevant to global people development initiatives
- It is the most comprehensive neuroscience frame work for performance optimization and talent development
- It improves performance, productivity, workplace engagement and happiness

## **9. How can I better understand neuro-agility?**

- Do the Neuro Agility Profile™ Practitioner Training Program offered by Full Potential Group

## **10. What is the scientific backing of neuro-agility?**

The science behind neuro-agility, has a sound physiological basis and we see the results at work every day. Behavioural sciences are defined by use of systematic, empirical and critical investigation and observation of behaviours. These behaviours must have a scientific or physiological basis for their occurrence, as no action or response can arise from a non-existing force. Using neuroscience, we are able to tie the behavioural sciences into neuroscience. Stated differently, we observe certain behaviours and would like to understand why these behaviours occur. This is where neuroscience comes into the equation - to understand the 'why' of the behaviours.

The neuroscience has become an interdisciplinary science that is there for people to gain better understanding of their behaviours. Throughout the 20th century, there was a lot of resistance to

entertaining brain/mind/behaviour patterns, but modern neuroscience, with its many well demonstrated neuroanatomical and neurochemical findings, can provide ways to evaluate these possibilities in more scientifically rigorous ways.

The unique Neuro Agility Profile™ assessment consist of many concepts that is fresh on the grid like the concepts of neurological design, neurological stress, dominance, neuro flexibility and neuro agility. Although these constructs can benefit from more research, but this does not mean that the science behind them is new. The new concepts are based on fresh insights born from the development needs of people and businesses in a changing world, but the science behind these concepts are sound. There is a compelling body of scientific research that confirms the validity of these concepts.

One of the debated components of neuro-agility is the issue of left - right brain hemisphere labels. Prevailing research in neuroscience avoids the definite left-right brain labels, as many have oversimplified the conclusions of Nobel Prize Laureate Roger Sperry's discovery of the differences of left- and right brain hemisphere processing and learning functions. The problem is not that the research is incorrect, rather than misinterpretation of the implications of the research. Accurate interpretation requires a multi-disciplinary understanding of concepts like the influence of dominance and mid-line crossing on the functioning of the hemispheres, as neuroscience of learning is an interdisciplinary science. Few authorities offer this approach as most have very specific areas of expertise. Furthermore, many people are using incorrect verbal explanations and terminology that creates disparity between the research and implications. Scientists therefore now use the term "relative lateralisation", as much of Roger Sperry's original work remains valid today.

It can still safely be said that the left hemisphere processes information in an analytical, sequential way, while the right hemisphere processes information in a random holistic way. Although we are using both hemispheres of the brain most of the time, it can also be said with impunity that at any moment, there will be more activity in one hemisphere than the other. It can also not be argued that some people starts solving problems by following a more logical, analytical approach and others follow a more conceptual, holistic and creative approach. All people think, learn, create and solve problems, but in different ways, depending on our preferences.

One will find many research papers concluding that there is evidence for left and right hemispheric preferences. There will also always be studies that do not achieve significant findings. What one should keep in mind, is that if a few research papers claim something is not true for the particular outcomes that they were trying to measure, it does not necessarily mean that the main concept is unfounded. We need to keep in mind what was measured, how was it measured, how big was their sample, what was their sample quantity, what methods did they use and ultimately, what were the defined objectives and limitations of the research conducted. All these factors have an influence on the outcomes achieved by research.

When we talk about left and right hemispheric preferences, we do not define it as one hemisphere overpowering the other, but as one hemisphere taking the lead and the other following passively. This does not mean that we only use the "dominant hemisphere" and the other hemisphere is not working. All people use both hemispheres most of the time, making us whole brained people. There will however, always be a hemisphere actively leading in the task at hand and one passively following. For example, if asked about your hand dominance,

you would either respond “right hand dominant or left hand dominant”. When someone is right hand dominant, it does not mean that their left hand cannot be used. However, the right hand feels more natural to use than the left hand, meaning that there is one actively leading and another passively following. The same would apply to the eyes, ears and brain hemispheres.

#### **11. What are the neural substrates of neuro-agility?**

A concept like neuro-agility does not have a single neuronal substrate. Neuro-agility is a conglomeration of many factors at play that need to be maintained and optimised. Neuro-agility consist of a framework of drivers that optimise people’s brain performance and the neurophysiological components that influence how flexible they are to access any mode of learning, thinking or processing information, that a specific situation may require of them. Each of these neurophysiological components and drivers have neural substrates which will take many hours of neurophysiology training to explain.

#### **12. How can I become a neuro-agility expert?**

There are no quick fixes to neuroscience or understanding neuroscience related concepts. It requires many hours of intense training. Should one really be interested in becoming an expert in neuro-agility, it is highly recommended to take courses like the Neuro Agility Profile™ Practitioner Training that Full Potential Group offer.

#### **13. What is Full Potential Group’s position with regards to left-right brain hemisphere claims?**

Prevailing research in neuroscience avoids the definite left-right brain labels as many have oversimplified the conclusions of Nobel Prize Laureate Roger Sperry’s discovery of the differences of left- and right brain hemisphere functions, which is unwarranted by the literature. Scientists now use the term “relative lateralization”, as much of Roger Sperry’s original work remains valid today. It can still safely be said that the left hemisphere processes information in an analytical, sequential way, while the right hemisphere processes information in a random holistic way. Although we are using both hemispheres of the brain most of the time, it can also be said with impunity that at any moment, there will be more activity in one hemisphere than the other. It can also not be argued that some people starts solving problems by following an analytical approach and others follow a conceptual, holistic and creative approach. All people think, learn, create and solve problems, but in different ways, depending on our preferences.

#### **14. What is Full Potential Group’s position on “switching off” of certain brain regions?**

We do not state that stress will totally “switch off” the passively following hemisphere, as it is still able to drive biological functions associated with its regions. We define the “switching off” process as the less preferred hemisphere not being able to process information as effectively and accurately as it would under less stressful conditions, once again indicating that the drivers that optimise brain performance have a sound scientific basis which then stems into a behavioural response.

The result of disruptive change is that people are constantly experiencing feelings of burn-out, stress and fatigue. Short bursts of stress are not the problem. Continued stress and fatigue however, are the brain's greatest enemies. During stress, the brain releases cortical inhibitors (chemical) that decrease or inhibit electro-chemical transmission in certain brain regions. Anything that causes to slow down the speed of electrical transmission between brain cells, is referred to as neurological stress. It causes the non-dominant brain regions to "switch off", leaving the dominant brain regions to carry on with its primary functions. Stress thus limits people's performance, learning effectiveness, information processing abilities, and overall learning agility, causing them to become either too logical (more left hemisphere) or too creative (more right hemisphere) oriented than the whole brain person they can and should be.

When people experience continued stress or fatigue (mainly due to lack of rest and sleep), their dominant senses opposite the dominant hemisphere will be adept at processing information. If their dominant senses are on the same side as the dominant brain hemisphere, their information processing ability may be inhibited, and sensory transmission may become limited during stress or fatigue causing neurological hindrances that may increase people's risk for error.

#### **15. What is FPG's view on dominance?**

Our human species have been designed with 2 brain hemispheres, 2 eyes, 2 ears and 2 hands, with the purpose of using both. We are all whole brained most of the time. Even if we are whole brained, MRI and PET scans prove that at a given time, there will be more activity in one hemisphere over the other. This visually illustrates what dominance is all about. All people have a dominant brain hemisphere, eye, ear, and hand. In this context, the definition for dominance is it is the hemisphere, eye, ear, or hand that leads, while the other follows more passively.

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The eyes are the only part of the brain that is visible. It illustrates how the brain works. To illustrate dominance, one only must look at how the eyes function when processing information. If a person looks through a rolled-up paper at an object with both eyes, one eye leads (focuses), while the other follows. The dominant eye will be aligned with the rolled-up paper. This clearly illustrates that although the person looks at the object with both eyes, the dominant eye will actively process information while the non-dominant eye follows more passively.

Neurological dominance is a natural part of our design. All people have a unique genetic

coding which will influence our predisposition towards which hemispheres, and senses will lead (dominate) when processing information. When one person speaks to another, but the other person cannot hear clearly, it may be that the person who cannot hear clearly, may turn one ear towards the other person. This response indicates an auditory dominance response. It illustrates that although we have two brain hemispheres, eyes, ears, and hands, and use both to process information, there will always be a dominant brain hemisphere, eye, ear, or hand that takes the lead to process information actively, while the other one follows, processing information more passively.

Just like the muscles you use must become stronger, so does the brain hemisphere and senses that lead when we process information and learn, become dominant. As people learn and develop, we strengthen neural networks that connect different brain regions and the senses we prefer to use, making certain parts lead stronger and others follow. As a result, we develop physiological preferences for using some brain hemispheres, brain regions and senses over others. These neural networks make it easier to think, learn and create in ways that are consistent in our preferences, hence the reason all people think, learn, and act in different ways.

### **You can experience Neuro-agility in the following ways:**

- An individual and/or team profile and debrief (webinar or face to face)
- Neuro-agility masterclasses
- Neuro-agility licensed practitioner accreditation
- Full Neuro-agility wellbeing programme

**For more information, please contact us on:**

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