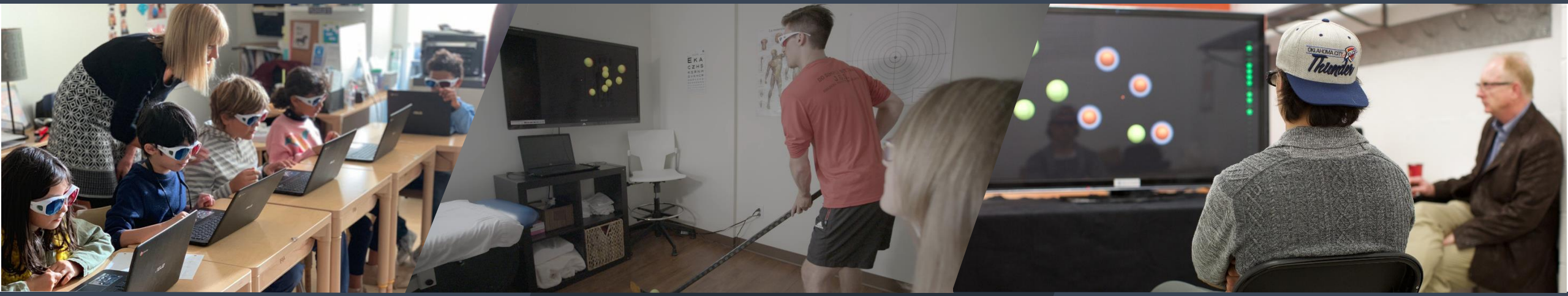

neurotracker
Unlocking Mental Performance

Power of NeuroTracker

What is NeuroTracker? Technology to measure and enhance awareness and focus.

How does it work? NeuroTracker uses a 3D visual exercise that has been shown to improve high-level cognitive functions such as working memory, attention and mental processing speed.



Shift Towards **Complete Solutions**

Human Performance Factors

Individuals across domains are recognizing that human performance doesn't rely on a single factor. Consequently, a growing number of people worldwide are seeking solutions that address different facets of performance.

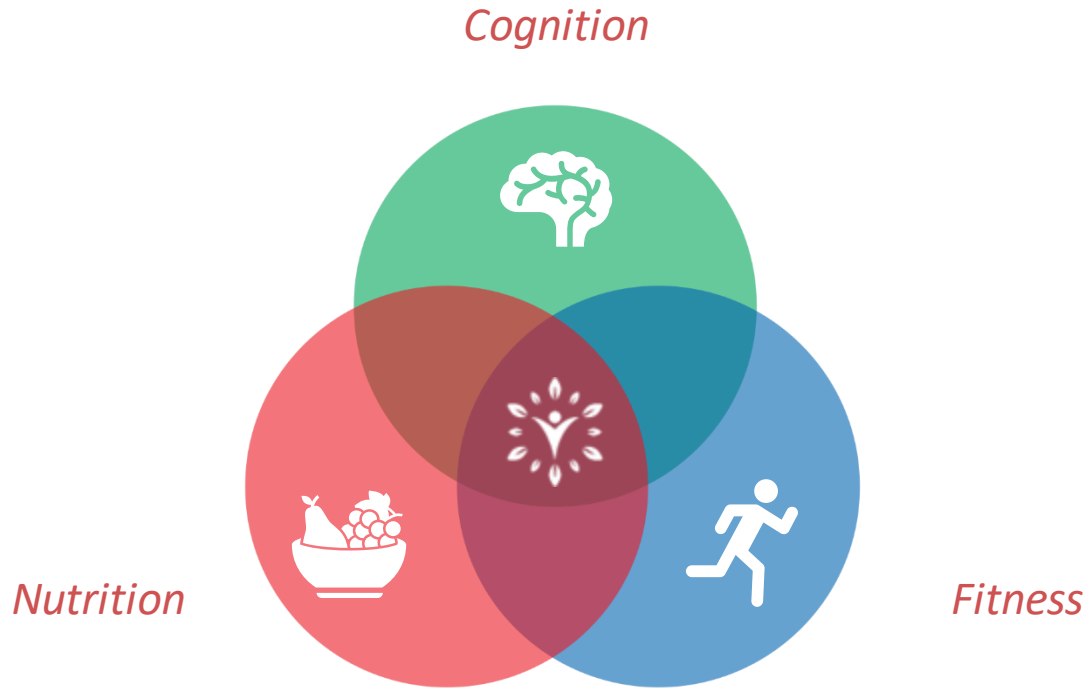
Strength of NeuroTracker position

Efficiency: Short 6-minute exercise that enhances key mental skills that are used on a daily basis.

Reach: Training applicable to nearly all populations; from elite performance, to young students, to active agers, to rehabilitation patients and more.

Transfer: Demonstrated real-world transfer, with 40+ supporting research studies across a several domains.

Flexibility: The technology can be used on a stand-alone basis or alongside complementary interventions or dual-tasks.



Our ***Scorecard***

Global Leader: NeuroTracker is the most scientifically validated neuro-technology to improve elite human performance.

20+ Years of R&D: NeuroTracker emerged from over two decades of neuroscience research through the Faubert Lab at the University of Montreal.

Patent Frontrunner: NeuroTracker has seven families of patents across all elements of its science and technology, positioning it the largest patent holder in the cognitive training space.

Building Champions: NeuroTracker is part of the training of several championship winners

5M+ SESSIONS PER YEAR

500K+ USERS GLOBALLY

1,000+ WORLDWIDE PARTNERS

40+ PEER REVIEWED PAPERS

40+ ON-GOING RESEARCH PROJECTS

Clients & Partners

Canadian Forces

The NeuroTracker ***Exercise***

NeuroTracker involves tracking multiple objects, as they move in 3D space at increasing speeds.

TARGET

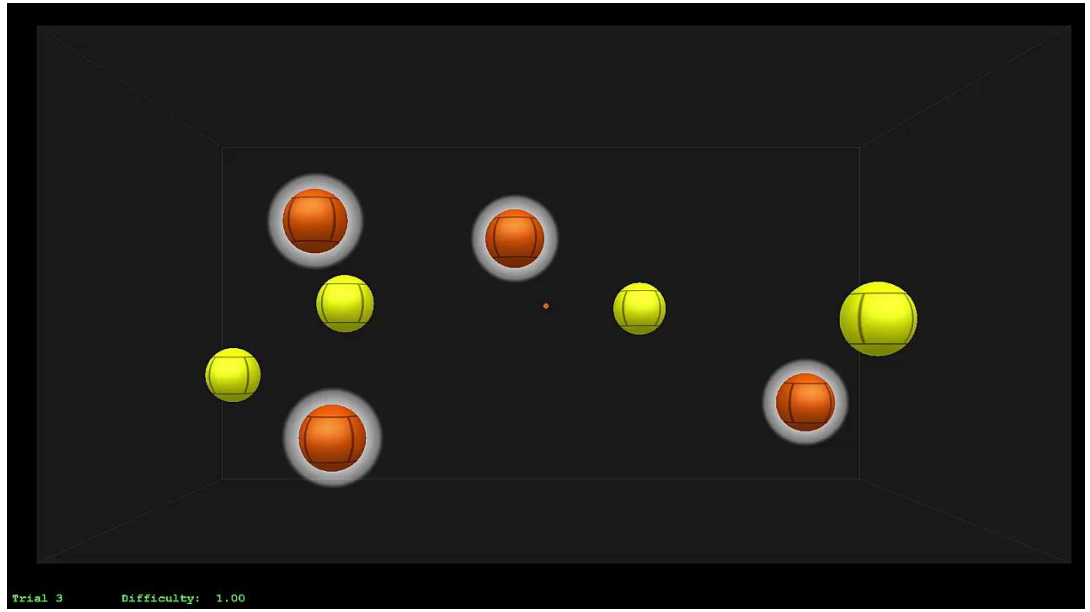
TRACK

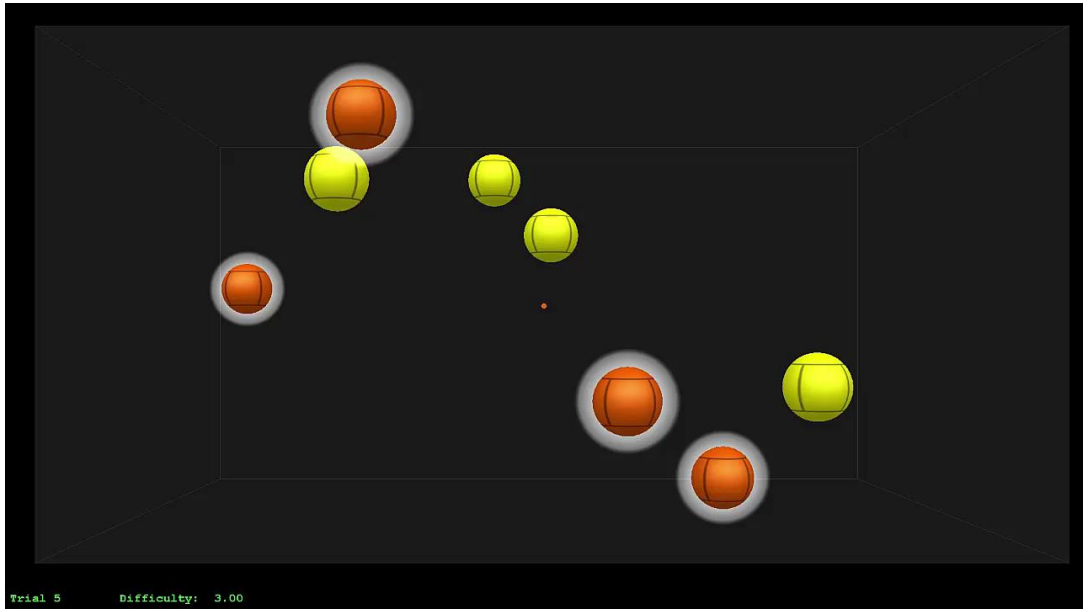
IDENTIFY

Training **Efficacy**

Fast Improvement

Research has shown that as little as **12 NeuroTracker Sessions**, just **72 minutes** of training time, produces powerful improvement in human cognitive function

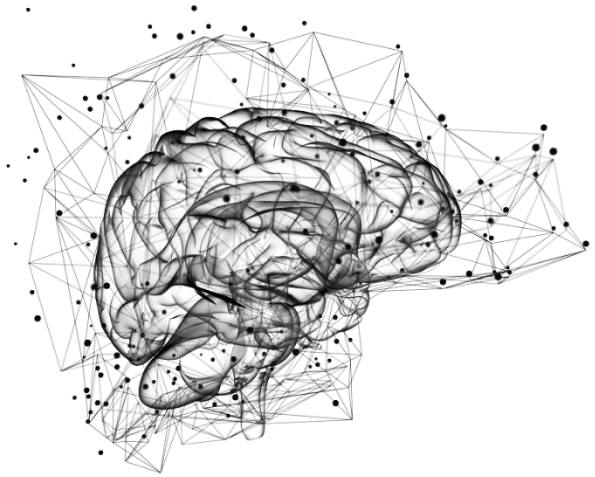




Scientific Research that ***Enhances Elite Performance***

Scientifically-proven enhancements in:

1. Attention
2. Working memory
3. Executive function
4. Processing speed
5. Situational awareness



… resulting in real-life improvements:

- Assess and read surroundings faster
- More accurate determination of visual cues
- Anticipate & predict next moves
- Build cognitive resiliency
- Perform under pressure

NeuroTracker performs in **mission critical, high-stakes, fast-paced environments**
… for data-rich and faster-decision-making

Scientific Validation *across various industries applications*

Unique indicator of elite performance (2013)

- Landmark study reveals NeuroTracker can predict elite learning capabilities of high performers.

Predictor of NBA performance (2014)

- A single NeuroTracker session demonstrated predictive capacity of Assist-to-turnover ratio and Turnover statistics across an NBA season

Improves decision-making skills in soccer players (2015)

- 30 sessions of NeuroTracker training resulted in a 15% improvement in passing accuracy & decision-making in varsity soccer athletes.

NeuroTracker enhances cognitive function (2016)

- 3 hours of distributed NeuroTracker training robustly transfers to high-level cognitive gains, with boosts in brainwave activity.

Improves working memory in military (2016)

- Short NeuroTracker intervention results in 15% improvement in working memory capacity in a military sample.

Assessment of cognitive load in jet pilots (2017/18)

- NeuroTracker measures reveal the cognitive demands of simulated and live flight performance.

Role in mental resistance to fatigue (2018)

- NeuroTracker training improves mental resilience to physical fatigue in rugby athletes.

Linked to fluid reasoning intelligence (2018)

- NeuroTracker performance is positively associated with fluid reasoning intelligence, especially in conditions of high cognitive load.

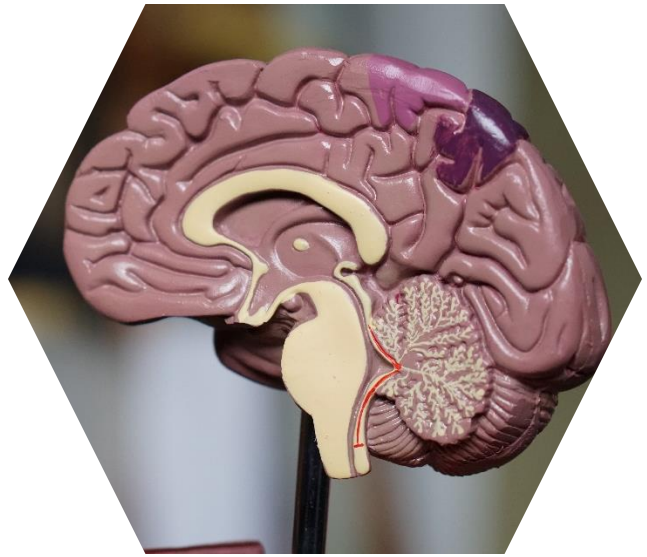
Training ***Applications***

Enhancing Performance

NeuroTracker efficiently improves awareness and focus. Through short, 6-minute training sessions, individuals will gain an improved ability to anticipate complex scenes, process information and deal with unpredictability more effectively.

Profiling & Assessment

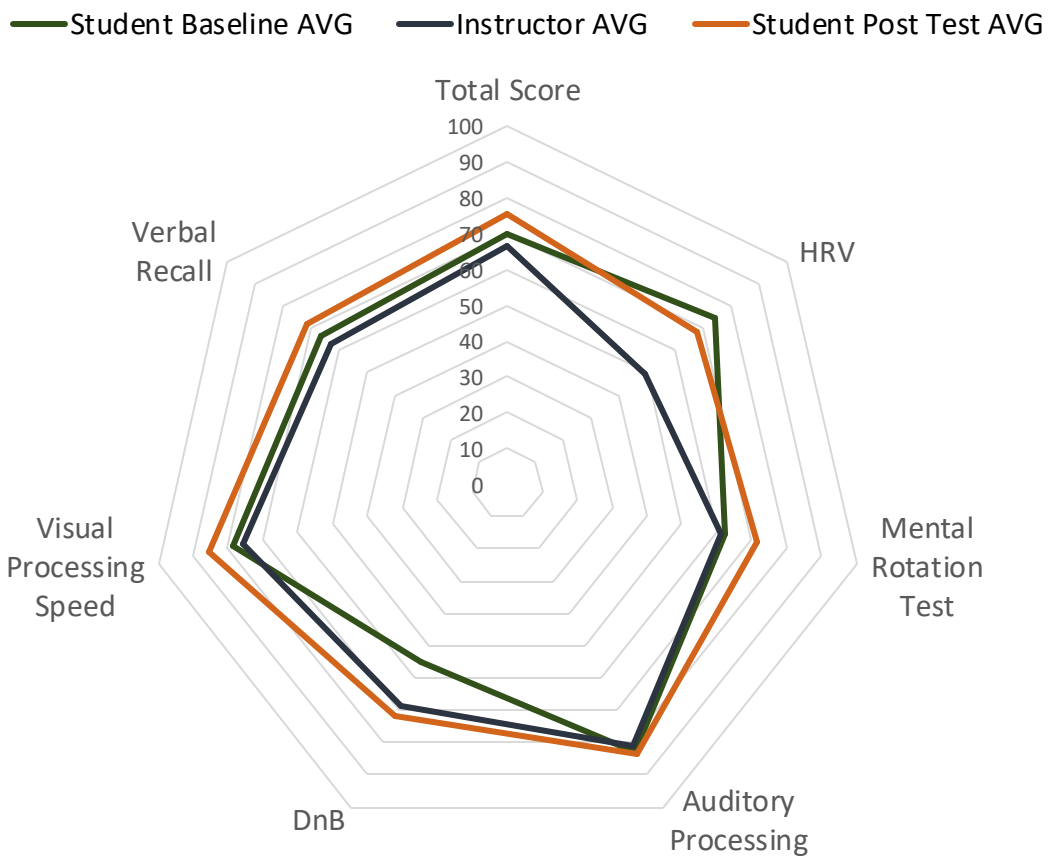
NeuroTracker is a sensitive cognitive measure that has been linked to elite performance. By testing individuals on NeuroTracker, valuable insights can be gained into the mental capabilities of each person.



Assisting Recovery

Following an injury, individuals can struggle to regain their form and adapt to the normal life. As a non-invasive exercise, NeuroTracker allows people to train throughout the recovery period in order to recover fully.

Use Case: US Air Force



US Air force – AFWERX Open Challenge

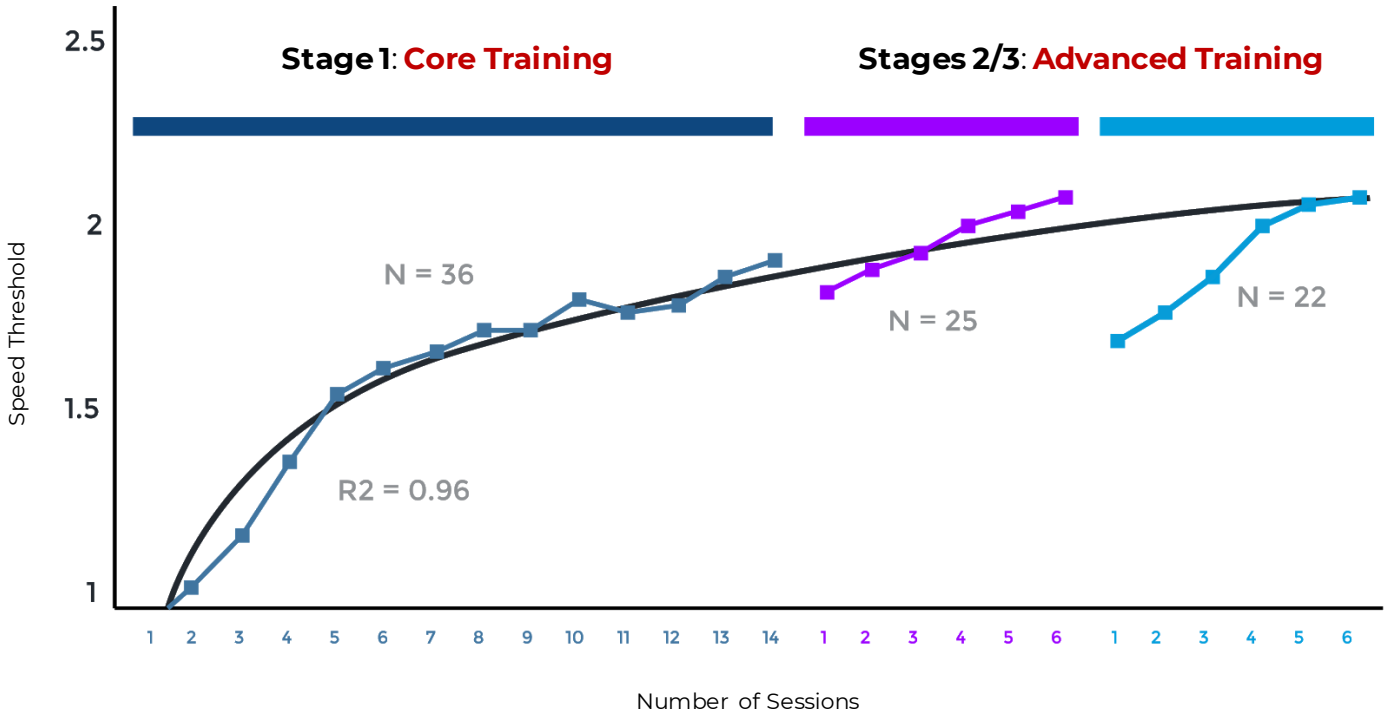
- NeuroTracker one of 150 Submissions
- One of five finalists to win a contract
- Only winner implemented into **Pilot Training Next** program
- Granted contract for US Army **Aviator Training Next** program

AFWERX

Results at 4 Weeks (6 minutes of training per day)

- DnB (Working Memory): **36% improvement**
- Mental Rotation Test (Spatial Awareness): **20% improvement**
- Visual Processing Speed: **12% improvement**
- Long-term Verbal Recall: **9% improvement**
- Auditory Processing (Digit Span): **4% improvement**

Increasing complexity & contextualizing to your needs



Stage 1: Core Training

Initial training consists of the NeuroTracker exercise in a context free environment.

Stages 2/3: Advanced Training

Advanced training adds dual-tasks to the training, forcing the user to complete a secondary task while doing NeuroTracker Training.

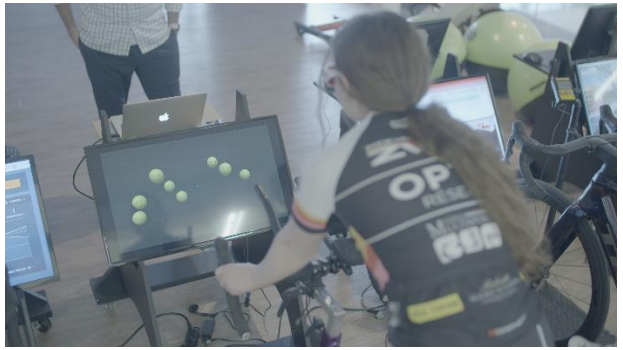
Integrated: **video**, **imagery** or **audio**

Dual-Task Options

Simple to complex principle

Physical General

Incorporating physical exercises that range from balance to strength training.



Motor-Skills Specific

Incorporating sport or job specific exercises that require precise movements.

Combined Neuro-physical

Incorporating decision making scenarios that require a physical response.

Tactical Mental Specific

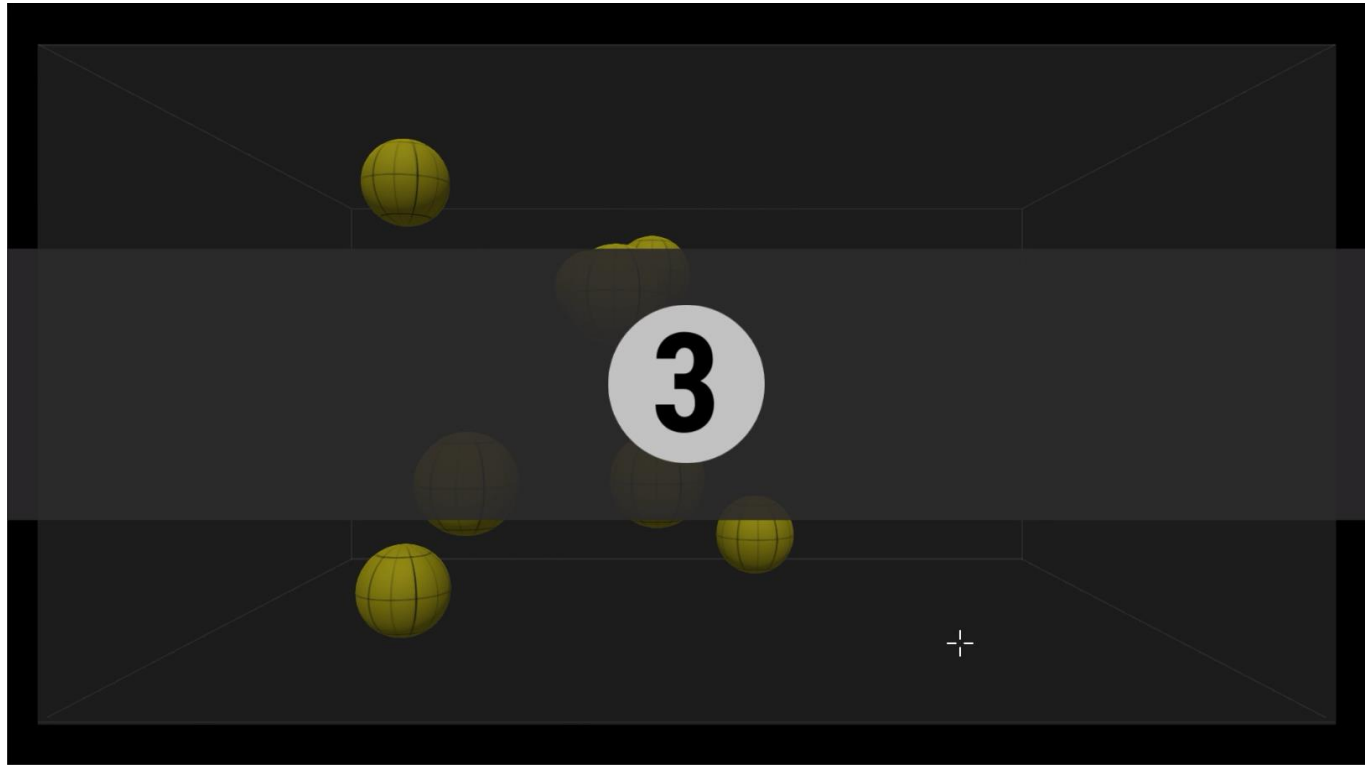
Incorporating general or specific decision making scenarios into the training.

Accelerate Mastery: Tactical Training

NeuroTracker Tactical training incorporates **imagery**, **video** or **audio** to increase the mastery of specific performance objectives.

Example: US Army ATN: Visual - Analyze, Interpret, Respond

- Imagery can be customized for any course or training curriculum topics/areas of importance
- Benefits include enhanced learning and performance outcomes
- Each organization can provide customized content for individualized and tailored programs



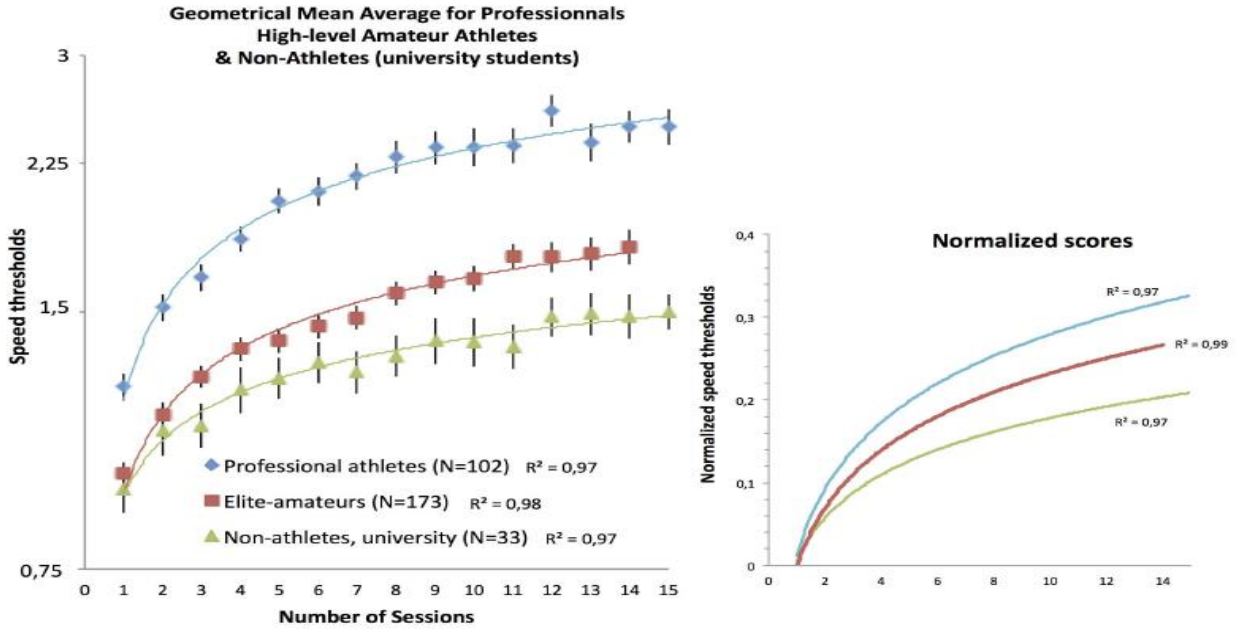
NeuroTracker Applications

*Profiling & **Assessment***

Revealing Potential:

- Identify inherent cognitive abilities
- Assess performance readiness
- Optimize career path decisions
- Efficiently allocate training resources

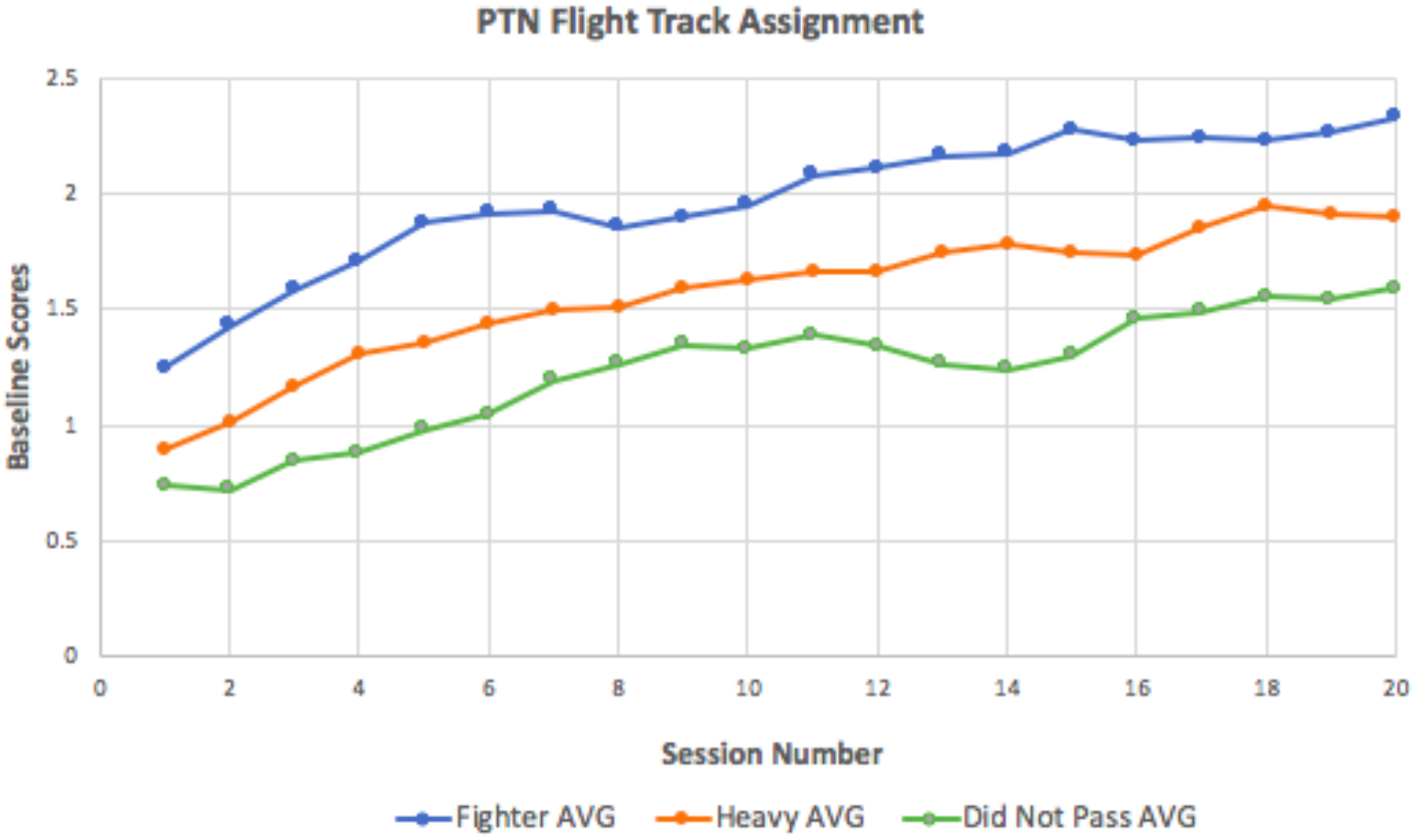
Combine **physiological measures** with a **cognitive measure**, to get a full picture of an individual's status



NeuroTracker Research

Researchers compared the cognitive performances of professional athletes, NCAA athletes and university students.

Applied Biometrics Analytics at PTN2



- NeuroTracker demonstrated to be a potentially strong predictor of Student Pilot Performance
- Discernable differences are detectable after only three NT Sessions (Baselines take 20 minutes)
- Trends are consistent throughout the consolidation phase of training (first 20 sessions)
- Additional data required for statistically valid sample

NeuroTracker Applications

Tool for ***Rehabilitation***

Research shows that NeuroTracker could serve as an inexpensive and easily accessible **marker of recovery** following concussion and may also be beneficial in **stimulating recovery.**

University of Victoria

McGill UNIVERSITY

Université de Montréal

Tangible ***Benefits***

- Accurate return to play indicator
- Stimulate recovery
- Keeps an objective baseline
- Complements existing modalities

NeuroTrackerX & Brain Trainers

	NeuroTrackerX	Brain Training Programs
Populations	**Broad:** applicable to diverse populations, including children with learning disabilities, professional athletes, older adults, patients etc.	**Focused:** generally tailored to active aging market
Task Complexity	**Less is More**: reliable, simple metric that can be consistently applied across populations	**High**: many exercises, each with their own set of instructions and rules
Transfer Effects	**Far and wide:** dynamic task that reflects "real-world" integration of cognitive functions. Near and far transfer to real-world abilities well established	**Near and narrow:** isolated tasks focus on specific cognitive functions but fail to integrate as a whole
Intervention Time	**Short:** 2-3 hours of distributed training 12 minutes per week (2 sessions)	**Long:** average of 30-50+ hours BrainHQ: 90 minutes per week (recommended)
Practice Effects	**Minimal:** speed threshold score shown to have negligible effects from practice	**Ambiguous**: difficult to distinguish what degree of improved scores are related to strategy/practice
Accessibility	Computers or tablets (Windows, Android*, iOS**)	Computers, tablets, smartphones


Thank You