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Upbeat™: Enhancing Teams Through the Neuroscience of Drumming



YOUR EMPOWERING SOLUTIONS

Developing Leaders & Company Culture for the Global Arena

The Neuroscience of Drumming

Improves Focus and Concentration

- Music with a strong beat stimulates the brain and ultimately causes brainwaves to resonate in time with the rhythm, research by Harold Russell, a clinical psychologist at the University of Texas has shown. Slow beats encourage the slow brainwaves that are associated with hypnotic or meditative states. Faster beats encourage more alert and concentrated thinking. "For most of us, the brain is locked into a particular level of functioning," Russel said. "If we ultimately speed up or slow down the brainwave activity, then it becomes much easier for the brain to shift its speed as needed."

Lowers Stress

- Barry Quinn, Ph.D., a clinical psychologist who runs a neurobiofeedback clinic for stress management, has been working with a variety of techniques that affect human brainwaves. His recent studies have shown that drumming for brief periods can alter brainwave patterns, dramatically reducing stress. During periods of normal alert activity our brainwaves operate at a level of a 'Beta' rhythm, which is 14–20+ cycles per second. When people relax, their brainwaves slow to an 'Alpha' rhythm, which is 7–14 cycles per second. The Alpha state is connected with a general feeling of relaxation and well-being. But Dr. Quinn estimates that as much as 30–40% of the population is unable to regularly achieve Alpha. Dr. Quinn stated that the results of 30–40 minutes of drumming for the highest-stress clients were "by far the most amazing results I've encountered thus far in my research."

The Neuroscience of Drumming

Produces Energy – “drummer’s high” (an endorphin rush)

- Studies by University of Oxford psychologist Robin Dunbar and his colleagues found that drumming increases positive emotions and provides the emotional and physical benefits collectively known as “drummer's high,” an endorphin rush that can only be stimulated by playing drums, not simply listening to them. “We conclude that it is the active performance of drums that generates the endorphin high, not the music itself,” the researchers write in the online journal *Evolutionary Psychology*. This endorphin rush produces energy to sustain flow and peak performance at a higher level.

Enhances Team Work

- The same studies by University of Oxford psychologist Robin Dunbar and his colleagues also found that when drummers play together, the endorphin-filled act of drumming triggers cooperation and community-building behaviour that leads people to work together in a more collaborative fashion.

Taps into What it Means to be Human

- Researchers at Harvard University found that drummers harness a different sort of internal clock that moves in waves, rather than linearly as a mechanical clock does. They match an innate rhythm that has been found in human brainwaves, heart rates during sleep and auditory nerve firings. When a human drummer plays, he or she finds a human rhythm. As a result, drummers are tapped into a fundamental undercurrent of what it means to be human, people around whom bands and communities form.

The Neuroscience of Drumming

Improves Mental Balance and Whole Brain Thinking

- Drumming, with a fast paced 4–7 beats per second rhythm, has the ability to profoundly alter brain states. Ancient shamans knew this, and now a plethora of science backs it up. The two hemispheres of the human brain often operate at different levels and at different rates. The results of a study by Dr. Lara Schlaffke from the Bergmannsheil University in Bochum found that drummers have fewer, but thicker fibers in the main connecting tract between the two halves of the brain, which allow for a faster exchange of information between the two halves. In addition, their motor brain areas are organized more efficiently. The steady beat of drumming is a powerful tool for brain health because by the very nature of its constant rhythm, using both hands, it permeates the entire brain, bringing both hemispheres into rhythmic balance. This is profound, because that balance is exceedingly hard to come by in modern day life. In his book, *Shamanism: The Neural Ecology of Consciousness and Healing*, Michael Winkelman explains how “drumming synchronizes the frontal and lower areas of the brain, integrating nonverbal information from lower brain structures into the frontal cortex, producing feelings of insight, understanding, integration, certainty, conviction, and truth, which surpass ordinary understandings and tend to persist long after the experience.”

Develops Problem-Solving Capacity

- A study from the Karolinska Institutet in Stockholm found a link between intelligence, good timing and the part of the brain used for problem-solving. Researchers had drummers play a variety of different beats and then tasked them with a simple 60-problem intelligence test. The drummers who scored the highest were also better able to keep a steady beat. According to the authors, the anterior section of the corpus callosum connects brain regions, such as “the dorsolateral prefrontal cortex [which is] related to decision-making during voluntary movement, as well as different areas related to motor planning and execution.” As a result, drumming increases our capacity to solve problems.

The Neuroscience of Drumming

Enhances Ability to Perceive Patterns in the World

- Neuroscientist David Eagleman, a rennaissance researcher The New Yorker calls "a man obsessed with time," found this out in an experiment he conducted with various drummers at Brian Eno's studio. It was Eno who theorized that drummers have a unique mental makeup, and it turns out Eno was right: drummers do have different brains from the rest. Eagleman's test showed "a huge statistical difference between the drummers' timing and that of test subjects." Says Eagleman, "Their ability to keep time gives them an intuitive understanding of the rhythmic patterns they perceive all around them, which enhances their ability to perceive patterns in the world."

The Program

Overview - 5 min

- Using the art of playing drums to enhance focus, energy, team work and problem-solving through the neuroscience of drumming. Specific drumming exercises and patterns have been written for this to target specific functions of the brain.

Step 1: Single Beat - Develop Focus and Concentration - 15 min

- Warm up exercises to develop focus and concentration through slow-fast-slow progression of each beat. Develop energy through this process.

Step 2: Single Beat - Develop Attentional Deployment, Listening Skills and Other Awareness - 15 min

- Single beat exercises to develop attentional deployment, listening skills and other awareness by guiding participants to consciously shift their focus of listening as they play together.

Step 3: Split Beat - Develop Balance and Team Alignment - 20 min

- Split beat patterns to develop balance and team alignment exploring how the different pieces fit together as a cohesive whole.

Step 4: Split Beat - Develop Pattern Recognition - 20 min

- Split beat patterns to develop pattern recognition by listening for the patterns within patterns.

Debrief: Key Points - 15 min

- Focus and concentration for *flow*.
- Attentional deployment, listening and other awareness for relationship building.
- Balance and team alignment for unity.
- Pattern recognition for problem-solving.

Apply to Self

- How do you feel? What did you learn from this? How can you apply it to your team?

Grant Bosnick Managing Director and Executive Coach

Focused on driving organizational change and performance improvement, for 22 years Grant Bosnick has partnered with clients to design and deliver solutions, aligned with corporate strategy and organizational processes, that transform leaders' behaviour, to become more global minded, lead others, manage change, innovate and perform at a higher level. He started his career as a Senior Manager in the entertainment, professional fund-raising, and natural gas industries, leading diverse multicultural teams. With a background in psychology and NeuroLeadership, moreover, he engages leaders to explore multiple perspectives, understand themselves deeply, drive change and transform behaviour – to foster & develop global leaders for a rapidly changing and complex environment. He works with Fortune 500 and FTSE 100 companies in the tech, financial services, retail, advertising, pharmaceutical and chemical industries, among others.



Using assessments and research-based content, Grant works with mid-level and senior leaders in the areas of communication, executive presence, authentic leadership, team alignment, people leadership, trust building, interpersonal relationships, collaboration, influencing, change management, coaching, mindfulness, diversity & inclusion, creativity, storytelling and personal effectiveness. He is a well sought after keynote speaker for offsites, annual conventions and executive conferences, for hundreds of people, on such topics as Inspire, Motivate and Change. He has lived in Asia Pacific for 22 years; and has worked all across Asia Pacific and the Middle East. And has delivered virtual leadership training sessions with over 30 countries on 5 continents.

Grant sees L&D and Coaching as a helping process focused specifically on improving work performance, and is a link between an individual's development needs and the organization's strategic goals. And by providing behavioural know-how & tips to enhance improved performance, participants' and Coachees' change in behaviour will not only achieve their own objectives, it will also help motivate their colleagues & subordinates to cooperate in harmony for positive team building towards common goals.

He is also an accomplished drummer, music producer and director. Having played drums and percussion for over 35 years, he has toured North America, recorded 13 albums and produced several live multicultural interdisciplinary shows, including for the Canadian Embassy in Tokyo and for Apple. He is also the creator of Upbeat™ - an immersive experience using the art of playing drums to enhance focus, energy, team work and problem-solving through the neuroscience of drumming.

Grant graduated from Queen's University of Kingston, Canada with a degree in Philosophy and Behavioural Psychology, focusing on human behaviour and personal development, graduating top of his class. He is certified in several behavioural and 360 assessments, including Marshall Goldsmith's Global Leadership 360; certified in the Foundations of NeuroLeadership from the NeuroLeadership Institute and the Foundations in Design Thinking from IDEO U; is a Marshall Goldsmith Stakeholder Centered Coaching Certified Executive Coach, NLI "Brain-Based" Coaching Certified Executive Coach; and a VILT certified facilitator. He has also written a book on strategic thinking and problem solving, and published a video series on *Leadership Communication* with Kenichi Ohmae's BBT Network. His new book, *Self-Leadership for Behavioural Change: A Bite-size Approach Using Psychology and Neuroscience*, will be published by Routledge Press in 2021.

Grant thrives on developing leaders around the world and helping organizations transfer best practices. He is based in Singapore, and travels extensively.

testimonials

"I would like to say "thank you" Grant for these outstanding EC (Executive Coaching) sessions. It has been an honor to participate in your EC sessions. Also I really enjoyed this valuable experience. At the beginning of this course, I did not realize how much this coaching will impact me. As time passed, I started having "A-HA" moments in daily business. Hints, advice and suggestions that Grant gave me during the EC sessions stay deeply in myself and create "A-HA" moments. What I have learned from these coaching sessions suddenly pops up and gives me hints and ideas to be a better manager. Even though the sessions are ended, the learning from this Executive Coaching will last and keep creating "A-HA" moments in me in the future as well."

Senior Vice President of Marketing, Pharmaceutical Industry

"First, let me say that the sessions with Grant have not only been enjoyable, but also have changed my life in a way that has already shown tangible returns to our organization. Thank you. Your energy, respect and humility makes your sessions easy to understand and easy to learn from, even when listening to critique of current practices. I have come to understand more clearly that there is no "perfect" management method; that the best one can do is to try to avoid major mistakes. And that the best way to do that is to: 1. always maintain one's composure; 2. ask questions, and more questions and yet more questions; and 3. truly listen to the answers. Employment of these practices has provided 3 of the most fulfilling meetings I have ever experienced in my adult career, in just this past week, each of which I believe will have a significant and tangible positive impact on our organization this year."

Executive Director of Sales, Financial Services Industry

"The program with Grant became an opportunity to learn leadership tricks, hear advice, get feedback and reflect on what my leadership style was and, more importantly, how it should evolve and develop. We discussed, for example, the concept of intervention and when is the right timing for a leader to step in. How to perceive the potential of subordinates and how to get them to achieve that potential. What are the absolute qualifications to being a true leader and What are my beliefs on leadership? How can I add and improve those beliefs? How to deal with complex situations, including careful analysis, determining resources and developing an action plan to come to solutions. All of these discussion topics forced me to first think about what my current opinions are – what did I think about those topics? Did I think about those topics? And then, through discussion and insights, I was able to enhance my appreciation and better hone and refine my own views. And best of all, because I am actively leading a team of leaders, I was able to immediately take the learnings from these sessions and apply them in my daily leadership life. I am now a better leader as a result of this program and am very thankful for the opportunity that was provided."

Director of Quality Assurance, Tech Industry

Developing Leaders and Company Culture for the Global Arena

YES (Your Empowering Solutions) partners with clients to co-create organizational solutions that solve business challenges and transform performance to optimize and execute the people strategy. Centering on building trust, a collaborative culture and high performance, we develop effective leadership behaviours, collaborative high performing teams and a people-driven organization.

Contact

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