

A CASE FOR THE BODY

WHY PHYSICAL VITALITY IS ESSENTIAL
FOR ORGANIZATIONAL PERFORMANCE



SUPPORTING CONCEPTS, RESEARCH AND
REFERENCES COMPILED BY

EXUBERANT ANIMAL[®]

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IT ALL BEGINS WITH THE BODY

In conventional business circles, the prevailing conversation is all about effective management and execution. It's a game of strategy and tactics, most of which are conceived and analyzed in the abstract world of the mind. In this world, the body rarely enters into the picture.

In fact, in most organizational settings, health is a matter of interest only in its absence. Skyrocketing medical costs and absenteeism are cause for concern, but the body is rarely granted a voice in the organizational operation or culture.

This perspective is about to change dramatically. A new era of biological sophistication is beginning to unfold, with a flood of new discoveries demonstrating the powerful interconnections between our physical states and our work-life performance. Increasingly, business leaders are coming to realize that high-functioning bodies are not merely desirable, but absolutely crucial to business and organizational success.

The body, after all, is the primary source of human action, creativity and performance. But the individual body does not stand alone. What happens in the individual body and brain ripple throughout social organizations, often with profound consequences, for better or for worse.

This leads us to the understanding that health is not just a luxury item in the modern organization; it's a business necessity. This is especially the case in today's high-intensity knowledge industries where demands on the human nervous system are extreme and stress is epidemic. In this kind of environment, small changes in individual health can have immense downstream consequences.

As you'll see, this document makes a case for the body and the Exuberant Animal® Training Method. By investing in the bodies and brains of the people in your organization, you'll enjoy substantial returns and benefits. As you'll see, the body is our future.



Frank Forencich
Chief creative officer
Exuberant Animal®

THE TOLL: US

Degenerative and lifestyle diseases sap the US economy:

- “Obesity indirectly costs the United States at least **\$450 billion** annually—almost three times the direct medical cost.” *McKinsey Quarterly* January 2011
- “The average obese person costs society more than \$7,000 a year in lost productivity and added medical treatment.” *Scaling Back Obesity* Scientific American, February 2011
- The cost of cardiovascular diseases, including health care expenditures and lost productivity from deaths and disability, is estimated to be more than **\$503 billion** in 2010. Source: Centers for Disease Control
- Diabetes estimated to cost **\$174 billion annually**. This estimate includes \$116 billion in excess medical expenditures, as well as \$58 billion in reduced national productivity. American Diabetes Association: “Economic Costs of Diabetes in the U.S. in 2007”
- The direct and indirect costs associated with depression in the United States in 1990 totaled more than **\$43.7 billion**. Each depressed worker costs his employer about \$3,000 per year.” MIT Sloan School of Management and Analysis Group, Inc.
- Total cost of back pain estimated at greater than **\$100 billion annually**, with two-thirds of that due to decreased wages and productivity. *Archives of Internal Medicine*: February 2009 Carey and Freburger
- In 2009, the National Institutes of Health estimated the 2008 overall annual costs of cancer were **\$228 billion**.
- The American Institute of Stress (AIS), reports that stress costs total some **\$300 billion** annually. This includes: “accidents, absenteeism, employee turnover, diminished productivity, direct medical, legal, and insurance costs, workers’ compensation awards as well as tort and liability judgments.”

Total cost of chronic and lifestyle disease to US economy: **\$1.8 trillion annually**

THE COST OF DISENGAGEMENT AND PRESENTEEISM

In 2011, the Gallup-Healthways Well-Being Index estimated the cost of America's disengagement crisis at a staggering **\$300 billion in lost productivity** annually.

"Fewer than 1 in 3 employees worldwide are engaged...Nearly 1 in 5 are actually disengaged." *Employee Engagement Report 2011: Beyond the numbers: A practical approach for individuals, managers, and executives.* Blessing White Intelligence, Princeton, New Jersey, Global Engagement Report

"The cost of an actively disengaged employee is \$16,000 per year." Gallup and HR.com

"As companies struggle to rein in health care costs, most overlook what may be a \$150 billion problem: the nearly invisible drain on worker productivity... Researchers say presenteeism—the problem of workers' being on the job but, because of illness or other medical conditions, not fully functioning—can cut individual productivity by one-third or more...Most studies confirm that presenteeism is far more costly than illness-related absenteeism or disability." *Presenteeism: At Work-But Out of It* by Paul Hemp Harvard Business Review, October 2004

"Presenteeism costs employers an estimated \$2000/yr/employee." *Cigna Behavioral Health*, April 26, 2004

"Research consistently shows that the costs to employers from health-related lost productivity dwarfs those of health insurance... A 2009 study by Dr. Ronald Loeppke and colleagues of absenteeism and presenteeism among 50,000 workers at 10 employers showed that lost productivity costs are 2.3 times higher than medical and pharmacy costs." *What's the hard return on employee wellness programs?* by Leonard L. Berry, Ann M. Mirabito, and William B. Baun Harvard Business Review: December 2010

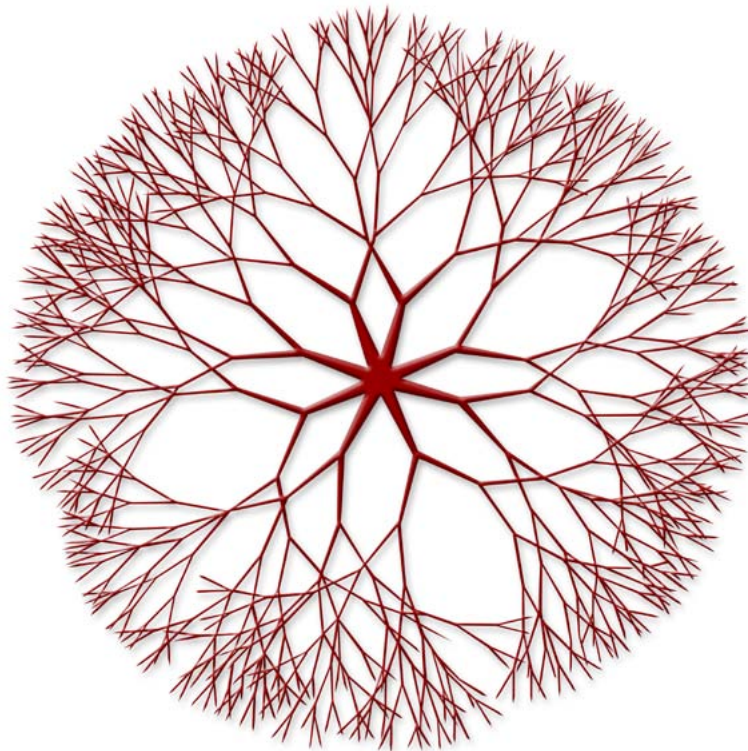
NEUROPLASTICITY AND NEURO-OPTIMISM

In today's fast-paced, knowledge-intensive industries, the human nervous system is an essential part of the organization's *neurological assets*. Discoveries in modern neuroscience over the last 20 years have generated exciting new ideas for preserving and extending this precious resource.

Throughout most of the 20th century, scientists believed that the human nervous system was fundamentally static. No new nerve cells could be generated and in turn, learning and potential were limited. This belief led many to focus on inborn and innate talent, while ignoring the vast potential for training and education.

Today we now know that the human nervous system is incredibly dynamic and is constantly re-sculpting itself in response to lived experience. Not only do we generate new brain cells—a process called *neurogenesis*— we also modify connections between cells and the insulation around nerve fibers. Collectively, these changes are referred to as *neuroplasticity*.

The discovery of neuroplasticity has profound implications for organizational development and success. It tells us that individuals are capable of outrageous growth in almost any skill or capability. By setting up proper environments and conditions, we can facilitate progressive learning throughout career and lifespan.



THE CASE FOR VIGOROUS MOVEMENT

The case for vigorous physical movement (exercise) has been made and the weight of evidence is overwhelming: Thousands of studies have shown conclusively a direct connection between regular physical movement and across-the-board improvements in both physical health and cognitive performance.

The basic value of exercise is widely understood, but the effect is both broader and deeper than previously realized. Frequent vigorous movement is associated with:

- Increased neurogenesis, the production of brain cells, especially in regions devoted to learning and memory.
- Increased production of neurotrophic factors such as “brain-derived neurotrophic hormone”
- Decreased levels of circulating stress hormones. In turn, this promotes learning, memory and self-regulation, while it decreases fear and impulsivity.
- Increased sense of psychological control, which leads to better stress management, impulse control and sense of security.

These benefits come with almost any form of vigorous movement. Aerobic exercise is considered highly beneficial for brain and nervous system function, but health and performance improvements occur with virtually any form of vigorous physical movement. The most significant improvements occur in the early stages, when individuals transition from sedentary to moderately active.

“There is a direct biological connection between movement and cognitive function... exercise is the single most powerful tool you have to optimize your brain function.”

Dr. John Ratey

Spark: The Revolutionary New Science of Exercise and the Brain

THE CASE FOR RAPPORT, TEAM COHESION AND SOCIAL INTELLIGENCE

Modern work demands ever-increasing levels of collaboration, cooperation and cross-boundary communication. Unfortunately, teams are often thrown together with no basis for cohesion other than a common objective.

Fortunately, we know how to facilitate team rapport. Social neuroscientists have traced the flow of social information through a “resonance circuit” in the brain and body. The conclusion: our social nature is profoundly physical.

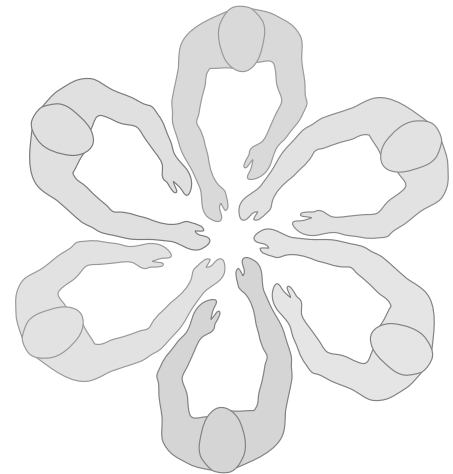
By engaging our bodies in a common physical experience, we share meaning and emotion. This develops both social and emotional intelligence and in turn, rapport.

“Although a job is often regarded as a purely economic transaction, the brain experiences the workplace first and foremost as a social system...The ability to intentionally address the social brain in the service of optimal performance will be a distinguishing leadership capability in the years ahead.”

David Rock
Managing with the Brain in Mind
strategy + business.com

“The brain is a social organ.”

Daniel Siegel M.D.
The Neurobiology of We: How Relationships, the
Mind, and the Brain Interact to Shape Who We Are



“A study of about 20,000 employees working in a wide range of jobs in Sweden, Finland, Germany, Poland, and Italy found that people who felt disconnected from their managers were more likely to get sick, miss work, or even suffer a heart attack. By contrast, data released by Gallup in 2007 show that people who have a best friend at work are seven times as likely as others to be positively engaged with their jobs.”

What Brain Science Tells Us About How to Excel: A doctor's prescription for achieving peak performance by Edward M. Hallowell Harvard Business Review, Reprint R1012L

THE CASE FOR STRESS EDUCATION

Over the last several decades, stress has emerged as an increasingly urgent health and workplace issue. Researchers now understand the physiological mechanism of the stress response and the psychological factors that influence it. We now know that stress hormones have a paradoxical effect: in small doses they enhance performance, cognition, learning and memory, but in large, chronic doses, they contribute to degenerative conditions and lead to a host of health-destructive consequences that also wreak havoc in the workplace.

In simple terms, stress makes everything worse. Both health and workplace performance suffer in tandem: chronic stress degrades judgment, impulse control, social and emotional intelligence, curiosity, creativity, innovation

The conventional approach is to seek a stress antidote: many programs seek to “eliminate stress.” The more sophisticated approach is practical stress education: not only should we seek to moderate the negative effects of stress, we should also learn how to maximize its potential for learning and performance. When fully understood by managers and employees, stress can have immense potential for powering creativity, innovation, productivity and growth.

“Humans cannot think creatively, work well with others, or make informed decisions when their threat responses are on high alert. Skilled leaders understand this and act accordingly.”

David Rock
Managing with the Brain in Mind
strategy + business.com



THE CASE FOR POSITIVE EMOTIONS

Positive emotions are far more than mere “feel-good” states. Rather, they are crucial for developing the cognitive flexibility and creativity that is so essential in the modern workplace. In this sense, happiness is vital to organizational performance.

“Our research shows that inner work life has a profound impact on workers’ **creativity, productivity, commitment and collegiality**. Employees are far more likely to have new ideas on days when they feel happier. Conventional wisdom suggests that pressure enhances performance; our real-time data, however, shows that workers perform better when they are happily engaged in what they do.”

Gallup-Healthways Well-Being Index

Findings from *What Good are Positive Emotions?*:

“Positive emotions serve to **broaden an individual’s thought-action repertoire**, which in turn has the effect of building that individual’s physical, intellectual and social resources.”

“...positive emotions prompt individuals to discard time-tested or automatic behavioral scripts and to pursue **novel, creative, and often unscripted paths of thought and action**.”

“...people experiencing positive affect were **more flexible categorizers**.”

“...positive affect leads people to see **relatedness and interconnections** among thoughts and ideas and to process material in a more integrated and flexible fashion.”

“...positive affect promotes **improved understanding of complex situations**.”

“...increases the likelihood that an individual will **help others who are in need**.”

Source: *What Good are Positive Emotions?* Barbara Fredrickson, Review of General Psychology 1998, Vol. 2, No. 3. 300-319

THE CASE FOR PLAY AND CREATIVITY

“Serious play is not an oxymoron; it is the essence of innovation.”

Michael Schrage

Serious Play: How the World's Best Companies Simulate to Innovate

“What kind of leadership do we need now? I’ve been asking this question of thousands of business professionals over the last year or so around the country. By far, the most common responses? Adaptive, flexible, and innovative. Because of the ubiquitous sense of turbulence in most of our lives these days, **the leadership attribute that comes to mind most often is the means for dealing with chaos. It boils down to this: playful creativity.**”

Stewart D. Friedman

Practice Professor of Management at the Wharton School

author of *Total Leadership: Be a Better Leader, Have a Richer Life*

“The necessity of human ingenuity is undisputed. A recent IBM poll of 1,500 CEOs identified **creativity as the No. 1 “leadership competency” of the future...**What’s common about successful programs is they alternate maximum divergent thinking with bouts of intense convergent thinking, through several stages.”

Creativity in America: The Science of Innovation and How to Reignite our

Imaginations by Po Bronson and Ashley Merryman Newsweek July 19, 2010

“We know from neuroscience that **play builds your brain.** It stimulates the secretion of brain derived neurotrophic factor, or BDNF, a recently discovered molecule that promotes nerve growth. In addition, play has a beneficial effect on the prefrontal cortex, which regulates executive functions such as planning, organizing, prioritizing, deciding, scheduling, anticipating, delegating, analyzing—in short, most of **the skills you need to excel in business.**”

What Brain Science Tells Us About How to Excel by Edward M. Hallowell A doctor’s prescription for achieving peak performance. Harvard Business Review Reprint R1012L

RETURNS ON INVESTMENT

“Better management of employee health can lead to improved productivity, which can create a competitive business advantage...Investments to reduce presenteeism, because they are so rare, offer greater opportunities for getting ahead of the competition...”

Sean Sullivan
Institute for Health and Productivity Management

“The single greatest competitive advantage in the modern economy is a positive and engaged workforce. That is not conjecture. That is now a confirmed scientific fact... The ‘happiness advantage’ is the discovery that nearly every single business outcome improves when a brain is positive as opposed to negative, neutral, or stressed.”

Shawn Achor
The Happiness Work Ethic

“A Midwest utility company learned firsthand that it pays to keep healthy employees fit, reaping a net savings of \$4.8 million in employee health and lost work time costs over nine years.”

University of Michigan, School of Kinesiology’s Health Management Research Center, 2010 study report.

Excerpts from *What’s the Hard Return on Employee Wellness Programs* Harvard Business Review, December 2010:

- “Johnson and Johnson’s leaders estimate that wellness programs have cumulatively saved the company **\$250 million on health care costs** over the past decade; from 2002 to 2008, the return was \$2.71 for every dollar spent.”
- “A study by physicians Richard Milani and Carl Lavie found that ‘every dollar invested in the intervention yielded **\$6 in health care savings.**’”
- “Healthy employees stay with your company. A study by Towers Watson and the National Business Group on Health shows that organizations with highly effective wellness programs report **significantly lower voluntary attrition...**”
- “...healthy workers are **safer** workers.”

READING AND REFERENCES

BOOKS

Stress and the Body by Robert Sapolsky: Audio and DVD by The Teaching Company

Why Zebras Don't Get Ulcers by Robert Sapolsky

Mindset: The New Psychology of Success by Carol Dweck

The Power of Full Engagement by Jim Loehr and Tony Schwartz

The Power of Story: Change Your Story, Change Your Destiny in Business and in Life by Jim Loehr

The Way We're Working Isn't Working: The Four Forgotten Needs that Energize Great Performance by Tony Schwartz

Spark: The Revolutionary New Science of Exercise and the Brain by John Ratey M.D.

The Talent Code: Greatness Isn't Born. It's Grown. Here's How by Daniel Coyle

Talent is Over-Rated: What Really Separates World-class Performers from Everybody Else by Geoff Colvin

Free Play: Improvisation in Life and Art by Stephen Nachmanovitch

Play by Stuart Brown M.D.

Iconoclast: A Neuroscientist Reveals How to Think Differently by Gregory Burns

The Brain That Changes Itself by Norman Doidge M.D.

Brain Rules by John Medina

A General Theory of Love by Thomas Lewis, Fari Amini and Richard Lannon

The Joy of Living: Unlocking the Secret and Science of Happiness by Yongey Mingyur Rinpoche

The Relaxation Response by Herbert Benson, M.D.

Relaxation Revolution by Herbert Benson, M.D.

The Twenty-Four Hour Society by Martin Moore-Ede

Emotional Intelligence: Why it Can Matter More than IQ by Daniel Goleman

Social Intelligence: The New Science of Human Relationships by Daniel Goleman

Mirroring People: The Science of Empathy and How We Connect With Others by Marco Iacoboni

The Age of Empathy: Nature's Lessons for a Kinder Society by Frans de Waal

No Contest: The Case Against Competition by Alfie Kohn

Punished by Rewards: The Trouble with Gold Stars, Incentive Plans, A's, Praise and Other Bribes by Alfie Kohn

Learned Optimism: How to Change Your Mind and Your Life: by Martin Seligman Ph.D.

The Neuroscience of Psychotherapy: Building and Rebuilding the Human Brain: by Louis Cozolino

Descartes' Error: Emotion, Reason, and the Human Brain by Antonio Damasio

The Neurobiology of We: How Relationships, the Mind, and the Brain Interact to Shape Who We Are by Daniel Siegel, M.D. Sounds True Audio Learning Course

Narrative Medicine: The Use of History and Story in the Healing Process: by Lewis Mehl-Madrona, M.D.

The Aims of Education "The Rhythmic Claims of Freedom and Discipline" by Alfred North Whitehead

Flow: The Psychology of Optimal Experience by Mihaly Csikszentmihalyi

The Art of Happiness by The Dalai Lama

Train Your Mind, Change Your Brain by Sharon Begley

RESEARCH PAPERS AND REPORTS

What Good are Positive Emotions? Barbara Fredrickson, Review of General Psychology 1998, Vol. 2, No. 3. 300-319

Positive Social Interactions and the Human Body at Work: Linking Organizations and Physiology. Emily D. Heaphy and Jane E. Dutton Academy of Management Review 2008, Vol. 33, No. 1, 137–162.

Creating a Culture of Happiness: The Link Between Happy Employees and a Thriving Organization. Health Enhancement Systems, Midland MI 48640

Scaling Back Obesity: Scientific American, February 2011

Employee Engagement Report 2011: Beyond the numbers: A practical approach for individuals, managers, and executives. Blessing White Intelligence, Princeton, New Jersey, Global Engagement Report

What Brain Science Tells Us About How to Excel by Edward M. Hallowell A doctor's prescription for achieving peak performance. Harvard Business Review Reprint R1012L

Manage Your Energy, Not Your Time by Tony Schwartz and Catherine McCarthy, Harvard Business Review, October 2007 Reprint R0710B

Engagement is the Keystone of Employee Productivity June 2010 White Paper by the Human Performance Institute

Get in Shape to Lead November 1, 2007 Harvard Business Review

What's the Hard Return on Employee Wellness Programs? Harvard Business Review, Reprint R1012J

The Making of a Corporate Athlete by Jim Loehr and Tony Schwartz: Harvard Business Review reprint R0101H

Workplace Wellness Plan Saves Money Over the Long-Term by Dee Edington, director of the University of Michigan Health Management Research Center”

The Happiness Work Ethic By Shawn Achor

Recovering from Information Overload by Derek Dean and Caroline Webb: McKinsey Quarterly, January 2011

Cognitive Fitness: New research in neuroscience shows how to stay sharp by exercising your brain: Harvard Business Review Reprint R0711B

REVITALIZE YOUR BODY, YOUR PEOPLE AND YOUR ORGANIZATION

Exuberant Animal® is a multi-disciplinary approach to performance that combines the study of practical neuroscience with vigorous movement and health education. We offer a uniquely integrated experience that will open your mind, body and organization to new dimensions of performance and potential.

Ideal for team leaders, visionaries, educators and trainers, this program will leave you laughing, sweating and inspired!

- Learn the neurological basis of performance
- Increase team cohesion and good will
- Improve your understanding of stress
- Increase focus and concentration
- Increase creativity and innovation
- Preserve your neurological assets



Half, full and multi-day training events are available. Contact us for details.

Frank Forench is an internationally-recognized leader in health education and performance training. He earned his B.A. at Stanford University in human biology and neuroscience and has over 30 years teaching experience in martial art, functional movement and health promotion. He holds black belt rankings in both karate and aikido and has consulted to major corporations, human resource groups and fitness professionals.

Frank has climbed mountains across North America and has traveled to Africa on several occasions to study human origins. He is the author of *Play as if Your Life Depends on It*, *Exuberant Animal*, and *Change Your Body, Change the World: Reflections on Health and the Human Predicament*.

- Partner at The National Institute for Play
- Expert consultant to WildFitness
- Featured presenter: Ancestral Health Symposium, UCLA, 2011
- Member, Ancestral Health Society
- Presenter: Serious Play Conference, 2011
- Presenter: First Annual Conference on The State of Play Science, 2008, Stanford University.
- Guest lecturer: Stanford University Institute of Design, April 2009, 2010, 2011
- Featured presenter: National Applied Functional Physical Education Conference, October 2009
- Workshop leader: Baker and McKenzie Hong Kong, December 2010
- Guest speaker: TEDx Pearl River, Hong Kong

