COAT Conference

Mindfulness Amidst the Madness

How to use mindfulness to cultivate resilience and peak performance in decision making

Openground

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Mindfulness Based Stress Reduction

Developed by Jon Kabat-Zinn
UMass Medical Center
30 years of research
Body-mind / integrative medicine
Embodied mental training

BODY ⟷ MIND

Definition of mindfulness

Paying attention

On purpose

In the present moment

Non-judgmentally

(curiosity, openness, kindness)

Jon Kabat-Zinn

Stress Involves Appraisal

In order to feel stressed, we need 2 things:

A - the experience that a change is needed or there is a demand to meet

AND

B - that one doesn't have the resources to meet that demand.

Both these steps involve appraisal

The power of thinking

I’ve experienced some terrible things in my life, some of which actually happened!

Mark Twain

Space

Between the stimulus and the response

is a space.

Within that space lies our freedom.

Viktor Frankl

The two darts

1. Unpleasant things arise
2. Our reaction to them

Mindfulness helps us not throw the second dart.

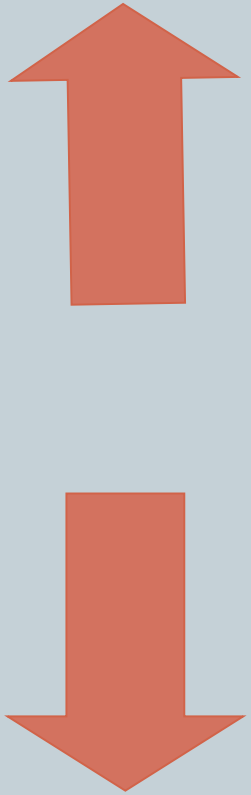
The body under stress

What happens under threat? (stress)

- Heart rate?
- Blood pressure?
- Sleep?
- Tension?
- Blood flow?
- Digestion?
- Immune system?

Autonomic Nervous System

- Sympathetic branch: energy mobilizing
  - Fight/flight response
  - Excitement, distress, anger, fear
  - Chronic arousal damages brain and body
- Parasympathetic branch: energy conserving
  - Pleasurable relaxation, sadness (collapse, freeze)
  - Required for rest, recuperation, repair for cells, organs,
  - sleep, digestion, healthy metabolism, nervous system regulation



2011: Brain changes

Increased brain grey matter

in areas associated with:

- Sustained attention
- Emotional regulation
- Perspective taking

"Mindfulness practice leads to increases in regional brain gray matter density." *Psychiatry Research: Neuroimaging*, 2011; 191 (1): 36 Lazar, SW, Holzel, BK, et al.

2003: Brain changes and immune function

- Increases in Left Pre-frontal Cortex – a predictor of happiness and well-being
- Boosted immune function

"Alterations in brain and immune function produced by mindfulness meditation" Davison, RJ, Kabat-Zinn, J., et al, Psychosom Med. 2003 Jul-Aug;65(4):564-70.

2010: Working under pressure

US Marine Corp study:

- Improved:
  - Mood/emotional control
  - Working memory
  - Complex thought
  - Problem solving
- Reduced:
  - Functional impairments
  - Post Traumatic Stress

"Examining the protective effects of mindfulness training on working memory capacity and affective experience."
Jha, Amishi P., et al, Emotion, Vol 10(1), Feb 2010, 54-64.

2004: Physical and mental health

Beneficial for:

- Stress, anxiety, depression and addictive behaviors
- Pain, heart disease, IBS, diabetes, heart disease

Grossman et al: “MBSR and Health Benefits: A Meta-analysis, Journal of Psychosomatic

- Research: 57 (2004) 35-43.

2004 Emotional intelligence and relationships

- Improved emotional intelligence
- Improved interpersonal skills
- Empathy

"Mindfulness Based Relationship Enhancement" Carson, JW., Behavior Therapy, 35, 471–494, 2004

2 information processing systems

Reflexive Thinking

(Thinking fast)

- Operates automatically and quickly
- Unconscious
- Always working
- Based on schemas and heuristics

Reflective Thinking

(Thinking slow)

- Analytic and deliberative
- Conscious
- Requires effort and therefore has a limited capacity

Matthew D, Leiberman, “Reflexive and Reflective Judgment processes: A Social Cognitive Neuroscience Approach” in Social Judgments: Implicit and Explicit Processes, 44 (2003)

Schemas

- Principle of least effort means that decision makers tend to rely on automatic retrieval of schemas to process incoming information
- Reflective system only engaged when we are motivated to do so eg.. solving a complex problem or learning something new
- However sometimes underlying schemas are based on inaccurate information eg.. heuristics and implicit biases

Examples of heuristics and implicit biases

- Anchoring – study of German judges in criminal sentencing decisions influenced by irrelevant anchors
- Framing – the same information presented differently eg.. glass half full or half empty
- Implicit biases – implicit stereotypes or attitudes operating below the radar but when one is aware of these, they can suppress their bias if needed

Birte Englich, Thomas Mussweiler and Fritz Strack,. “Playing Dice with Criminal Sentences: The Influence of Irrelevant Anchors on Experts Judicial Decision Making” 32 Personality and Soc, Psychol. Bull. 188 (2006)

Physical Factors affecting decision making

- Fatigue, mood and depleted glucose levels impair decision making abilities
- When glucose levels are low, one relies more on reflexive decision making and it is more difficult to engage their reflective system
- 2011 Study of Israeli parole board judges showed timing of cases just after meal breaks was most determinative factor for granting parole

Shai Danziger, Johnathon Levav and Liora Avnaim- Pesso, “Extraneous Factors in Judicial Decisions” 108 Proc, Nat'l Acad. Sci, 6889 (2011)

Decision making

- Most decisions result from a combination of reflexive and reflective processes.
- Real question is whether we can lessen the impact of those factors that impede good decision making.
- Mindfulness helps us become aware of the physical factors, and also the mental factors at play such as certain heuristics and implicit biases.

Many times a day…..

The Breathing Space

Stop

Take a breath

Open to what you're thinking, feeling and doing

Proceed

In daily life…