

THE A WORD

ATTENTION

[uh-ten-shuh/n, uh-ten-shuhn]

The act or faculty of attending, especially by directing the mind to an object.

A concentration of the mind on a single object or thought, especially one preferentially selected from a complex, with a view to limiting or clarifying receptivity by narrowing the range of stimuli.

A state of consciousness characterized by such concentration.

A capacity to maintain selective or sustained concentration.

Observant care; consideration.

Civility or courtesy.

Notice or awareness.

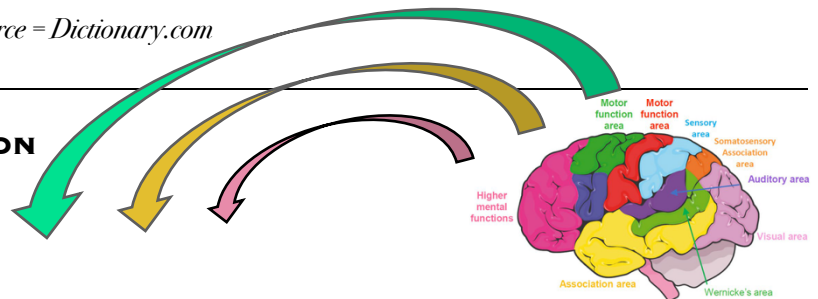
Attentions - acts of courtesy or devotion indicating affection, as in courtship.

Military., an erect position with eyes to the front, arms to the sides, and heels together (often used as a command).

Source = Dictionary.com

ATTENTION TRAINING VIA MEDITATION

(Meditation forms with distinct EEG profiles)



Focused attention (FA)

Voluntary sustained attention focused **on a given object**

Attention is brought back to the object as needed.

Controlling the content of consciousness in a beam of attention.

Brainwaves impacted = Gamma and Beta 2

Open monitoring (OM)

Non-reactive monitoring of the content of the **emerging experience**,

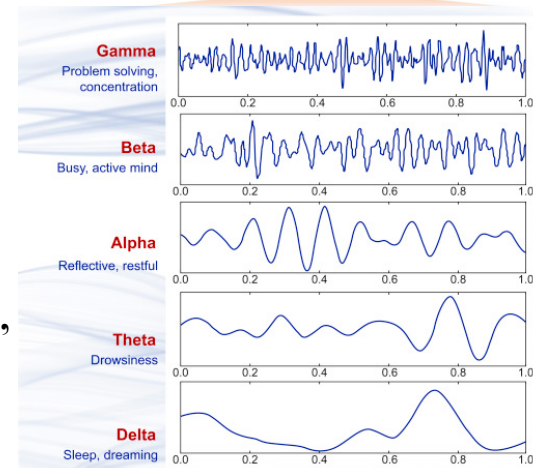
Open presence and a non-judgmental awareness of **sensory, cognitive,** and **affective** fields of experience in the present moment

Brainwaves impacted = Theta

Self-transcending (ST)

Involves **minimal cognitive control**— automatic or effortless.

Brainwaves impacted = Alpha 1



Sources: 1. Priyanka A. Abhang, Bharti W. Gawali, Suresh C. Mehrotra. (2016) Chapter 2 - Technological Basics of EEG Recording and Operation of Apparatus (2016), 2. Hughes, J (2008). Gamma, fast, and ultrafast waves of the brain: Their relationships with epilepsy and behavior, Epilepsy & Behavior, Volume 13, Issue 1, 2008, Pages 25-31. Kaur, C., & Singh, P. (2015). EEG derived neuronal dynamics during meditation: Progress and challenges. *Advances in preventive medicine*, 2015(1), 614723.

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CONTEXT	ATTENTION TRAINING EXPERIMENTS
HOME	<ul style="list-style-type: none"> • Open monitoring (OM) <ul style="list-style-type: none"> ○ <u>Non-reactive monitoring</u> of the content of the emerging experience, ○ Open presence and a <u>non-judgmental awareness</u> of sensory, cognitive and affective fields of experience in the present moment <ul style="list-style-type: none"> ▪ Sensory <ul style="list-style-type: none"> • Identify 5 things you see, 4 things you can touch, 3 things you can hear, 2 things you can smell, 1 thing you can taste ▪ Cognitive <ul style="list-style-type: none"> • Scripting (i.e., noticing narrators) <ul style="list-style-type: none"> ○ <u>Tip</u>: Link states of embodiment states to common scripts. ▪ Affective (i.e., emotions) <ul style="list-style-type: none"> • Nervous system up/down regulation → hormones → emotions • <u>Tip</u>: Search body for where particular emotions manifest - e.g., tense jaw or tension headache, neck & shoulders, stomach, etc. • Traditional practices = Vipassana, ZaZen, Sahaja
SCHOOL OR WORKPLACE	<ul style="list-style-type: none"> • Focused attention (FA) <ul style="list-style-type: none"> ○ <u>Voluntary sustained attention</u> focused on a given object, and attention is brought back to the object as needed. ○ Examples <ul style="list-style-type: none"> ▪ Heart-Centered Breathing ▪ Body Scan / Posture Scan ▪ Repeated viewing of a picture on phone (or) computer screen ▪ <u>Attention Network Test</u>, <u>Selective Attention Test</u>, <u>Flanker Task</u>, <u>Corsi Blocks</u>, <u>Digit Span</u>, <u>Trail Making Test</u> ○ Traditional practices = Looking up at night sky, candle gazing
SPORT	<ul style="list-style-type: none"> • Self-transcending (ST) <ul style="list-style-type: none"> ○ Involves minimal cognitive control– <u>automatic or effortless</u>. ○ Repeated mantra <ul style="list-style-type: none"> ▪ Serenity Prayer ▪ Ohm-Mani-Padme-Hum ▪ “One step at a time” ○ Affirmations <ul style="list-style-type: none"> ▪ “My body is balanced, vital, and healthy.” ▪ “Be here now” ▪ “Enrich life” ○ Traditional practices = Transcendental Meditation, Qigong

Adapted from: 1. Priyanka A. Abhang, Bharti W. Gawali, Suresh C. Mehrotra. (2016) Chapter 2 - Technological Basics of EEG Recording and Operation of Apparatus (2016), 2.Hughes, J (2008). Gamma, fast, and ultrafast waves of the brain: Their relationships with epilepsy and behavior, *Epilepsy & Behavior*, Volume 13, Issue 1, 2008, Pages 25-31. Kaur, C., & Singh, P. (2015). EEG derived neuronal dynamics during meditation: Progress and challenges. *Advances in preventive medicine*, 2015(1), 614723.



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THE **B** WORD

BIOFEEDBACK

[bahy-oh-feed-bak]

A method of learning to control one's bodily functions by monitoring one's own brain waves, blood pressure, degree of muscle tension, etc.

The feedback thus obtained.

The process of returning part of the output of a circuit, system, or device to the input, either to oppose the input negative feedback or to aid the input positive feedback.

The furnishing of data concerning the operation or output of a machine to an automatic control device or to the machine itself, so that subsequent or ongoing operations of the machine can be altered or corrected.

A reaction or response to a particular process or activity.

Evaluative information derived from such a reaction or response.

Psychology. knowledge of the results of any behavior, considered as influencing or modifying further performance.

Biology. a self-regulatory biological system, as in the synthesis of some hormones, in which the output or response affects the input, either positively or negatively.

Source = Dictionary.com

BIOFEEDBACK & BURNOUT PREVENTION

(A Heart-Centered Perspective)

The Heart-Brain Connection

Stress = "the non-specific response of the body to any demand for change." - Hans Selye

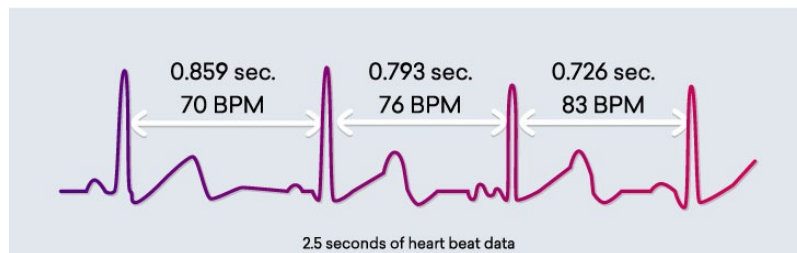
The heart sends more signals to the brain than the brain sends to the heart

Heart signals have a significant effect on brain function – influencing emotional processing as well as higher cognitive faculties such as attention, perception, memory, and problem-solving



HeartMath.
Certified Practitioner

Heart rate variability (HRV) is a measure of the beat-to-beat changes in heart rate.



This diagram shows three heartbeats recorded on an electrocardiogram (ECG).



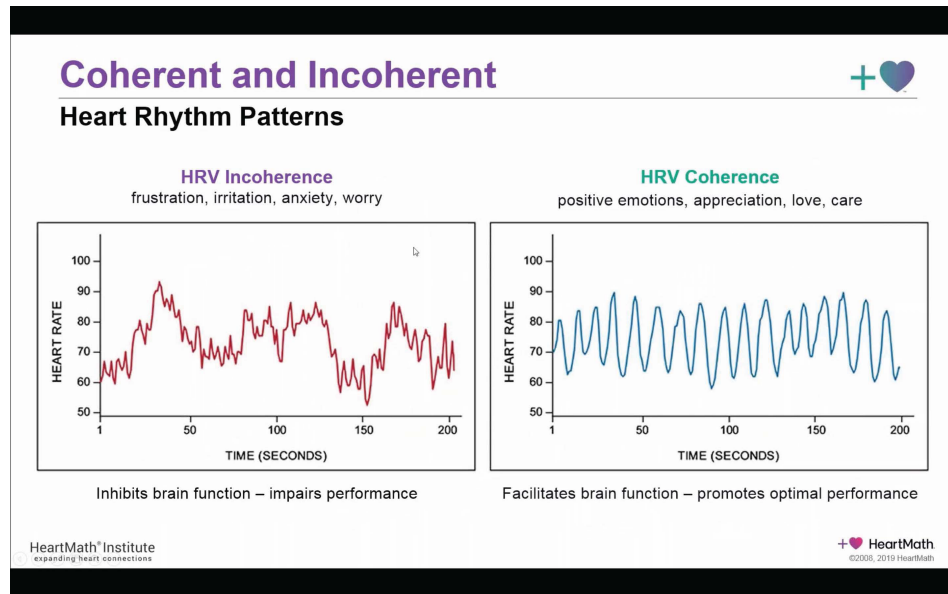
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THE B WORD

HEART RATE VARIABILITY (HRV) is due to synergistic action of two branches of the autonomic nervous system (ANS)—the sympathetic nerves accelerate heart rate, while the parasympathetic nerves slow down heart rate.



**** HRV is an indicator of health, fitness & biological aging ****

CONTEXT	BIOFEEDBACK EXPERIMENTS
HOME	Heart Focused Breathing Technique <ol style="list-style-type: none"> 1. Focus your attention in the area of the heart 2. Imagine your breath is flowing in and out of your heart or chest area, 3. Breath a little slower and deeper than usual
SCHOOL OR WORKPLACE	Coherent Communication Technique <ol style="list-style-type: none"> 1. Shift into heart coherence 2. Listen for the essence; Speak with a genuine tone 3. Confirm mutual understanding
SPORT	Heart Lock in Technique <ol style="list-style-type: none"> 1. Heart-Focused Breathing 2. Activate and sustain a regenerative feeling 3. Radiate



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THE **C** WORD

CHANGE

[cheɪnj]

To become different, altered or modified.

To become transformed or converted (usually followed by *into*).

To pass gradually into (usually followed by *to* or *into*).

To switch or to make an exchange.

To transfer between trains or other conveyances.

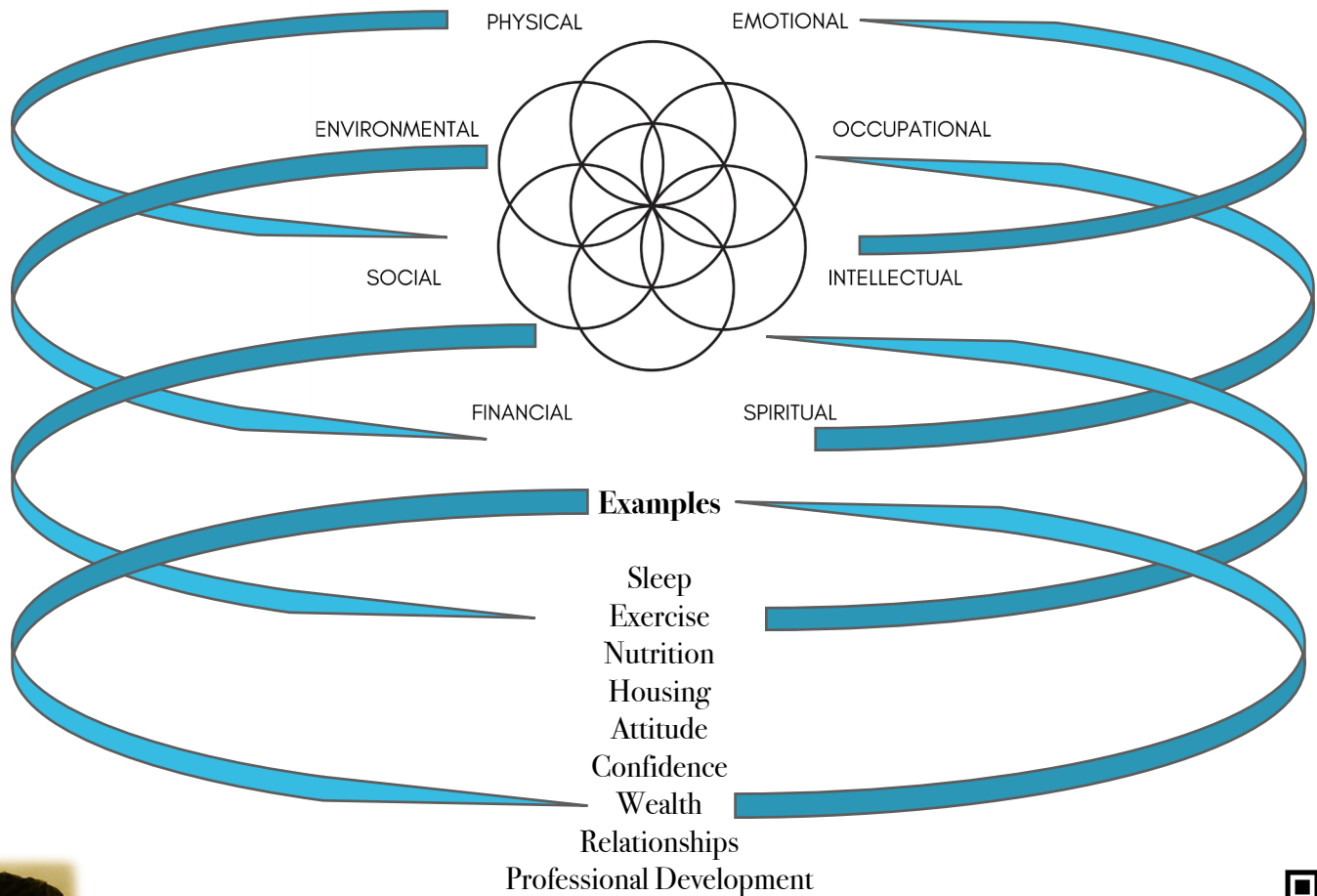
To remove one's clothes and put on different clothes.

(of the moon) to pass from one phase to another.

(of the voice) To become deeper in tone; come to have a lower register.

Source = Dictionary.com

NEEDS CHANGE OVER TIME.



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THE C WORD

CONTEXT	<p>Pick a dimension of your <u>life</u> / current <u>habit</u> to change</p> <p>Please fill in the following blanks with your specific habit / desired therapeutic lifestyle change - e.g., <i>Exercise Routines, Balanced Diet, Engaging in Outdoor Activities, Contribution and/or Community Service, Healthy Relationships, Meditation Practice, Recreation/Fun, Spiritual/Religious Involvement.</i></p>
PRE-CONTEMPLATION	<p>Version1: I am currently _____ and do not intend to <u>stop</u> _____ within the next six months.</p> <p>Version2: I am <u>not</u> currently _____ and do not intend to <u>start</u> _____ within the next six months.</p>
CONTEMPLATION	<p>Version1: I am currently _____ but I am thinking about <u>stopping</u> within the next six months.</p> <p>Version2: I am <u>not</u> currently _____ but I am thinking about <u>starting</u> within the next six months.</p>
PREPARATION	<p>Version1: I am currently _____ but I intend to <u>stop</u> within the next thirty days and I have made at least one attempt to do so within the past year.</p> <p>Version2: I am <u>not</u> currently _____ but I intend to <u>start</u> within the next thirty days and I have made at least one attempt to do so within the past year.</p>
ACTION	<p>Version1: I am no longer _____ and <u>stopped</u> within the last six months.</p> <p>Version2: I am now _____ and have <u>continued</u> for the last six months.</p>
MAINTENANCE	<p>Version1: I am no longer _____ and <u>stopped</u> for longer than six months.</p> <p>Version2: I am now _____ and have <u>continued</u> for longer than six months.</p>

Table adapted from: 1. Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: theory, research & practice*, 19(3), 276. 2. Walsh, R. (2011). Lifestyle and mental health. *American psychologist*, 66(7), 579.



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