

The Art and Science of Meditation

Co-creating life moment by moment.
Dharma Talk – April Koester (OIMG)

How we
Pay
Attention
is an
Ethical and
Creative
Act

- Training our attention is both a science and and art.
- The result is a practice of co-creating reality and a partner in the unfolding of our lives and those of all living beings we touch.

Words of the Buddha
The Dhammapadda

(trans. Gil Fronsdal)

All experience is preceded
by mind,

Led by mind,

Made by mind.

Speak or act with corrupted
mind, And suffering follows

As the wagon wheel follows
the hoof of the ox.



The Art of Meditation

- When I think of the art of meditation I think of our intimate relationship with the beautiful gift of this world, the gift of life.
- As we sit and be with our breath and begin to open to the wonder and magnificence of this creation we are blessed to experience, we can develop a love affair with our breath, with the silence that can open so many unseen worlds to us.

The Art of Meditation

- When I think of the word art and all that I've experienced in music, in visual art, in poetry, of expertly prepared food, of the quilts I've made, the songs we sing, they are also vivid wonders of experience, of intuition of something we can feel even without words, a deep communication with reality that is mysterious and beautiful and that we often describe with love.
- In the 1920's, the painter Georgia O'Keeffe said, "I found I could say things with color and shapes that I couldn't say any other way - things I had no words for."

The Art of Meditation

- We often say that music, art, and writing make life worth living. We understand there is some kind of relationship there transcending mechanics; there are emotions, purpose, and meaning.
- The art of meditation brings this same potency to each moment of our experience as we co-creative a living reality breath by breath, moment by moment, choice by choice.

The Art of Meditation

- The pause itself between phenomena arising and our response to it is art. An intimate conversation with reality, where we are receiving and then shaping what comes next with our action.
- Our attention is a fine instrument of creation, sculpting experience by what we see, feel, touch, and hear, and how we cultivate awareness and respond to our experience.

The Art of Meditation

- Artists have been known to illuminate reality in new ways for people. Often preceding major advances in science, in the understanding of reality.
- Showing visually or sonically this intuitive understanding of the deeper nature of our always-changing reality.
- Earlier artists shocked populations by challenging their perceptive status quo. People began to see that things were not as solid and unchanging as they first thought.

John Cage

John Cage's work explores silence and the spaces between sounds

4'33", musical composition by John Cage created in 1952

His famous piece *4'33"* involves musicians sitting in silence, inviting listeners to experience the ambient sounds around them as part of the composition.

The act of listening is in fact an act of composing.

Everything you do is music, and everywhere is the best seat.

The Art of Meditation

- Meditators are also vanguard.
- Challenging the status quo of cultural conditioning, and societal expectations that have turned out to be harmful,
- Considering the careful art of attention the vital force that it is.
- Rebelling against a culture obsessed with doing and exploring the highly valuable and essential dimension of being.

The Art of Meditation

- The art of finding freedom is a bold creative act and one that connects us back to an intuitive knowing of love as foundational in the universe.
- This art of cultivating our attention is a very fine art. Our training and expression of it seemingly has no end. Each of us is where we are on the path. Each of us honing our consciousness with the finest brush.

Marcel Proust

Around 1909 wrote:

The only true voyage of discovery...would be not to visit strange lands but to possess other eyes.

The Art of Meditation

- But in order to achieve this flow, this effortless sense of co-creation like all artists from the past we must hone our skills, and our techniques, we must practice and learn a repertoire.
- We must see what has been done before and learn from those masters. We must understand the natural laws and physics of our craft. When we combine the science and art of meditation we are on our way to our own masterpiece of joy, peace, compassion, love, and freedom, not only for ourselves but for all living things.

The Art of Meditation

- The Buddha knew both the science and art of meditation and as an enlightened being the ultimate experience of pure timeless creation.
- Let's turn now to how the Buddha approached the science of meditation and the practical tools, techniques and lessons to become a master. A skilled artist of presence and the co-author of experience. One that left a skillful wake and positive influence on others. And then I will discuss what modern science has also discovered about its fruits.

The Four Noble Truths – Understanding Reality's Properties

- **First Noble Truth (Dukkha):** Recognizing suffering as a natural part of life
- **Second Noble Truth (Samudaya):** There is a cause to suffering: craving and clinging
- **Third Noble Truth (Nirodha):** There is a way to end suffering.
- **Fourth Noble Truth (Magga):** Path to ending suffering—Eightfold Path as our practice "toolkit"

The Law of Karma – Cause and Effect in Creation

- **Karma as the natural law of actions and consequences:**
- Actions driven by intention (know our motivation) a deed done deliberately through body, speech or mind, which leads to future consequences.

The Eightfold Path – Techniques and Practices for Inner Mastery

- **Eightfold Path as the “artist’s toolkit” of mindful living:**
- Skills and practices we need to artfully co-create with reality and have a positive impact.

Right View

- Right view includes a correct understanding of the Four Noble Truths, the law of karma (the principle that our actions have consequences), and the impermanence and interconnectedness of all phenomena. It involves recognizing the nature of suffering, its causes, and the path to its cessation.

Right Intention

- Right Intention means cultivating wholesome and ethical intentions. This includes our intentions to renounce harmful actions, to develop goodwill and compassion toward all beings, and to cultivate non-attachment or non-harming.

Right Speech

- False speech, divisive speech, harsh speech, and idle chatter are all considered unskillful and harmful and should be avoided. Instead, we should use our words to promote truth, harmony, and understanding.

Right Action

- Skillful action emphasizes ethical conduct and the importance of leading a life that is aligned with moral principles. This means refraining from harmful actions, including killing, stealing, sexual misconduct, and so on.

Right Livelihood

- To engage in right livelihood means choosing work that is in harmony with the principles of ethical conduct and does not harm others. For example, this would include avoiding professions that involve harming sentient beings or engaging in dishonesty.

Right Effort

- Right effort means making a persistent and diligent effort to cultivate wholesome qualities and eliminate unwholesome ones, abandon negative mental states, and nurture positive ones.

Right Mindfulness

- Right mindfulness is the practice of being fully aware and present in the moment: observing our body, feelings, mind, and mental phenomena with clear and non-judgmental awareness.

Right Concentration

- Right concentration is the development of a one-pointed, focused mind. This is achieved through meditation practices that allow the mind to become absorbed in a single object of concentration, leading to states of mental tranquility and insight.

Becoming Skilled Meditators and Human Beings

- **Training manual and practice guide**
- **Meditation as training the mind to align with these natural laws:**
- Using these principles to develop clarity, compassion, and wisdom as core skills
- **Path to mastery:** Like learning the foundations of any art, the Eightfold Path requires dedication, practice, and refinement

From the Buddha's Science to Modern Science

- **Modern science confirms ancient wisdom:** Meditation changes the brain and improves lives
- **Focus of scientific studies:** Brain structure, function, and psychological benefits in experienced meditators
- **How meditation transforms us:** Physical, mental, and emotional benefits supported by neuroscience

Neuroplasticity – The Brain’s Ability to Change

- **Neuroplasticity defined:** Brain’s ability to reorganize and form new neural connections
- **Meditation and brain adaptability:** Regular practice reshapes the brain’s structure
- **Key point:** Our brains are not fixed; we can “train” our minds toward peace, compassion, and resilience

Increased Gray Matter in Key Areas

- **Gray matter growth in meditators:** Observed in areas related to emotional regulation, memory, and empathy
- **Prefrontal cortex and hippocampus:** Regions associated with awareness, decision-making, and memory
- **Result:** Enhanced mental clarity, better emotional stability, and improved memory

Reduced Activity in the Default Mode Network (DMN)

- **Default Mode Network (DMN):** The “wandering mind,” often linked to rumination and stress
- **Meditation quiets the DMN:** Experienced meditators show reduced activity in this network
- **Impact:** Less mental chatter, fewer intrusive thoughts, greater peace and focus

Strengthened Connections – Improved Emotional Regulation

- **Amygdala changes:** Area related to fear and stress response tends to shrink with regular meditation
- **Stronger connections between prefrontal cortex and amygdala:** Improved emotional control
- **Outcome:** Reduced reactivity to stress, enhanced ability to respond calmly

Enhanced Focus and Attention

- **Strengthening the brain's “attention muscle”:** Regular meditation improves sustained focus
- **Anterior cingulate cortex (ACC) development:** Increases attentional control and cognitive flexibility
- **Result:** Better concentration, higher productivity, and a stronger ability to stay present

Improved Resilience and Reduced Stress

- **Meditation lowers cortisol levels:** Stress hormone reduction in regular practitioners
- **Increased gray matter in insula:** Heightens interoception (self-awareness), fosters resilience
- **Conclusion:** Greater ability to handle life's challenges with calm and resilience

Increased Compassion and Empathy

- **Growth in the insula and temporoparietal junction (TPJ):** Linked to empathy and compassion
- **Meditation practices like loving-kindness (metta):** Activate and strengthen these areas
- **Impact on relationships:** Greater connection, kindness, and understanding toward others

Health Benefits of Meditation-Induced Brain Changes

- **Immune function improvements:** Meditation boosts immune response
- **Anti-aging effects on the brain:** Meditation may preserve brain tissue, slowing age-related decline
- **General well-being:** Better physical health, mood, and quality of life reported in long-term meditators

Introduction – Iain McGilchrist’s Work on the Brain’s Hemispheres

- Iain McGilchrist is a British psychiatrist, literary scholar, philosopher and neuroscientist who wrote the 2009 book *The Master and His Emissary*, subtitled *The Divided Brain and the Making of the Western World*
- The left and right hemispheres each offer unique perspectives on reality
- Hemispheres create different “modes” of experience and perception, functioning very differently
- Early evolution – focusing on getting prey, other focus on holistic context
- Stroke victims, animal studies

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“The left hemisphere’s goals are centered on mastery, grasping, and control... It sees things as objects for use, and this attitude extends not only to inanimate objects but to other people, and ultimately to oneself.”

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- Iain McGilchrist

““ The right hemisphere, by contrast, has a deeper and more complete understanding of human interdependence and empathy, seeing ourselves not as isolated egos but as part of a whole, deeply interconnected with others and the world around us.” ”

- Iain McGilchrist

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“An imbalance favoring the left hemisphere not only impoverishes our experience but also erodes our capacity for moral responsibility and action. True understanding and ethical action require the holistic, contextual awareness that the right hemisphere brings.”

- Iain McGilchrist

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“The right hemisphere’s attention is more open, not seeking to judge or manipulate but to simply understand and engage. This openness is fundamental to compassion, as it allows us to see things from others' perspectives and to appreciate the world without the filter of the ego.”

- Iain McGilchrist

Connection with Buddha's teachings

- Interdependence
- Non-harming
- Respect for all living things and the natural world
- Compassion
- Purpose
- Beyond ego and self – No self

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"As a mother would risk her life to protect her child, her only child, even so should one cultivate a limitless heart with regard to all beings. With good will for the entire cosmos, cultivate a limitless heart: above, below, and all around, unobstructed, without enmity or hate."

Karuṇā-mettā Sutta, *Sutta Nipāta*

Dhammapada – Verse 5

- “In this world, hate never yet dispelled hate. Only love dispels hate. This is the law, ancient and inexhaustible.”