

Notes from Enhancing Our Creativity: Lessons from Neuroscience and Spirituality
February 26, 2017 Religious Education Congress
©2017 cardsbyanne Anne Kertz Kernion

“A spark of divine light is within each of us.” -Pope Francis

Our Creator goes on creating in the world through us.

1. Creativity expressed in a variety of ways: Teaching, cooking, letter-writing, planning meetings, etc.

2. -80% of our Intelligence is an inherited trait (genetic)

-Only 30% of our Creativity is genetic

Whether you are creative or not mainly determined by whether you THINK you are.

Creativity decreases as we age, unless we're proactive.

3. Formerly thought that after childhood, brain couldn't change much, if at all.

NOTHING is further from the truth. Even at rest, our brains are highly active.

4. Best creative work: levels of both serotonin and dopamine are high: “Calm but energized”

How to get into the creative state:

1. Get rid of stressors Cortisol rises with stress. Blocks the effect of serotonin.

2. Stop trying to be perfect, which creates stress. Be simple. Creative solutions often NOT complex. Blue surroundings boost creativity.

3. Get Sleep! Lack of sleep has negative effect on brain's response to serotonin. (Good sleep habits also help maintain our telomeres.) Subconscious can solve problems/be creative during slow-wave-sleep even though we're not conscious of the process: Fill your brain with new ideas and inspiration before bed.

4. Work quality often best in morning when serotonin levels tend to be highest.

5. Eat a high-protein breakfast.

6. Shape your workspace - fill with meaningful objects.

7. Caffeine: Will magnify your current emotions.

8. Search for inspiration and absorb: Look at art/listen to music. Go into nature, to a museum, sit in a beautiful building or park.

9. Exercise! Releases peptide that helps produce serotonin. Walk before or during a meeting. Helps maintain and lengthen telomeres: (45 minutes, 3 x per week.)

10. Both positive and negative emotions can drive creativity. Watch an inspirational documentary, read a moving story. Surround yourself with positive people.

11. Keep interested and curious: Diversifying experiences help people break their cognitive patterns. (Good for brain health, too!)

Ex: Travel to a new destination, take a class. Relearn a childhood skill. Take part in a new, different activity. (Must be active, not vicarious, to increase cognitive flexibility.) Push your comfort zone:

12. Be surprised/surprise others.

13. Read and talk to others in different disciplines.

14. Restrict yourself. Set internal restrictions. What can I do with what I have?

*Self-imposed limitations force creative people to work outside their comfort zone.

*Traffic accidents in German town, eliminated all the signs. No accidents in first month.

Everyone paid more attention.

“The more we limit ourselves, the more resourceful we become.” -Kierkegaard

15. Examine the problem in a different way. Ask different questions to get started.

16. Create distance. Imagine your creative task disconnected from your current location. Stepping away and coming back to it later highly effective.

-Higher ceilings encourage abstract thinking. (churches, etc.)

17. Daydream, reflect, or nap. After you've done some work.

Busyness thwarts creativity. Minimize interruptions. Subconscious creative processes aided by walking, skiing, snowshoeing, biking, gardening, swimming, etc.

Five Steps to the Creative Process:

1. Focus our Attention: Gather new material directly related to your task:
2. Connecting: Connect knowledge that may seem unrelated.
3. Step away from the problem. Put it completely out of your mind and do something that energizes you. Need incubation.
4. Return to idea. It will come back to you, often with renewed energy.
5. Get feedback. Ask for critique. Adapt.

Spiritual practices that increase our Creativity:

1. Mindfulness: Being fully present in the moment, not worrying about the future or rehashing the past. Meditation/silent prayer daily. Take mindful breaks throughout the day.

-Builds cognitive flexibility, cultivates "Incubation" and insight.

-Turns off "autopilot" in our brain, focus our attention on task. Research: We are more open to original ideas after even a brief meditation period.

Mindfulness effects our DNA. Increased psychological/social wellbeing of study participants, greater sense of connection, and more mindful awareness. (After just 12 weeks.) Significantly lower expression of inflammatory genes, and greater expression of genes boosting immunity. Research shows mindfulness increased activity in areas of the brain related to calm and focus. Time Magazine article: "Stress effects health at the cellular level: Chronic stress harms DNA by shortening telomeres, the protective caps on the end of chromosomes." "Some forms of meditation practice, (including mindfulness) may even slow the biological signs of aging by stabilizing telomeres." (Feb. 2016 TIME Magazine)
Mindful breathing tamps down stress reaction.

Our tradition on Meditation (silent prayer) and Mindfulness:

"Be still and know that I am God." Psalm 46:10

-In the 4th century, Desert Fathers and Mothers retreated to Egyptian desert with intense longing to live in the Divine Presence.

-In the 14th century, the author of The Cloud of Unknowing, a spiritual classic said: "Pay attention not to what you are, but to THAT you are." and "a naked intent direct to God is sufficient without anything else."

Br. Lawrence (lived in 17th c. France), wrote about what I call "Christian Mindfulness."

-All through the day, offer "little glance towards God. Offer your heart to God whenever you can."

- In the 1960's, the Trappist monk Thomas Merton recovered our contemplative tradition after being forgotten for several centuries. It is kept alive today by Fr. Thomas Keating and many others through Centering prayer/Contemplative Outreach.

Richard Rohr: “We cannot attain the presence of God because we're already in the presence of God. What's absent is awareness. Little do we realize that God's love is maintaining us in existence with every breath we take.”

Meditation/Contemplative Prayer: Sitting in God's presence

- Comfortable position, relax body
- Tune into the breath
- Sacred word
- Notice wandering, bring attention back to God

SUMMARY:

HEALTH: (These tips also help maintain our telomeres)

Eliminate/reduce stress

Get quality sleep and think about problem before bedtime: “Sleep on it”

Eat high-protein breakfast; morning usually best for work

Use caffeine if helpful

Exercise: helps lower stress, increases ideas & serotonin levels

ENVIRONMENT:

Take in/enjoy a wide range of activities

Set restrictions. Eliminate perfectionism.

Shape your workspace

Nurture happy relationships. Be inspired by others.

Get away, take a hike, nap, daydream, find high ceilings

ACTIVITY:

Observe and Absorb art, music, nature

Diversify your activities, try new ones

Cultivate Silence and Mindfulness (for our spirits and creativity!)

Bibliography:

The Brain That Changes Itself, by Norman Doidge

The Telomere Effect, by Elizabeth Blackburn, PhD and Elissa Epel, PhD

Mindset, by Carol Dweck

Creativity, by Mihaly Csikszentmihalyi

Flow, by Mihaly Csikszentmihalyi

Into the Magic Shop, by James Doty

The How of Happiness, by Sonja Lyubomirsky

The Practice of the Presence of God, Brother Lawrence of the Resurrection

Mindfulness, by Ellen Langer

On Becoming an Artist: Reinventing Yourself Through Mindful Creativity, by Ellen Langer

Seeds of Contemplation, Thomas Merton

Open Mind, Open Heart, by Fr. Thomas Keating

Desert Fathers and Mothers: Early Christian Wisdom Sayings, by Christine Valters Paintner, PhD

Christian Meditation, by James Finley

Rapt: Attention and the Focused Life, by Winifred Gallagher

Hardwiring Happiness, by Rick Hanson, PhD

Christian Meditation: Experiencing the Presence of God, by James Finley

