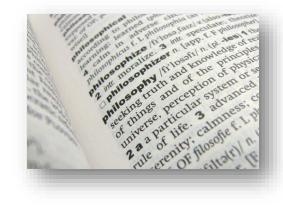


Positive Emotions: Science & Practice

Barbara Fredrickson, PhD, UNC-CH Psychology Mary Brantley, MA, LMFT, Duke Integrative Medicine

Sept 22, 2014

Working Definition of Emotion



- Brief
- Multi-component mind-body system
- Initiated by a meaning assessment
- Distinct from other affective phenomena
- Triggers a self-sustaining spiral

Positive vs. Negative Emotions

- Seldom concern threats
- Fewer ties to pathology
- Less salient
- More diffuse
- More frequent
- More ties to oneness & self-transcendence
- Time Future vs. Time Present
- Upward vs. Downward Spirals
- Species-survival vs. Self-survival

Two Modes of Being



Self-Survival



Species Survival

Plasticity



Loving-Kindness Meditation (LKM)



Classic Phrases of LKM

- May [you] feel safe.
- May [you] feel happy.
- May [you] feel healthy.
- May [you] live with ease.



Let's Try It



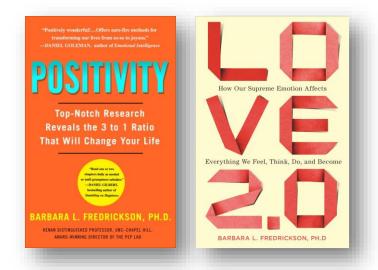
Ode to the PEP Lab Spice PEP Lab





Thanks also to the U.S. National Institutes of Health (NCI, NINR, NCCAM, NIMH, The Common Fund) for past & current funding

The Broaden-and-Build Theory of Positive Emotions



www.PositiveEmotions.org www.PositivityResonance.com

Fredrickson (1998). *Review of General Psychology, 2*, 300-319.
Fredrickson (2001). *American Psychologist, 56*, 218-226.
Fredrickson (2013). *Advances in Experimental Social Psychology*, 47, 1-53.

Positivity **Broadens** Awareness



Fredrickson & Branigan (2005). Cognition & Emotion, 19, 313-332.

Positivity **Broadens** Awareness



Fredrickson & Branigan (2005). Cognition & Emotion, 19, 313-332.

...and Builds Resources

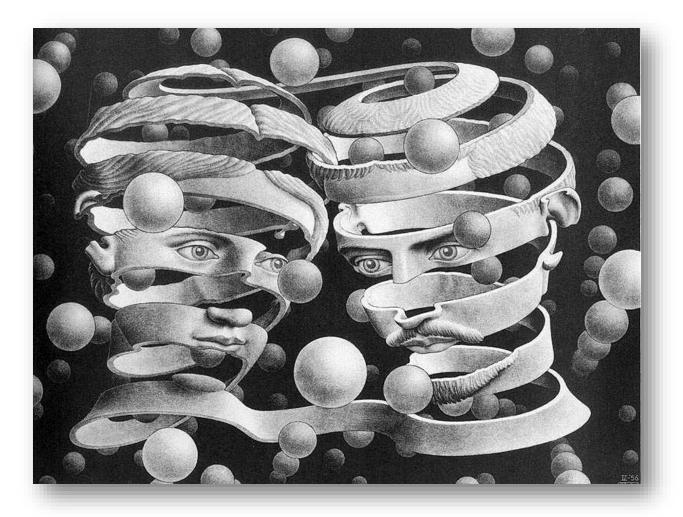


Fredrickson et al. (2008). Journal of Personality and Social Psychology, 95, 1045-1062.

Positive Emotions Unlock Other-Focused Thinking

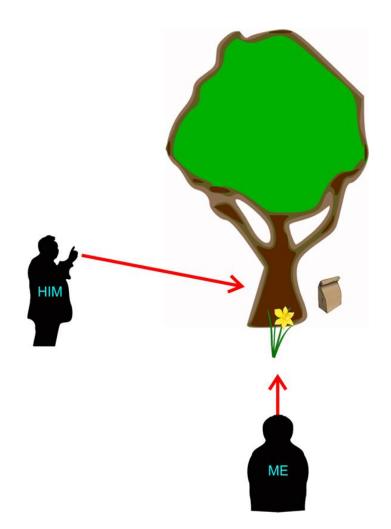


More Inclusion of Other in the Self



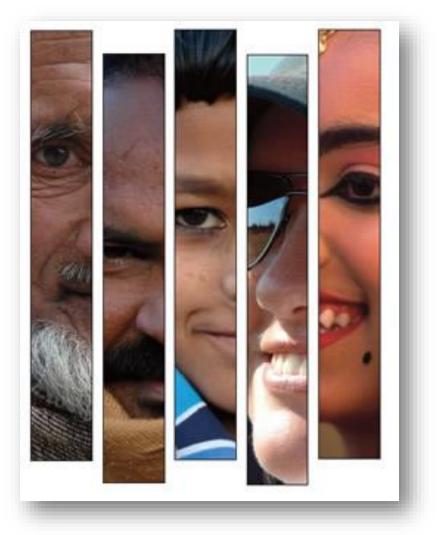
Waugh & Fredrickson (2006). Journal of Positive Psychology, 1, 93-106.

Better Perspective Taking



Waugh & Fredrickson (2006). Journal of Positive Psychology, 1, 93-106.

More Oneness



Johnson & Fredrickson (2005). Psychological Science, 16, 875-881.

From Positivity to Positivity Resonance



What Love is Not...

✓ Sexual Desire
 ✓ A Special Bond
 ✓ Commitment
 ✓ Exclusive
 ✓ Lasting
 ✓ Unconditional

What Love is *Not*...





- Two views from relationship science:
 - "Investment in the well-being of the other for his or her own sake" (IWB; Hegi & Bergner, 2010).
 - Perceived Responsiveness, or "gets me", i.e., feel understood, validated, and cared for (Reis, Clark & Holmes, 2004)
- What emotion science can add:
 - Biobehavioral components
 - A momentary lens
 - A broaden-and-build theoretical backdrop





 an interpersonally situated experience marked by momentary increases in:

 $\ensuremath{\circ}$ shared positive emotions;

biobehavioral synchrony;

mutual care;

which, over time, builds:

 embodied rapport (e.g., we really "clicked");
 social bonds;
 commitment.

Fredrickson (2013). Love 2.0.



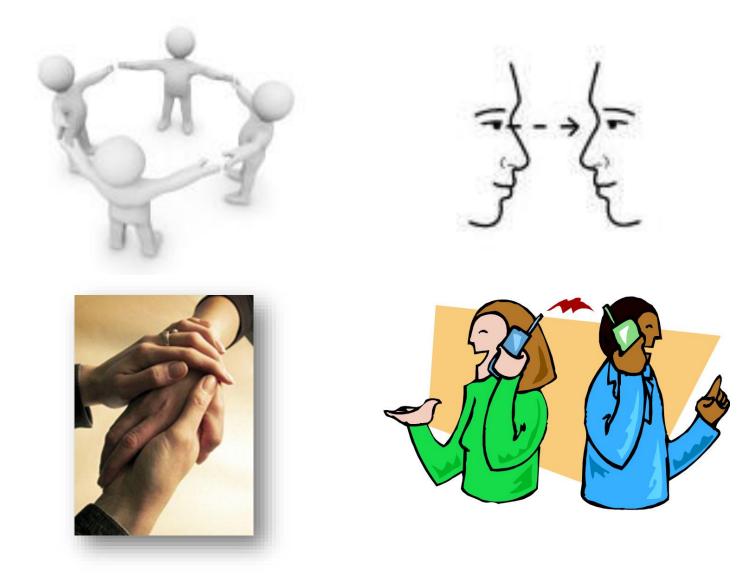
Positivity Resonance

Love's 1st Precondition: Safety



Image from Living Links Center, Emory University; Frans de Waal, Director

Love's 2nd Precondition: Connection



Smiles Draw Attention



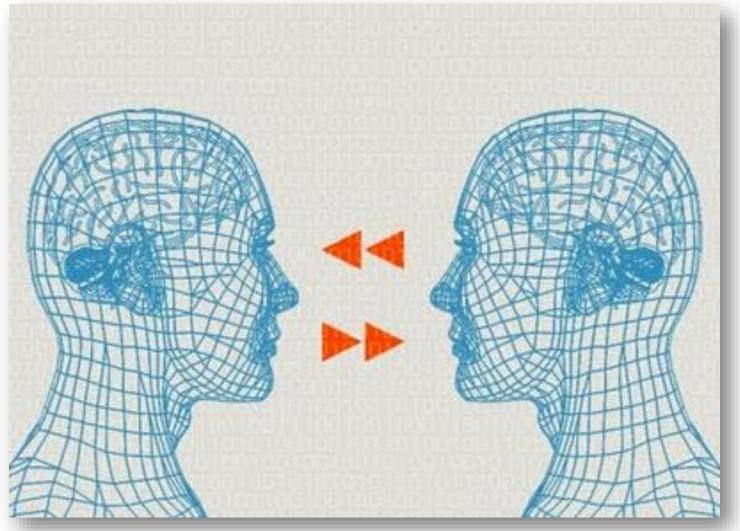
Becker et al. (2011). Journal of Experimental Psychology: General, 140, 637-659.

Eye Contact Causes Mimicry



Schrammel et al. (2009). Psychophysiology, 46, 922-931.

Mimicry Creates Inter-Subjectivity



Niedenthal et al., (2010), Behavioral and Brain Sciences, 33, 417-480.

Biobehavioral Synchrony: Acting as One



Biobehavioral Synchrony: Acting as One



Felix Gonzalez-Torres, "Untitled" (Perfect Lovers) 1991.

Behavioral Synchrony



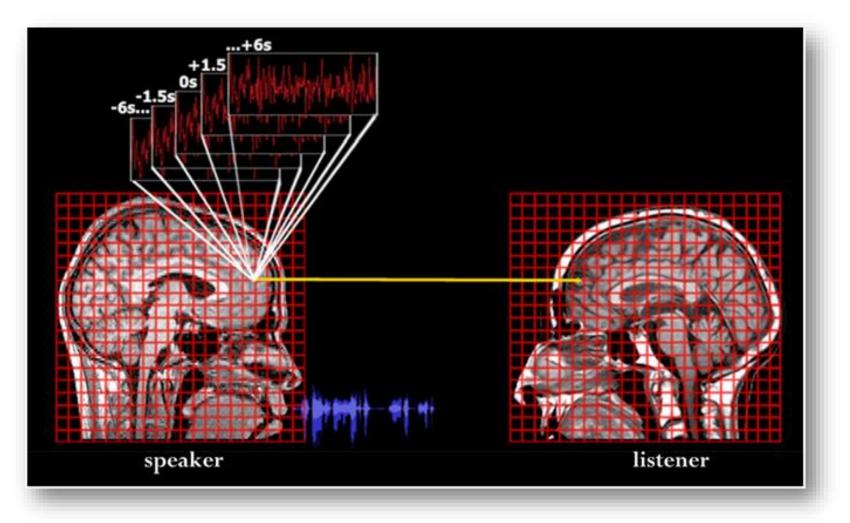
Vacharkulksemsuk & Fredrickson (2012). JESP, 48, 399-402.

Oxytocin Synchrony



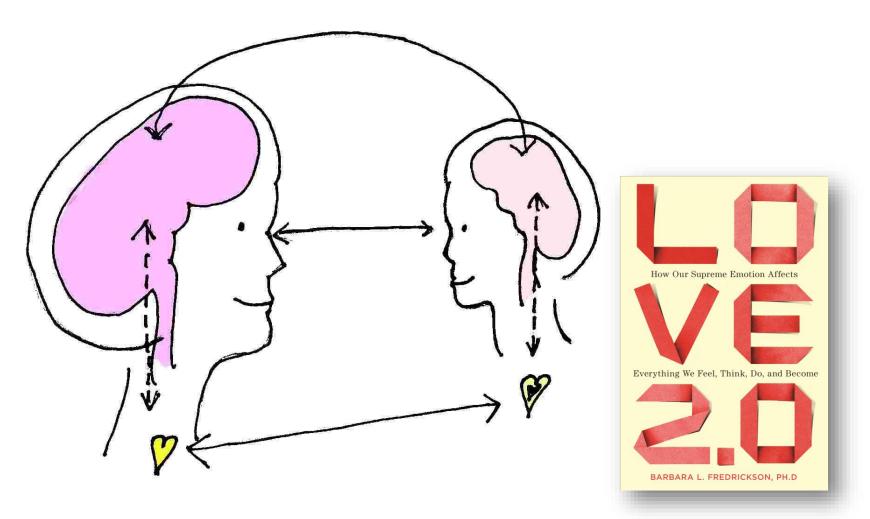
Feldman, Gordon, & Zagoory-Sharon (2010). Hormones and Behavior.

Neural Synchrony



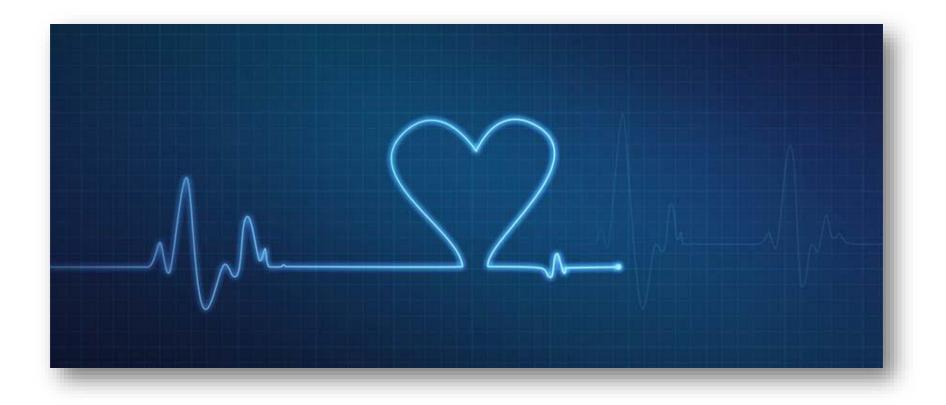
Stephens, Silbert & Hasson, 2010, PNAS, 107, 14425-14430.

Love is Positivity Resonance



Fredrickson (2013). Love 2.0.

Love and Health



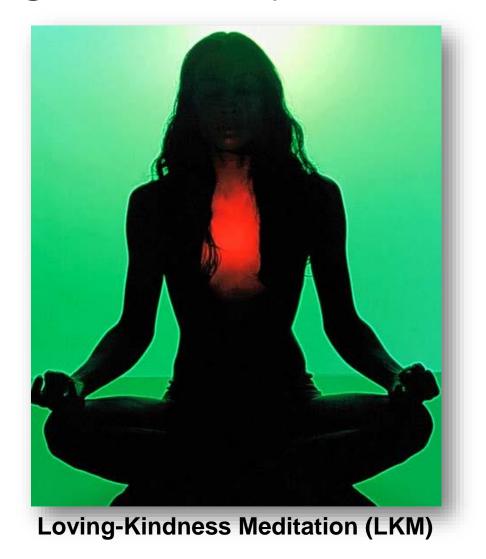
Changing Daily Diets



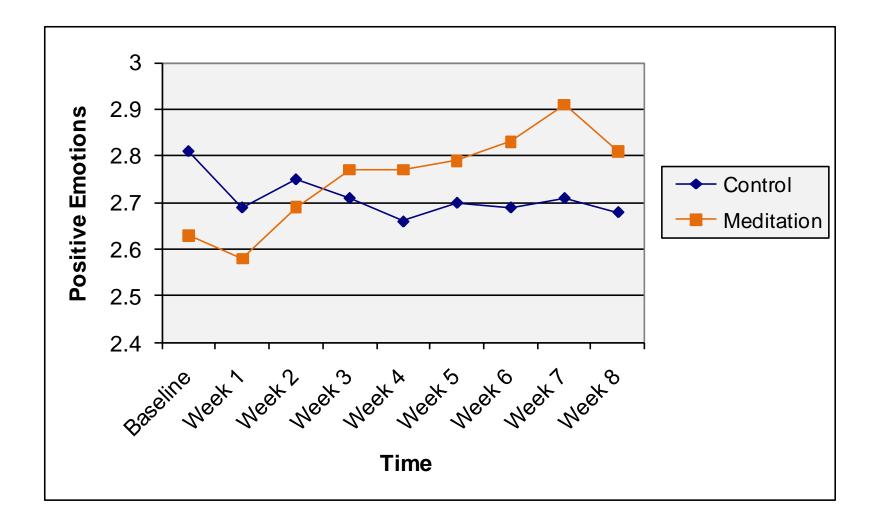
Lifestyle Change



Seeding Positivity Resonance

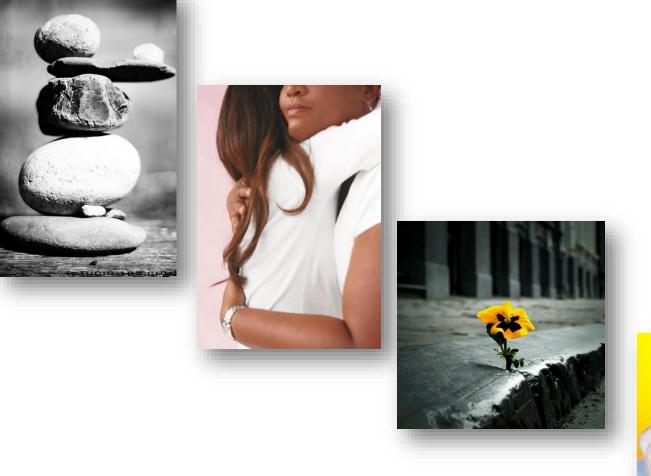


Increases Positivity...



Fredrickson et al. (2008). Journal of Personality and Social Psychology, 95, 1045-1062.

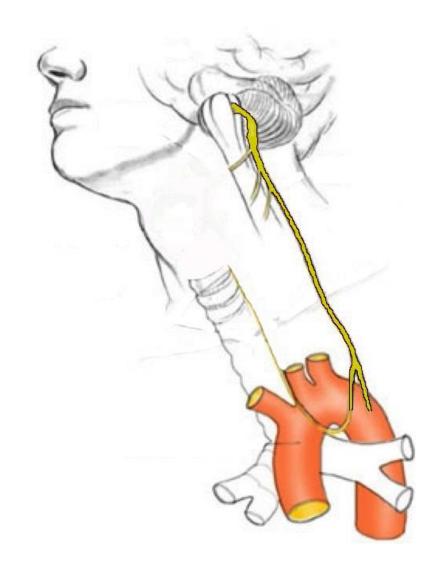
...Builds Resources



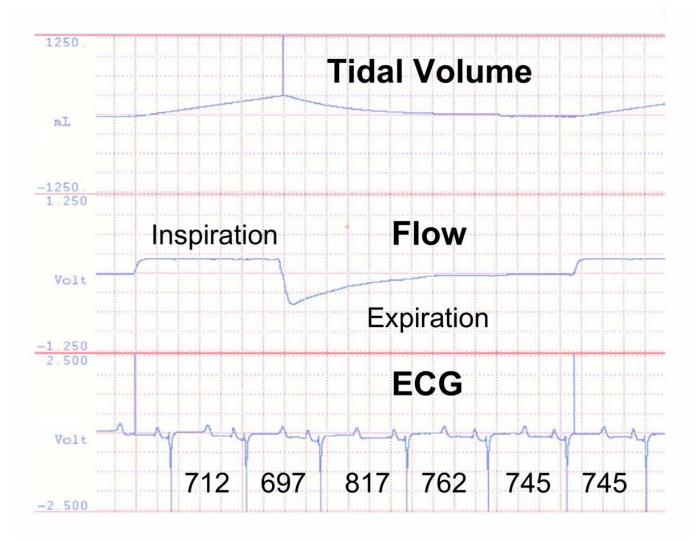
Fredrickson et al. (2008). JPSP, 95, 1045-1062.



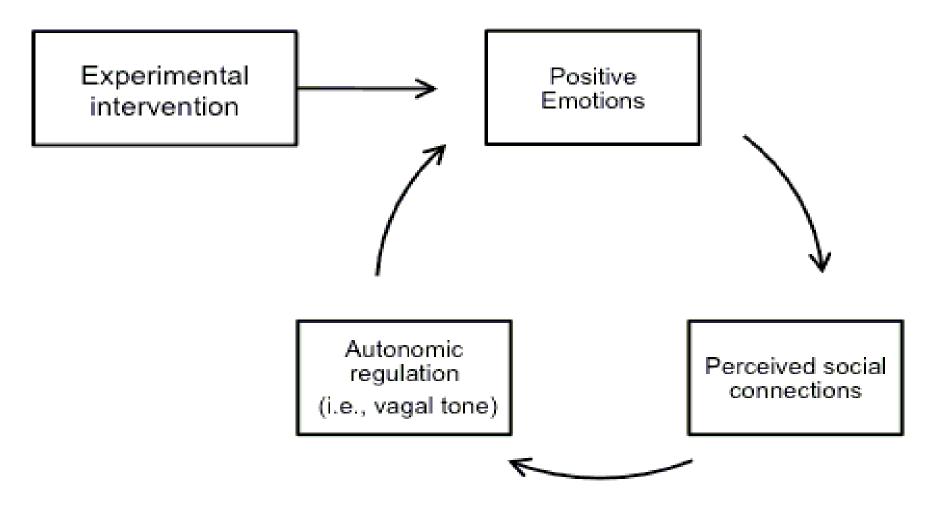
The Vagus Nerve



Cardiac Vagal Tone

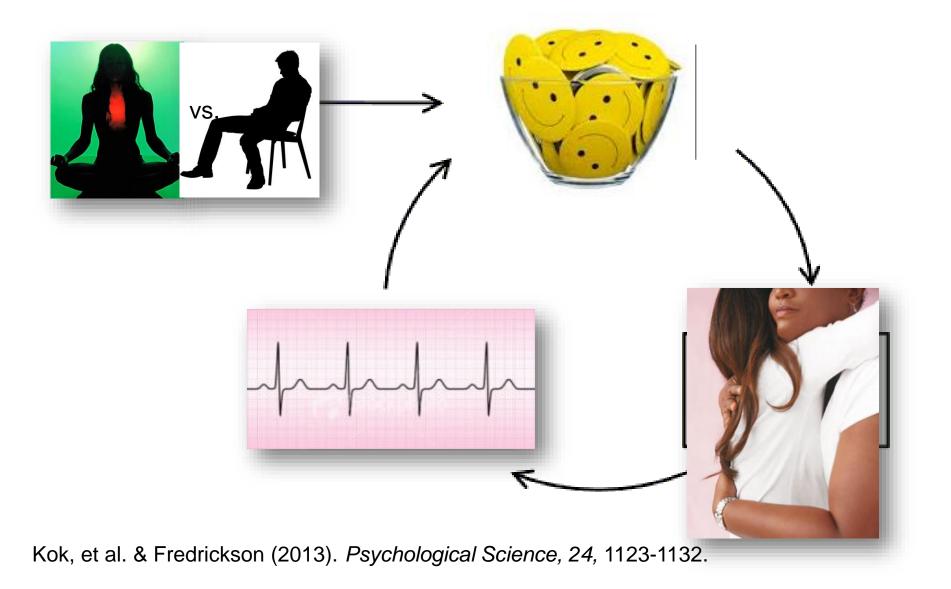


Cardiovascular Effects



Kok, et al. & Fredrickson (2013). Psychological Science, 24, 1123-1132.

Cardiovascular Effects



Cellular Effects

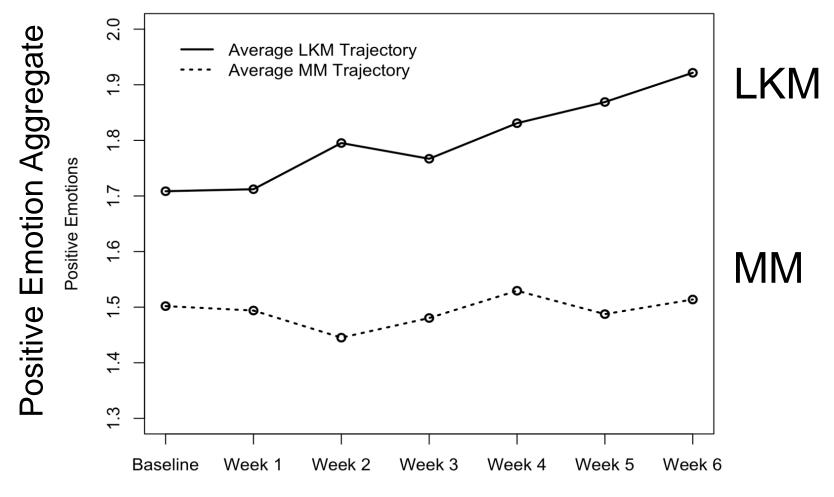


Loving-Kindness Meditation (LKM)

Randomized Controlled Trial: Effects of LKM



Loving Kindness Meditation Increases Daily Positive Emotions



Time

Functional Genomics Approach



Steve Cole, Director UCLA Social Genomics Core Laboratory



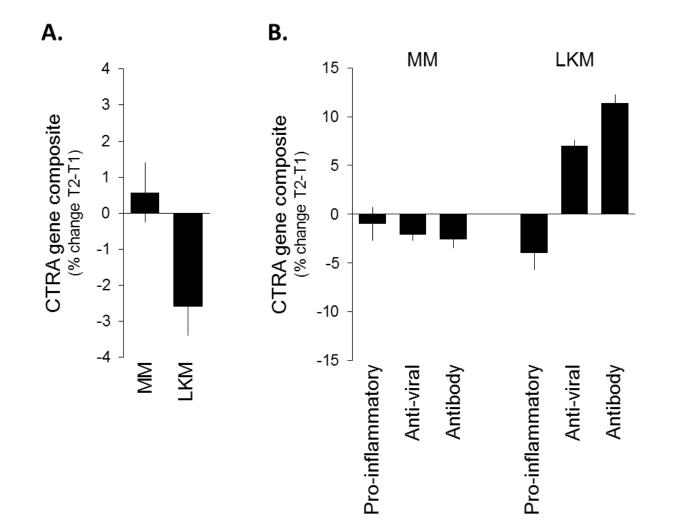
Our a priori "Region of Interest":

Conserved Transcriptional Response to Adversity (CTRA): Evidence based 52 gaps composite that reflects:

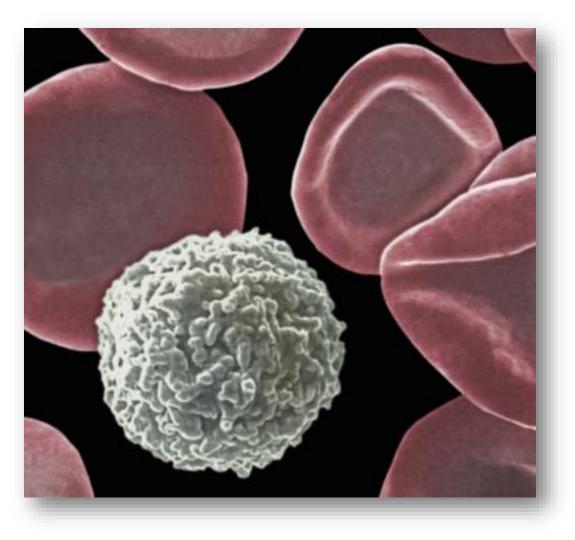
- Evidence-based 53-gene composite that reflects:
 - -- increased expression of proinflammatory genes
 - -- decreased expression of antiviral genes
 - -- decreased expression of antibody synthesis genes

Cole, S. W. (2009). *Current Directions in Psychological Science, 18*, 132-137. Fredrickson et al. & Cole (2013). *PNAS, 110*, 13684-13689.

LKM reduces adversity-related patterns of gene expression



LKM alters molecular physiology



Fredrickson, et al., & Cole (in preparation).

What's a Smile For?



- To express positivity (Ekman, 1975);
- To evoke positivity (Bachorowski & Owren, 2003);
- To evoke inter-subjectivity (Niedenthal et al., 2010);
- To broaden collective mindsets and build collective resources (Gervais & Sloan Wilson, 2005);
- ALL OF THE ABOVE: To create the lifegiving nutrient of positivity resonance (Fredrickson, 2013).

LOVE IS ...micro-moments of positivity resonance



a.k.a., *"day-to-day micro-utopias"* -- Nicholas Bourriaud (1998)



"Love doesn't just sit there, like a stone; it has to be made, like bread; remade all the time, made new."

- Ursula K. Le Guin

Loving Kindness Meditation

with Mary Brantley, MA, LMFT

What Meditation Is Away of providing

- Greater calm
- Improved concentration & increased awareness
- An enhanced connection to others
- More effective responses to difficulties and stress
- Renewed energy and balance

What Meditation sn't

- It is not a religion
- It doesn't require special skills
- It doesn't demand a huge amount of your time every day
- It isn't an attempt to stop thinking
- It doesn't eliminate sadness or rough patches from your life

Core Principles in Meditation Practices (from Christina Feldman)

- Attention
- Awareness
- Understanding and Compassion

What is Loving-Kindness?

Loving-Kindness is a basic human response of friendliness and kindness. It exists as a seed or a potential that can be cultivated by anyone.



Loving-kindness means great friendliness to self and others. It is a well of kindheartedness and wholesome deeds that are freely shared.

Loving-kindness is classically taught along with meditations that develop

Compassion Sympathetic Joy Equanimity

Qualities That Support and Enrich Loving-Kindness Practice

- Generosity
- Forgiveness
- Gratitude



Directing phrases to the following five groups.

- Yourself
- A loved one, good friend, benefactor, teacher
- A person you feel neutral about
- A challenging person
- All people

Practicing Loving-Kindness Using Phrases

Loving-Kindness Phrases

May | be happy
May | be healthy
May | be peaceful
May | be safe



The Way We Practice with the Phrases Is:

- Attending to one phrase at a time
 Don't rush
- When your mind wanders, notice and come back to the phrases
- Keep repeating the phrases



Real Happiness The Power of Meditation

By Sharon Salzberg www.sharonsalzberg.com



"The most practical thing we can achieve in any kind of work is insight into what is happening inside of us as we do it. The more familiar we are with our inner terrain, the more surefooted our teaching - and living-becomes." -Parker Palmer

Loving-Kindness for Caregivers



- May | offer my care and presence unconditionally, knowing it may be met by gratitude, indifference, anger or anguish.
- May | find the inner resources to truly be able to give.
- May | offer love, knowing | cannot control the course of life, suffering or death.

- May | remain in peace and let go of expectations.
- | care about your pain and | cannot control it.
- | wish you happiness and peace and | cannot make your choices for you.
- May this experience help me open to the true nature of life.



Ways of Developing Kindness Toward Yourself

- Spend time reflecting on the good you have done
- Thínk of someone who has helped you, been kínd to you
- · Spend some time each day in self-care
- · Repeat one phrase in times of difficulty

Practice one act of generosity a day
Keep a gratitude journal
Go out in nature



Factors that get in the way of practice

Don't think you have time
Can't remember to meditate
Don't believe that it can make a difference
Don't think you are doing it right

You do not have to separate your meditation from your life.

Formal and Informal Practice



Practical Suggestions to Support Formal Meditation Practice

Choosing time of day
Choosing your location
Deciding how much time you practice

Knowing your motivation
Summoning determination
Practicing gratitude
Remembering to include yourself



How to Develop

Informal

Loving-Kindness Practice

Keep it simple!



Learn one phrase that is meaningful to you and repeat it often for yourself



 Direct kindness toward yourself or others throughout the day.

 Send kind thoughts to yourself if you are upset, worried, feeling low, can't sleep.

 You can direct thoughts of compassion to your clients.

Practical things to support your effort

Practice meditation diligently
Spend time with like-minded friends, exchange ideas
Read inspiring books
Join a practice group or class

Ten thousand flowers in spring, The moon in autumn, A cool breeze in summer, Snow in winter-If your mind is not clouded By unnecessary things, This is the best season of your life.

-Wu Men



Thank you

