The Greater Good Gratitude Summit
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Welcome from Rodolfo Mendoza-Denton
VIDEO

The Greater Good Gratitude Summit
JUNE 7, 2014
Expanding the Science and Practice of Gratitude

Presentation by
Robert Emmons
Professor of Psychology, UC Davis
Sir John Templeton

- “When we will our minds with blessings and gratitude, an inner shift in consciousness can occur. As we focus on the abundance in our lives rather than what we lack, a wonderful blueprint for the future begins to emerge”
a Science of Virtue

in Dallas to explore gratitude

Left to right, back row: Mike McCullough, Edward Harpham, Charles Shelton, Dan McAdams, Barbara Frederickson, Bob Emmons, Frans de Waal, James Russell, Daniel Uvanovich, Chuck Harper; Front row: Mary Ann Myers, Arthur Schwartz, Jo-Ann Tsang, Yvonne Emmons, Brother David Steindl-Rast, Elizabeth Cantor, Philip Watkins.
PsycINFO search on gratitude in adults

Year

Hits in peer-reviewed outlets
Gratefullyness Increases Emotional Well-Being

Grateful People Achieve More

Journal of Research in Personality, 2007
The role of gratitude in the development of social support, stress, and depression – Wood, Maltby, Gillett et al


Grateful People Get Along Better with Others

Clinical Psychology Review, 2009
Gratitude and well-being: A review and theoretical integration – Wood, Emmons, Gordon

Psychological Science, 2006
Gratitude and Prosocial Behavior: Helping When It Costs You – Bartlett, DeSteno

Grateful People Pay It Forward

American Psychologist, 2005
Positive Psychology Progress - Seligman, Steen & Peterson

Behaviour Research and Therapy, 2006
Gratitude and hedonic and eudaimonic well-being in Vietnam war veterans – Kashdan, Uswatte, Julian

Grateful People Are Less Depressed

Grateful People Are More Resilient to Trauma
Gratitude has the power to heal, to energize, and to change lives.
Making Grateful Kids: The Science of Building Character
by Jeffrey J. Froh and Giacomo Bono

Gratitude and the Good Life: Toward a Psychology of Appreciation
by Philip C. Watkins

The Psychology of Gratitude
Edited by Robert A. Emmons and Michael E. McCullough

The Gratitude Factor: Enhancing Your Life through Grateful Living
by Charles M. Shelton, PhD

Gratitude Works!: 10 Practices for Creating Emotional Prosperity
by Robert A. Emmons

Thanks!: How Practicing Gratitude Can Make You Happier
by Robert A. Emmons, PhD
Expanding The Science and Practice of Gratitude RFP: Research Grants and Dissertations

• Nearly 300 LOI’s received
• 63 full proposals invited; 14 funded projects

1. Physical Health
2. Development
3. Social Contexts
4. Practice
Sara Algoe, Assistant Professor/Director, Emotions and Social Interaction Laboratory, Department of Psychology, UNC-Chapel Hill: “Unpacking the Mechanisms of Gratitude’s Benefits within Close Relationships”

Yarrow Dunham, Visiting Assistant Professor of Psychology, Princeton University: “Gratitude in Development: Cognitive and Normative Contexts”

Naomi Eisenberger, Assistant Professor, Department of Psychology/Director, Social and Affective Neuroscience Laboratory, University of California, Los Angeles: “Giving Thanks: Is “Giving” Key to the Heath Benefits of Gratitude?”

Tom Gilovich, Professor, Department of Psychology, Cornell University: “Cultivating Gratitude in a Consumerist Society”

Jeff Huffman, Director of Cardiac Psychiatry Research Program, MGH/Assistant Professor of Psychiatry, Harvard Medical School: “The Impact of Gratitude on Biology and Behavior in Persons with Heart Disease”

Andrea Hussong, Director, Center for Developmental Science/Professor of Psychology, UNC-Chapel Hill: “The Socialization of Gratitude through Parent-Child Interaction”

Christina Karns, Postdoctoral Research Associate Brain Development Lab, University of Oregon: “Neural Systems Supporting Gratitude”
Debra Lieberman, Professor, Evolutionary Psychology, Department of Psychology, University of Miami: Gratitude: “A Basic Human Emotion for Initiating Friendships”

Wendy Berry Mendes, Sarlo/Ekman Associate Professor of Emotion at UC San Francisco: “Effects of Measured and Manipulated Gratitude on Biomarkers of Health and Aging”

Joel Meyers, Professor, Department of Counseling and Psychological Services, Georgia State University: “A Model of Bullying Based on Gratitude and its Effects on Social Bonds”

Laura Redwine, Assistant Professor, Department of Psychiatry, UC San Diego: Gratitude in Pre-symptomatic Heart Failure: “Effects on Health-Related Physiological Outcomes and Clinical Disease Progression”

Kristin Shutts, Assistant Professor, Director of the Social Kids Lab, University of Wisconsin: “Effects of Gratitude on Children’s Social Attitudes and Prosociality”

Frans de Waal, C. H. Candler Professor of Primate Behavior, Emory University: “Gratitude and Partner Preference in Chimpanzee Cooperation”

Joel Wong, Associate Professor, Dept of Counseling and Educational Psychology, University of Indiana: “The Use of a Gratitude Writing Intervention With Psychotherapy for Outpatient Clients: Examining Neural Correlates and Psychosocial Mechanisms”
Science and Practice

• Promote evidence-based practices of gratitude in medical, educational, and organizational settings
• In schools, workplaces, homes, communities
• How can we get 6 billion people around the world to practice gratitude?

(October 13th, 2000)
Announcing Thnx4.org!

The Greater Good Science Center is launching a web-based, interactive, shareable gratitude journal—that also serves as a scientific tool for understanding what it means when we say “thank you.”

Thanksgiving is coming up. But what does it mean to give thanks? And do we say “thank you” enough?

That’s what UC Berkeley’s Greater Good Science Center is trying to find out with a new, interactive, shareable gratitude journal called Thnx4.org, which officially launches on November 1, 2012. It’s part of a $5.6 million, three-year project called Expanding the Science and Practice of Gratitude, funded by the John Templeton Foundation.

Thnx4.org represents a unique cross-disciplinary collaboration. It was conceived by GGSC editor-in-chief Jason Marsh. His colleagues Jeremy Adam Smith, Emillana Simon-Thomas, and Dacher Keltner worked with UC Davis psychologist Robert Emmons, the design and development company Quilted, and game designer Chelsea Howe—one of Fast Company’s “100 Most Creative People in Business 2012”—to develop Thnx4.org.

For individual users, Thnx4.org provides a guided two-week exercise designed by experts to make gratitude a daily practice. Every day, they’ll get tips on enhancing gratitude and they’ll be able to keep a private journal and say “thnx” publicly through Facebook, Twitter, or email. In the end, they’ll find out how 14 days of gratitude awareness affected their mood and health—and they’ll be able to read expressions of gratitude from other people in their community.

After they complete the two-week Gratitude Challenge, they’ll be able to keep using Thnx4.org to capture moments of thankfulness and find out what makes their community feel grateful.

For scientists, it provides a source of research data that will be used to study the causes, effects, and meaning of gratitude. Researchers will be able to explore questions such as:

- Does a moment of thankfulness statistically predict the likelihood of a pay-it-forward response?
- Which gender is more likely to spread gratitude? Do men tend to feel grateful for different things than women?
- Does gratitude practice have any discernible racial, ethnic, or regional variations?
- Does expressing gratitude toward people of different races affect prejudice?
- Does gratitude mitigate the effect of burnout in health care settings?
- Does there tend to be an ebb and flow of gratitude over our lifetimes?

Thnx4.org launches on November 1 with the “Cal Gratitude Challenge”—an invitation to students, staff, faculty, and alumnii of the University of California, Berkeley, to say “thnx” every day for two weeks. However, anyone, anywhere, can take the Gratitude Challenge. To get started, just go to Thnx4.org and register.

- If you are a researcher interested in using Thnx4.org, please contact gratitude@berkeley.edu
- If you’d like to bring a Gratitude Challenge to your campus, company, or community, contact gratitude@berkeley.edu

http://greatergood.berkeley.edu/news_events/announcement/announcing_thnx4.org
“The supreme moments in the life of each of us occur whenever we grasp a new inspiring truth and appropriate it so that it revitalizes our personality and becomes an inspiration for our life”

Possibilities, p, 158
Three Foundational Stones of Gratitude:

1. Look for the good (Joy)
2. Receive the good (Grace)
3. Give back the good (Love)
BOOST! West Oakland
Mentoring gratitude in elementary school students

Jessica Reyes, Project Director
Jim Freschi (tutor) & Maurice Patton (student)
David Johnston (tutor) & Alan Romero (student)
The Spirit of Gratitude

With Jack Kornfield & Brother David Steindl-Rast
The Greater Good Gratitude Summit
The Gratitude Effect:
Physical, Psychological and Social Benefits of Gratitude

Panelists: Christina Karns, Wendy Mendes, Jeffrey Huffman & Philip Watkins

Moderator: Emiliana Simon-Thomas
Chimpanzee

Human
Chimpanzee  Human
Giving

Life Satisfaction

Greater Good Science Center
Gratitude

I am grateful for...

Giving

Life Satisfaction

Greater Good Science Center

Berkeley University of California
Giving

Gratitude

I am grateful for...

Life Satisfaction
Gratitude

I am grateful for...

Giving

Life Satisfaction
Dopamine

Serotonin
Dopamine

Serotonin
unsatisfied  satisfied
ME

FOOD BANK

Greater
Good
Science
Center

Berkeley
UNIVERSITY OF CALIFORNIA
1 2 3 4
unsatisfied satisfied
unsatisfied   satisfied
Costly Donation
Vs.
Self Loss
Individual variability in midbrain response

Costly Donation vs. Self Loss
Individual variability in midbrain response

Costly Donation vs. Self Loss
Gratitude

Ethical Norms

Intrinsic Religiosity

Activism/Causes

Life Stress events

Life Satisfaction
Individual variability in midbrain response

Costly Donation
vs.
Self Loss
Ethical Norms

Individual variability in midbrain response

Costly Donation vs. Self Loss
Individual variability in midbrain response

Costly Donation vs. Self Loss

Ethical Norms
Intrinsic Religiosity
Individual variability in midbrain response

Costly Donation vs. Self Loss

Ethical Norms  Intrinsic Religiosity  Gratitude
Individual variability in midbrain response

Costly Donation vs. Self Loss

Ethical Norms  Intrinsic Religiosity \[\text{Gratitude}\]
INCIIDENTALLY, WHAT IS HAPPINESS?
HAPPINESS IS A WARM PUPPY
<table>
<thead>
<tr>
<th></th>
<th>ME</th>
<th>CHARITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self Gain</strong></td>
<td>+5, 10, 15</td>
<td>0</td>
</tr>
<tr>
<td><strong>Charity Gain</strong></td>
<td>0</td>
<td>+5, 10, 15</td>
</tr>
<tr>
<td><strong>Self Loss</strong></td>
<td>-5, 10, 15</td>
<td>0</td>
</tr>
<tr>
<td><strong>Costly Donation</strong></td>
<td>-5, 10, 15</td>
<td>+5, 10, 15</td>
</tr>
<tr>
<td><strong>Neutral (Implicit Baseline)</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Effects of gratitude on biological markers of health and aging

Wendy Berry Mendes
Sarlo/Ekman Professor of Emotion
UC San Francisco
How does “X” get under the skin to affect health?
How does gratitude “get under the skin” to affect health and longevity?
Specific Aims

1: Individual differences approach: What evidence is there that gratitude is related to better health and longevity?

2: Experimental approach: Manipulate gratitude with a social manipulation and (intranasal) oxytocin

3: Field study approach: Examine how social experiences affect daily functioning health behaviors promoting and sleep quality

4: Bridging aims: Looking across these contexts to create a mosaic of the experience of gratitude
Possible pathways linking gratitude to health

Oxytocin pathway

Potentiated behavior pathway

Vagal pathway

Stress pathway

POSITIVE EMOTIONS

Stress Arousal

CELL AGING

Oxidative stress

Greater Good Science Center

Berkeley University of California
Four inter-related studies

• Recruited and prescreened; Completed on-line measures (N=128)
  – GRAT scale; Depression; Anxiety; Rejection Sensitivity; PSQI: Sleep quality scale with a partner report

• Lab Study (N=125)
  – Standardized social stress task
  – Suite of autonomic nervous system responses at rest and during stress
  – Neuroendocrine responses at rest/stress/recovery
  – Cheek swab for telomeres/telomerase
Four inter-related studies

- **Blood draw (N=37)**
  - CRC (during women’s follicular stage)
  - Fasting blood draw in the morning
  - Standard screen (cholesterol, lipids, creatinine, c-reactive protein, etc)
  - Circulating angiogenic cells (endothelial progenitor cells)

- **Sleep study (N=28; target N=40)**
  - Collect two nights of on-line PNS responses (i.e., heart rate variability) as well as actigraphy, which provides dynamic information regarding sleep quality and duration
  - On the second night, we introduce a “stressor” before scheduled sleep time
  - Following the two night sleep study, the participant completes a 5 day study in which we collect saliva for diurnal cortisol cycle (waking, CAR, and late evening) in addition to on-line experience sampling
Ambulatory Monitors
Higher levels of gratitude with...

• Well-being
  – Anxiety: $r = -0.38$; Optimism: $r = 0.44$; Neuroticism: $r = -0.28$; Depression: $r = -0.34$

• Social connectedness
  – Race rejection sensitivity: $r = -0.34$; Social dominance: $r = -0.20$

• Emotional expression
  – Anger: $r = -0.38$

• Sleep quality
  – Overall quality: $r = -0.23$
Gratitude correlates with biological markers of health....

- **Blood pressure at rest and reactivity**
  - SBP$_{\text{rest}}$: $r = -.39$; DBP$_{\text{rest}}$: $r = -.40$
  - SBP$_{\text{reactivity}}$: $r = -.34$; DBP$_{\text{reactivity}}$: $r = -.32$

- **Links with blood screen**
  - HDL: $r = .40$
  - LDL: $r = -.23$
  - Creatinine: $r = -.45$
Endothelial progenitor cells are believed to support the integrity of the vascular endothelium.

The number and function of EPCs correlate inversely with CV risk factors.

The number of baseline circulating EPCs predicts the occurrence of cardiovascular events over 12 months.

Werner et al., 2005, NEJM
Adults who reported better maternal care when young had greater levels of Migrating CACs.

This relationship helps when controlling for age and gender.
Higher levels of anxiety are associated with less cell mobility in response to VEG-F and less glucocorticoid responsiveness.
With Gratitude.....

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Sarlo/Ekman endowment

JOHN TEMPLETON FOUNDATION
SUPPORTING SCIENCE - INVESTING IN THE BIG QUESTIONS

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Berkeley
UNIVERSITY OF CALIFORNIA
Gratitude and Disease
(aka Tales from the Hospital Wards)

Presentation by
Jeff C. Huffman, M.D.
Director, Inpatient Psychiatry Service & Cardiac Psychiatry Research
Massachusetts General Hospital/Harvard Medical School
Gratitude in Medical Illness

• Gratitude is a powerful psychological state following an acute medical event—but not everyone feels grateful.

• There has been little specific study of gratitude’s impact on medical illness.

• An acute coronary syndrome (ACS) is an obvious medical condition in which to study gratitude.
Aim #1

Aim #2

Aim #3

Figure 1. Conceptual model highlighting areas of focus for trial.
# Timeline of Study Assessments

<table>
<thead>
<tr>
<th>3 Months</th>
<th>6 Months</th>
<th>2 Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Screening</td>
<td>• Assessment of:</td>
<td>• Repeat self-report measures and biomarkers</td>
</tr>
<tr>
<td>• Enrollment</td>
<td>• Gratitude</td>
<td>• Hospital readmissions</td>
</tr>
<tr>
<td>• Baseline physical activity</td>
<td>• Health Behaviors</td>
<td>• Physical activity (accelerometer)</td>
</tr>
<tr>
<td>• Basic demographic and medical information</td>
<td>• Quality of Life</td>
<td>• Provision of accelerometer</td>
</tr>
<tr>
<td></td>
<td>• Function</td>
<td></td>
</tr>
</tbody>
</table>
Results

Higher levels of gratitude 2 weeks after ACS were linked to:

- Greater adherence to healthy behavior
- Superior mental health-related quality of life
- Not linked to function or physical quality of life
Next Steps in GRACE

• Assessments at 6 months
  – Effects on behavior, QoL, function

• Objective measurements of biology & behavior
  – Biomarkers measured in the blood
  – Steps on step counter

• Effects on readmissions to the hospital

• Coming (very!) soon
Gratitude in Psychiatric Illness

• Positive psychological states
  – Not just ‘the opposite of depression’
  – Linked to reduced suicidal thoughts and suicide attempts above and beyond effects of (-) states

• Gratitude
  – May be particularly important in reducing suicide
  – Especially when combined with ‘grit’
Gratitude in Disease

• Which factors may link gratitude to superior outcomes in medical and psychiatric illness?
  – Social factors—protective against:
    • Hopelessness/suicide
    • Cardiac events
  – Biological effects—benefits on:
    • Hormones, inflammation, blood vessels, blood clotting
  – Healthy behaviors—increased participation in:
    • Physical activity, healthy eating, smoking cessation
    • “Behavioral activation”
Where do we go from here?

• Learning more
  – GRACE study, Mendes/Karns/Watkins/Emmons...

• Cultivating gratitude
  – HOPE: trial in suicidal depression
  – PEACE: development in ACS patients
Cognitive and Social Benefits of Gratitude

Presentation by
Philip Watkins
Eastern Washington University
"In ordinary life we hardly realize that we receive a great deal more than we give, and that it is with gratitude that life becomes rich."

~Bonhoffer
How does gratitude help us live well?

Gratitude enhances well-being by amplifying the good in one’s life.
Gratitude as the Amplifier of the Good
Gratitude may amplify the good...

- In your emotional experience
- In your ability to cope
- In cognitive processes
- In your relationships
How might gratitude train happy habits of thought?

How gratitude trains your brain for happiness...
Grateful Recounting Produces a Pattern of Well-Being Growth

A Randomized Controlled Treatment Study (RCT) (Forthcoming in the Journal of Positive Psychology)
Gratitude 3-Blessings Intervention
Procedure of 3-Blessings Study

- Pretest Assessment
- Placebo Control
- 3-Blessings Pride Control
- 3-Blessings Gratitude Treatment
- Posttest Ax
- 1-week Follow-up Ax
- 5-Weeks Follow-Up Ax

- Treatment
- Gra1tude
- Control
- 3jBlessings
- Posfest
- Ax
Impact of Gratitude 3-Blessings Treatment on Well-Being

**Graph:**
- **(labels):** Pretest, Posttest, 1-Week Follow-Up, 5-Week Follow-Up
- **X-axis:** Composite Well-Being
- **Y-axis:** Composite Well-Being
- **Legend:**
  - Cyan: Semantic Memory Control
  - Green: Pride 3 Blessings
  - Blue: Gratitude 3 Blessings

**Data Points:**
- Pretest: Semantic Memory: -0.84, Pride: 0.448, Gratitude: -0.07
- Posttest: Semantic Memory: -0.206, Pride: 0.142, Gratitude: -0.26
- 1-Week Follow-Up: Semantic Memory: -0.215, Pride: 0.142, Gratitude: -0.009
- 5-Week Follow-Up: Semantic Memory: 0.555, Pride: -0.248, Gratitude: 0.941

**Institution:**
- Berkeley University of California

**Logos:**
- Greater Good Science Center
Why does well-being continue to increase after the grateful recounting treatment?
We believe that it is because grateful recounting trains cognitive habits that in turn enhance happiness.
Grateful recounting may train you to...

- Notice the good
- Make positive interpretations of good events
- Reflect more positively on your past
Gratitude amplifies the good in...

- Cognitive Processes
- Social Processes
Gratitude is a Moral (Prosocial) Emotion

- Gratitude acts as a Moral Barometer
- Gratitude is a Moral Motivator
- Gratitude is a Moral Reinforcer
The Social Benefits of Gratitude

- People like grateful people
What do people say about their grateful acquaintances?

- Grateful
- Neither
- Ungrateful

Graph showing:
- Happiness: Grateful
- Likeable: Neither
- Likely to Help: Ungrateful
The Social Benefits of Gratitude

- People like grateful people
- Gratitude enhances our desire to affiliate with others
Gratitude Increases Affiliation

Number of People

Come back and work with Partner

Come back and work Alone

Gratitude

Control

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The Social Benefits of Gratitude

- People like grateful people
- Gratitude enhances our desire to affiliate with others
- Gratitude enhances our communal orientation toward others
- Gratitude enhances our tendency to include others
- Gratitude enhances prosocial behavior
Gratitude Enhances Prosocial Behavior

![Bar chart showing the time spent helping (in minutes) for benefactors and strangers with gratitude and neutral conditions.]

- **Benefactor**
  - Gratitude: 23 minutes
  - Neutral: 11 minutes

- **Stranger**
  - Gratitude: 17 minutes
  - Neutral: 13 minutes

**Requestor Identity**

**Greater Good Science Center**

**Berkeley University of California**
The Social Benefits of Gratitude

- People like grateful people
- Gratitude enhances our desire to affiliate with others
- Gratitude enhances our communal orientation toward others
- Gratitude enhances our tendency to include others
- Gratitude enhances prosocial behavior
- Gratitude enhances our relationships
Gratitude helps...

- Find
- Remind
- Bind
“Why is gratitude so great?”
Gratitude amplifies the good in...

- Cognitive Processes
- Social Processes
How does gratitude enhance well-being?

“....I think it just makes you nicer.”
Thanks...

pwatkins@ewu.edu
The Greater Good Gratitude Summit