

# Science of Happiness

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Why the need to study “happiness”?  
All of us want to be happy.  
Universal wish of all living beings.  
Do not leave it to chance!



# Disclaimers:

- Will you be happier after this talk?
- Is this a cult?



 Aristotle

- Whole aim and end of human existence is happiness



 Traditional Psychiatry and Psychology

 Positive Psychology

science/ study of what makes life  
worth living

-10.....0.....+10



# www.calm.auckland.ac.nz

The screenshot shows the homepage of the CALM website. The browser window title is "CALM - Computer Assisted Learning for the Mind - Homepage - Windows Internet Explorer". The address bar shows "http://www.calm.auckland.ac.nz/". The website header features the title "CALM - Computer Assisted Learning for the Mind" and the University of Auckland logo. A navigation menu includes links for "Site map", "Downloads", "Your feedback", "Conditions of use", "Further help", and "Computer requirements". A sidebar on the left lists categories: "Homepage", "Mental resilience", "Managing stress, anxiety & depression", "Healthy relationships", and "Finding meaning in life". The main content area begins with a welcome message: "Welcome to the CALM Website, Computer Assisted Learning for the Mind." This is followed by a paragraph: "All of us want to have a happy life. No one wakes up in the morning thinking 'I hope I will be miserable today'. Many of us think that happiness is dependent on external situations like possessions, status and pleasures. Though these things can be good, often the satisfaction they bring is short term." Below this text is an image of two monarch butterflies feeding from a green plant. The text continues: "Scientific studies on what makes people truly and genuinely happy show the importance of four main things:" followed by a numbered list: 1. Mental resilience, 2. Managing stress, anxiety and depression, 3. Healthy relationships, and 4. Finding meaning in life. A paragraph then asks visitors to familiarise themselves with the content of at least the first two tabs. At the bottom of the main content area, there are buttons for "Orientation", "Audio files", "Feedback", "Credits", and "Copyright". Below these buttons is a section titled "Orientation to other parts of the website" which states: "Some of the sections include audio files with exercises and information you can download, as well as links to relevant websites that provide additional information and resources. Please take a moment to orientate yourself to the structure of this website:" The Windows taskbar at the bottom shows the Start button, several open applications, and the system tray with the time "11:01 a.m." and "Internet" connection status.



# HAPPINESS

- Joy and contentment
- “feeling good”
- “life is wonderful”
- Subjective well being (SWB)
- equanimity
- NOT: momentary, fleeting, sensual pleasures



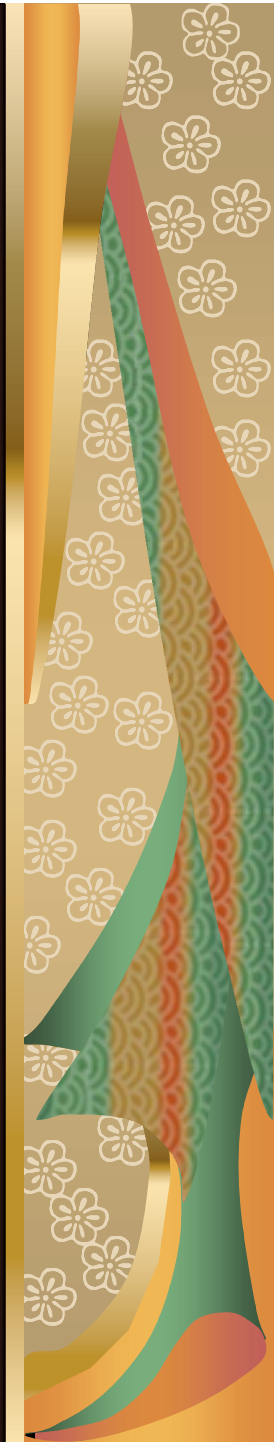


Most of us think that happiness is a result of specific states:

- ❏ Social status
- ❏ Financial status, material objects
- ❏ Having a nice family, kids, house, good job
- ❏ Having the perfect partner versus *good enough partner*
- ❏ “perfection”



- Happy, contented disposition (Subjective Well Being) is a **LEARNABLE** mental state/ disposition
- Not necessarily due to external circumstances





## Genuinely happy people

-  Better mental health


-  Better physical health

  -  Less wrinkles! LOL





-  Better relationships

-  More productive and creative

-  More generous, altruistic



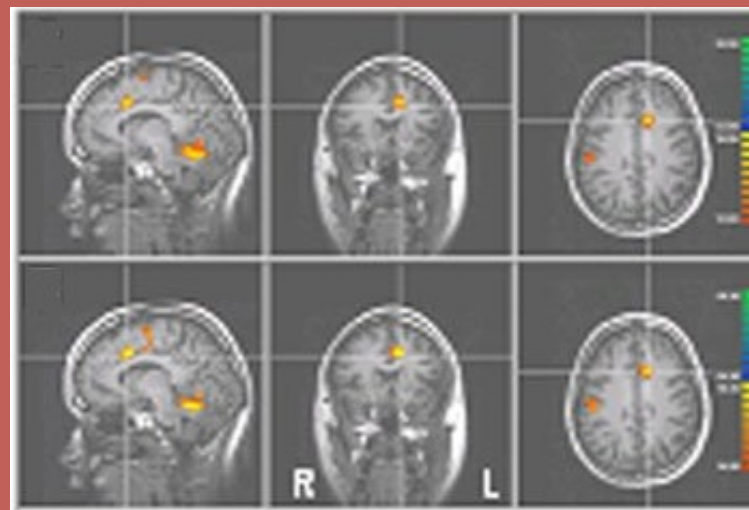
## How do you measure and study happiness

-  Questionnaires/ rating scales
-  EEG
-  Neuroimaging
-  Clinical trials

- Neuroscience
- Findings on happiness
  - RJ Davidson studies
  - Affective Neuroscience
- Study participants who learned and practiced happiness techniques have shifted their brain patterns






Waisman Brain Imaging Lab






# Neuroscience of emotions

## brain chemicals

-  Dopamine system
-  Opioid system
-  Cortisol- stress hormone

## Brain areas

-  Right prefrontal cortex- in hypervigilance
-  Left prefrontal cortex- feeling enthusiastic, upbeat, positive
-  Amygdala- anxious, angry, depressed



# Question- which one will you choose?

- 1) You get 2 Million dollars a year and others get 1 Million each
- 2) You get 4 Million dollars a year and others get 8 Million each



# Rivalry

- ❏ People care about other people's incomes as well as theirs.
- ❏ People compare incomes within a realistic reference group- peers, family, within organisation. Not superstars or billionaires.
- ❏ **Many of us get satisfaction being higher in rank**
- ❏ Is this "bad"?



# 3 traps

Rivalry

Habituation

Pleasure Treadmill





# Habituation

money

food, sensual pleasures

acquisitions

Illnesses, disability

*The brain adapts and becomes tolerant to many changes. Moves back happiness scores to baseline.*



# Pleasure Treadmill

“if I get \_\_\_\_\_, then, I will be happy”



# Happiness Formula

$$H = S + C + V \text{ Seligman}$$

H-is enduring Happiness

S- Set range





C- Current Circumstances

V- Voluntary Variables




$$H = \underline{S} + C + V$$

## Set Range or happiness thermostat

-  Genetics
-  Lykken twin studies
-  Infant studies
-  About 40% to 50% of overall happiness is genetic



$$H = S + \underline{C} + V$$

 C- Current Circumstances ( about 10% of variance in happiness)

 \$\$\$

 Age

 Health

 Education

 Climate

 Gender





# money money money

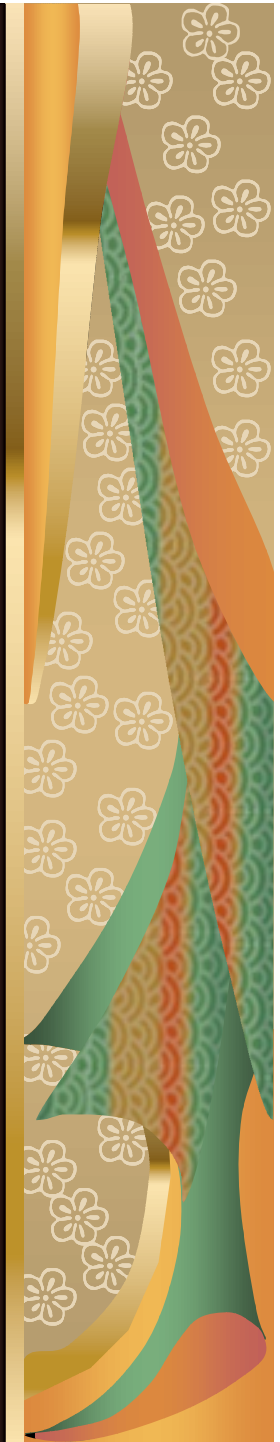
- Forbes 100, individuals with net worth of over 125 million dollars- are only slightly happier than the average American
- Of 800 wealthy individuals, more than 50% say money did not bring them happiness  
(Kristof KM 2005)
- **Tracking daily activities** (Kahneman D, Krueger AB et al Science 2006)
  - have less time to engage in enjoyable activities
  - higher anxiety and anger





\$\$\$\$\$

-  We only need so much---after which more money does not bring more happiness
-  How much?



## Materialism and happiness? (Cohen P, Cohen J 1996)

study of 12,000 university freshmen at 18,  
followed at 37

making money as their primary goal





*less satisfied with their lives*  
*higher rates of mental illness*





$$H=S+C+\underline{V}$$






## Voluntary Variables (40-50%)

-  *What we do and How we think*
-  *Increase positive emotional states*
-  *Decrease negative emotional states*
  
-  *Within our control!*





## Negative Emotional States

-  Angry, ashamed, contempt, disgust, embarrassed, guilty, hate, sad, scared, stressed
-  **CANNOT be eliminated**
-  Causes tunnelling, intense focus, isolation
-  ***Negative bias***
  -  ***Stick more***



## Positive emotional states

- ❏ Love, joy, gratitude, serenity, interest, inspiration, hope, pride, amusement, awe
- ❏ Fleeting
- ❏ Less sticky



# Positivity Ratio

 Positive emotional states ÷  
Negative emotional states

**3:1**

(2.9013:1)



## Scientific basis for positivity ratio

 Losada

 Gottman

 Frederickson



# What can we do to increase

 Voluntary Variables ( $H=S+C+V$ )

 Positivity Ratio

?



# Activities and Intentions to boost happiness scores

- **Gratitude**
- **Kindness and Forgiveness**
- **Dealing with negative thinking**
- **Better relationships**
- **Mindfulness, living in the moment**
- Religion and Spirituality



- Better coping strategies
- Flow experiences
- Committing to goals
- Physical exercise
- Optimism
- Identifying and applying strengths





*“there’s too many choices!”*



# Gratitude

- Turbo charger of happiness scores
  - Easiest, most do-able
  - Most popular
- 
- Why does it work?



# Gratitude exercises

- 1) Gratitude diary at night for 6-8 weeks; 3-5 things; once a week versus nightly
- 2) Real-time gratitude diary
- 3) Gratitude letters
- 4) Sincere expression of gratitude versus “polite” gratitude
- 5) What’s better: writing versus thinking



# Kindness

- Biological wiring
- Most important ingredient for happiness
- “if you want to be happy, practice compassion”
- “true happiness consists in making others happy”
- How can you develop genuine kindness?
  - See everyone else ( even other creatures) as similar to you
  - Truly understand the other person from other perspectives
- best reality TV show?



# Boosting Kindness Scores

- At least 5 acts of kindness everyday
  - Cleaning, opening doors, giving way, putting money in parking meter, writing thank you letters, buying homeless man some food
- Kindness journal- daily tally of acts of kindness
- Act of choosing or thinking kindness strategy already boosts happiness scores
- To prevent habituation- kindness day with 1 large acts of kindness like volunteering, babysitting
- Be creative- vary techniques



# Boosting Kindness Scores

- Targets: Strangers versus friends versus family/partner
- Responding to anger with kindness
- Thoughts/ meditation techniques to develop kindness (metta bhavana)
  - Quietly thinking: similar to me, may that orderly be well, happy and be at peace; may she come home to a loving and caring family
- Why does it work?



# Kindness

## ⌘ WARNING:

- ⌘ Kindness burnout
- ⌘ Voluntarily done NOT out of guilt/ expectation
- ⌘ Be prepared to be rejected
- ⌘ Avoid self righteous thinking



# Forgiveness

- One of the hardest to do
- Typical response to injury/ abuse/ insult:
  - Respond with equal harm
  - Avoid transgressor
  - Revenge
- Not the same as reconciliation, a “pardon”, forgive and forget





# Forgiveness

- Key: truly understanding the situation
- End result: shift in thinking and emotions about transgressor
  - Wish to harm offender has decreased
  - Wish for offender to have a better situation



# Forgiveness



## Exercises:

- 1) remember past experiences of you being forgiven
- 2) Imagine trying to forgive
- 3) Writing ( not necessarily sending) letter of forgiveness
- 4) Developing empathy/kindness in general
- 5) Ruminant less



# Dealing with negative thinking

## ■ Negative thinking about yourself

### ■ Awareness

- Examining the evidence
- Disputation ( check them against reality)
- Dealing with rumination
- CBT



# Dealing with negative thinking

- Negative people or situations
  - Awareness!
  - 3 options:
    - Modify the situation
    - Attend to different aspects of the situation/  
person
    - Change the meaning of the situation



# Better relationships

- Happy people- more friends, tend to have a partner, lasting relationships
- Part of being a primate
  
- Search for the “perfect partner”



# Better relationship strategies

1. Making time
2. Express admiration, appreciation and affection
3. Celebration
4. Managing conflict
  - Avoiding contempt, putting down, stonewalling, defensiveness
  - Put yourself in your partners situation
  - There will ALWAYS be conflict but it is how you resolve it
5. Sharing dreams, goals; supporting roles



# Best relationships resource:

 John Gottman's Seven Principles for Making Marriage Work



# Mindfulness Meditation

## Mindfulness






- Living in the present moment
- Fully awake and fully alert
- Not trapped by thoughts about the past or worries of the future
- Enhanced through practice of Mindfulness Meditation
  
- Emotional regulation!





# Mindfulness Meditation

## Mindfulness

-  Neuroscientific findings
-  Applications in Medicine
-  Learnable and Achievable
  
-  How many weeks?
  
-  You learn how to **RESPOND** vs **REACT**



# Take Home Message

Happiness score is modifiable

Happiness is a learnable and achievable mental state

Happiness like any skill or sport takes planning and practice



# Self development readings/ resources

- [www.calm.auckland.ac.nz](http://www.calm.auckland.ac.nz)
- **How of Happiness-** Sonja Lyubomirsky
- **Positivity-** Barbara Frederickson
- **“Happiness”-** Matthieu Ricard
- **Peace is Every Step-** Thich Nhat Hanh
- <http://www.authentichappiness.sas.upenn.edu>  
website on Positive Psychology

