# The Landscape and Promise of Prosociality

Emiliana Simon-Thomas, Ph.D.

The Greater Good Science Center, UC Berkeley





# Why Prosocial?



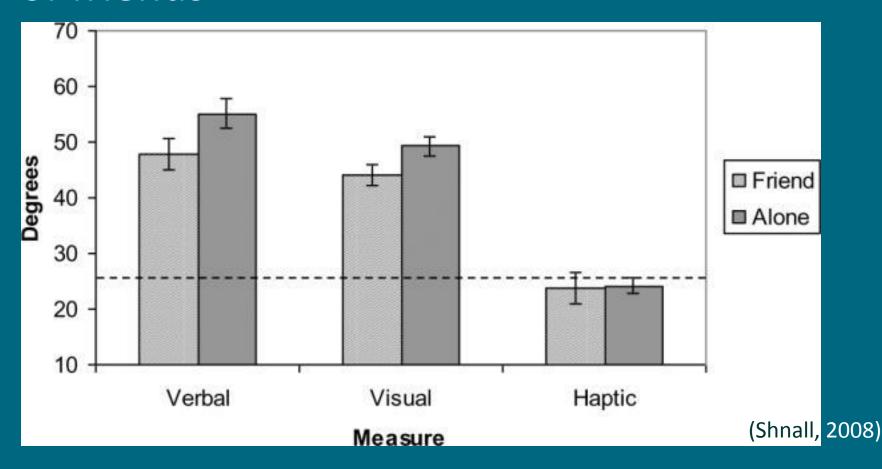
(Sucheck et. al. 2016)







### The world looks easier in the presence of friends







#### The Social Baseline Theory

"The human brain expects access to social relationships that mitigate risk and diminish the level of effort needed to meet a variety of goals..."

(Coan, 2015)





#### Oxytocin: The Cuddle Neuropeptide



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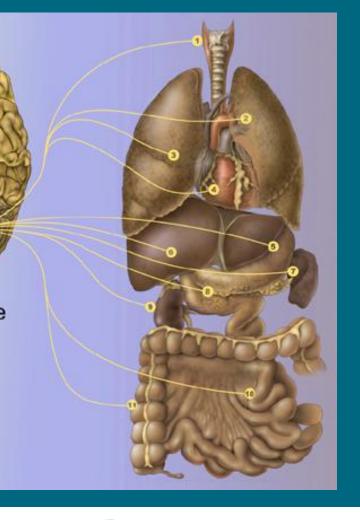


#### The Vagus: The Social Affiliation Nerve

#### The Polyvagal theory-

Porges original theory outlines three viscerally based systems we've evolved to manage and the concerns of safety and danger. From the more recently evolved to earlier evolved they are:

supports social engagement- slowing us down for contact, attuning our ear to the human voice, opening and enlivening the vation eyes to give and receive cues of social response, and fostering internal receive sensations associated with comfort and receive warmth.





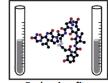


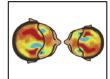
### Biobehavioral Synchrony: **Our Bodily** Signals of Social Connection

(Feldman et. al. 2016)

#### Biobehavioral synchrony in human attachments







Behavioral synchrony

Heart rate coupling

**Endocrine fit** 

Brain-to-brain synchrony



 Synchronized behavior in gaze, affect, vocal, and touch

- Mother-specific father-specific
- Synchronized HR during synchronized interactions
- Coordinated OT response following contact
- Coordinated cortisol response to stress

Coordination of

OT and cortisol

among parents

Coordination of

• OT is released

with friends

during interactions

OT among lovers

 Coordinated brain oscillations in alpha and gamma rythms



Romantic partners





- Synchronized nonverbal patterns
- Coordinated self-disclosure + empathy
- Patterns of social reciprocity

· Coordination of culture-spcific display rules (e.g., eye gaze)

HR coordination

interaction

during or following

• Teams coordinate heart rythms during joint action

• Evidence for some

proximity

coordination during

joint action in close

- No evidence for coupling
- OT is implicated in acts of empathy
- No evidence for coupling

- Coordination of brain response in
- mentalizing network in parents
- Coordination of gamma oscillations in temporal cortex in lovers
- Alpha response to behavioral synchrony among teams in social brain
- Coordination among teams in mirror network
- · Evidence for coordinated activation in mentalizing areas during interaction

Trends in Cognitive Sciences



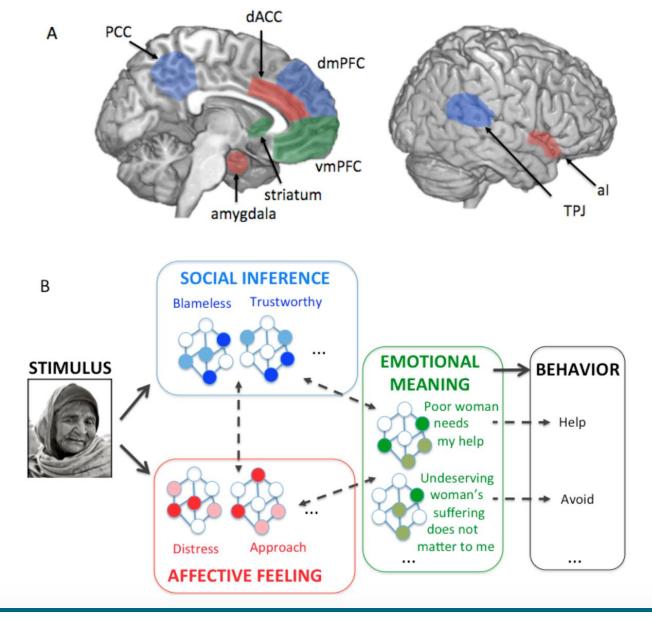


## Empathy: For Sharing Feelings and Understanding Each Other









Compassion:
For Tending
to Each
Other's
Needs

(Ashar, 2016)





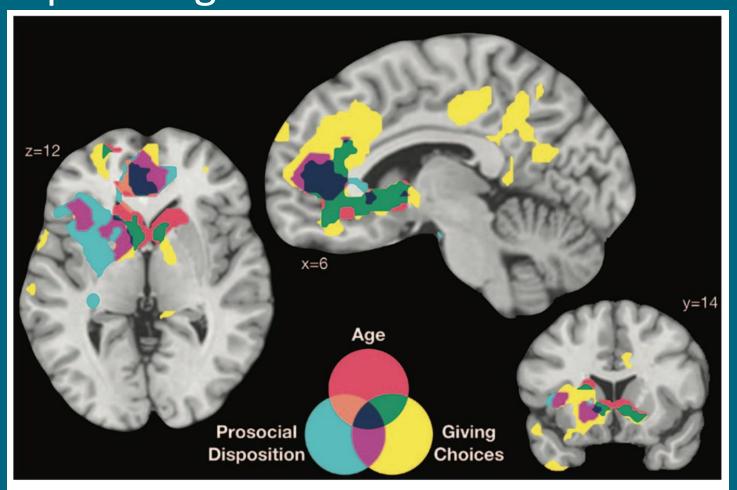
#### Self-Compassion: For Tending to Ourselves







## Altruism: For Sharing and Cooperating and Upholding Fairness



(Hubbard, 2016)





## The Human *General Benevolence*Dimension

"...pure altruism is fueled by the utility that comes from *knowing that the public good is increased*" (Hubbard, 2016)



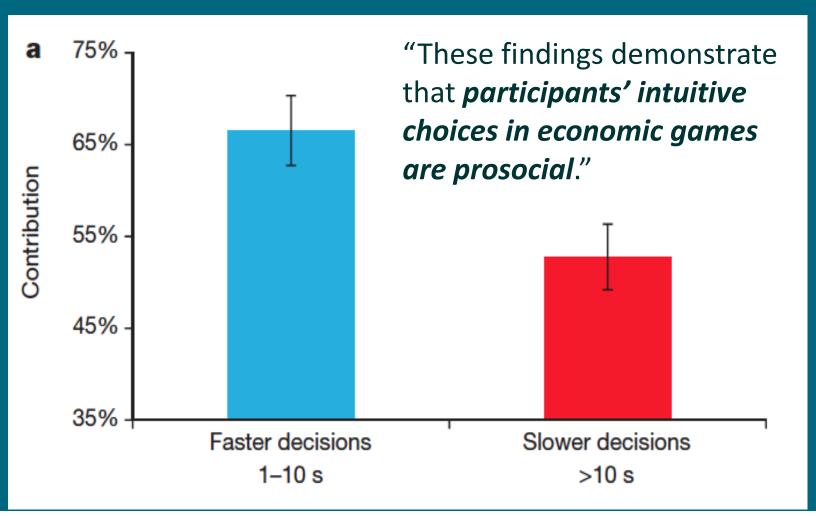




(Warneken, 2009)







(Rand, 2012)





"These findings demonstrate that participants' intuitive choices in economic games are prosocial." (Rand, 2012)



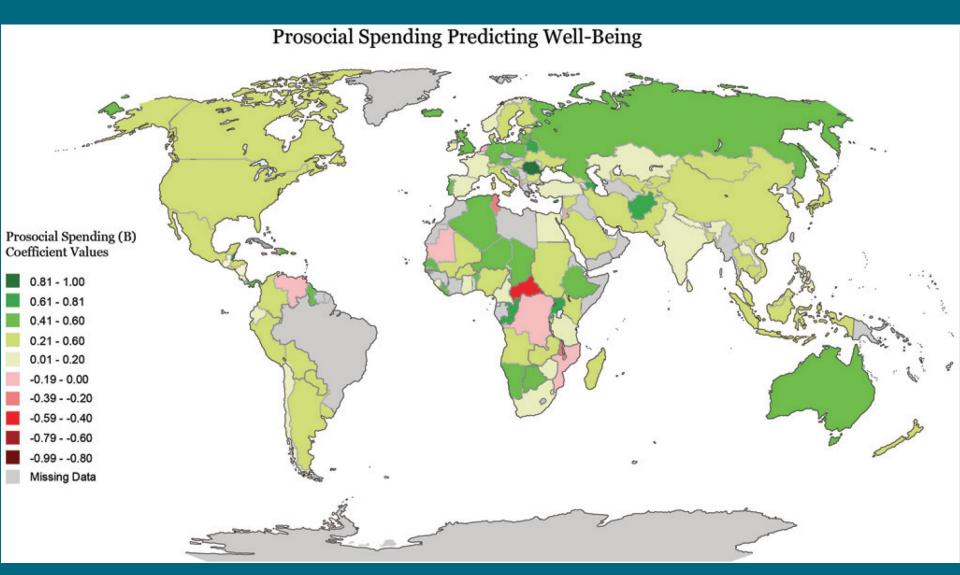


"These results demonstrate that disruptive stimulation to right DLPFC and DMPFC increased subjects' offers, suggesting that these prefrontal areas exert an inhibitory influence on a prepotent prosocial inclination."

(Moore, 2016)







(Aknin, 2013)





Kindness

"...individuals in poor and rich countries alike reported *more happiness if they engaged in prosocial spending.*" (Aknin, 2013)





"I think what Alice is trying to say is that she feels unappreciated."





Gratitude

"The feeling of reverence for things that are given" (Emmons, 2007)

"... gratitude stems from the perception of a positive personal outcome, not necessarily deserved or earned, that is due to the actions of another person."

(Emmons, 2003)





Correlations of Two Measures of Gratitude With Measures of Affectivity and Well-Being, Prosociality, and Spirituality/Religiousness (Study 1)

Scale   GQ-6   ratings			
Life satisfaction (SWLS)  Vitality  Subjective happiness  Optimism (LOT)  Hope  Agency Pathways  Positive and negative affect Positive subscale Negative subscale Negative subscale Psychological symptoms (BSI)  Anxiety Depression  Prosocial traits and behaviors  Dispositional empathy Empathic concern Perspective taking  M of 5 peer-reported prosocial behaviors in past month Peer-rated prosocial traits Goes out of way to do favors for others  1.4 .47**	Scale	GQ-6	12-item informant
Vitality         .46****         .23**           Subjective happiness         .50****         .26***           Optimism (LOT)         .51****         .28***           Hope         .67****         .21**           Agency         .67****         .18*           Pathways         .42****         .18*           Positive and negative affect         .31**         .32**           Positive subscale         .31**         .32**           Negative subscale        31**        31**           Psychological symptoms (BSI)        20**        11           Anxiety        20**        11           Depression        30**        26**           Prosocial traits and behaviors         .32**         .22**           Dispositional empathy         .32**         .22**           Perspective taking         .32**         .22**           M of 5 peer-reported prosocial behaviors in past month         .12         .40**           Peer-rated prosocial traits         .67**         .40**	Affectivity and well-be	ing	
Vitality         .46****         .23**           Subjective happiness         .50****         .26***           Optimism (LOT)         .51****         .28***           Hope         .67****         .21**           Agency         .67****         .18*           Pathways         .42****         .18*           Positive and negative affect         .31**         .32**           Positive subscale         .31**         .32**           Negative subscale        31**        31**           Psychological symptoms (BSI)        20**        11           Anxiety        20**        11           Depression        30**        26**           Prosocial traits and behaviors         .32**         .22**           Dispositional empathy         .32**         .22**           Perspective taking         .32**         .22**           M of 5 peer-reported prosocial behaviors in past month         .12         .40**           Peer-rated prosocial traits         .67**         .40**	Life satisfaction (SWLS)	53***	34**
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month Peer-rated prosocial traits Goes out of way to do favors for others .14 .47**			
Goes out of way to do favors for others .14 .47**		st .12	.40**
	Peer-rated prosocial traits		
Has volunteered time to help others 19* 42**			
	Has volunteered time to help others		
	Tends to be generous with time and resource	cs .22**	.50**
Expects other people to do him/her favors20**41**		20**	
Is helpful and unselfish with others .18* .54**	Is helpful and unselfish with others	.18*	.54**

# The Perks of Prosociality

Gratitude

(McCullough, 2008)





Post-Conflict Consolation and Reconciliation





(Frans deWaal)





Consolation and Reconciliation (i.e. apology and forgiveness)

#### **Apologizing**

 Lowers stress, increases likelihood of forgiveness from the transgressed, and generates esteem towards the apologizer.

#### Forgiveness

 Improves mental health (reduced anxiety, stress, and hostility), lower blood pressure and stronger immune response, and increases relationship satisfaction.





### The Promise of Prosociality

- 1) A 10% increase in "having someone to count on" is equivalent to doubling per capita GDP (World Happiness Report, 2017)
- 2) A foundation of social affection and trust affords resilience against every physical and mental health disease that researchers have evaluated (McWilliams & Bailey, 2010)
- 3) Social isolation registers like physical pain, and loneliness is tied to hyper inflammation, cardiovascular risk, and earlier death (Eisenberger, 2003; Steptoe 2013)



#### The Promise of Prosociality

"...If I wanted to predict your happiness, and I could know only one thing about you, I wouldn't want to know your gender, religion, health, or income. I'd want to know about your social network – about your friends and family and the strength of the bonds with them."

(Gilbert, Harvard)



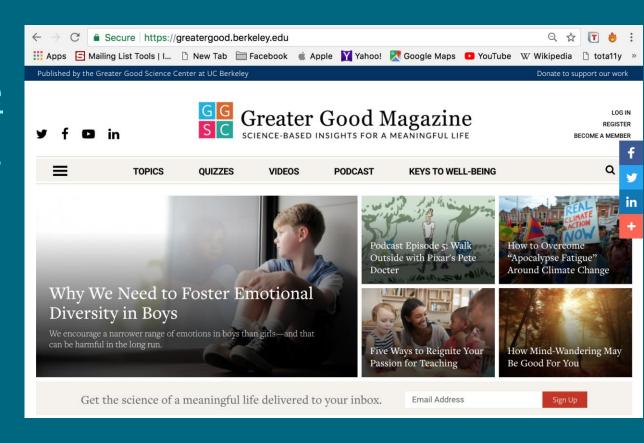


#### The Greater Good Science Center

#### **URL:**

https://greate rgood.berkele y.edu/

Articles,Resources,& Events



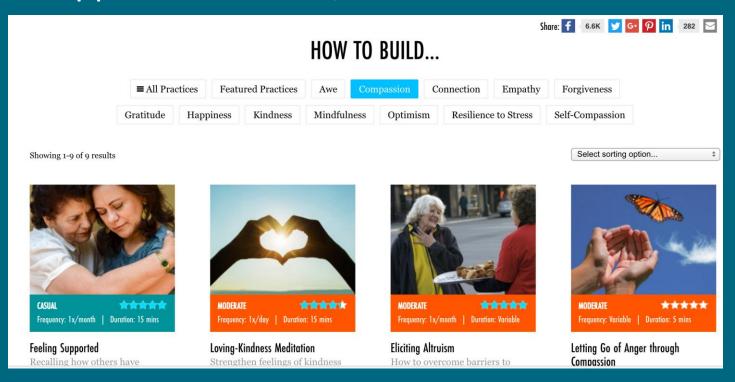




#### Greater Good in Action

URL: <a href="https://ggia.berkeley.edu/">https://ggia.berkeley.edu/</a>

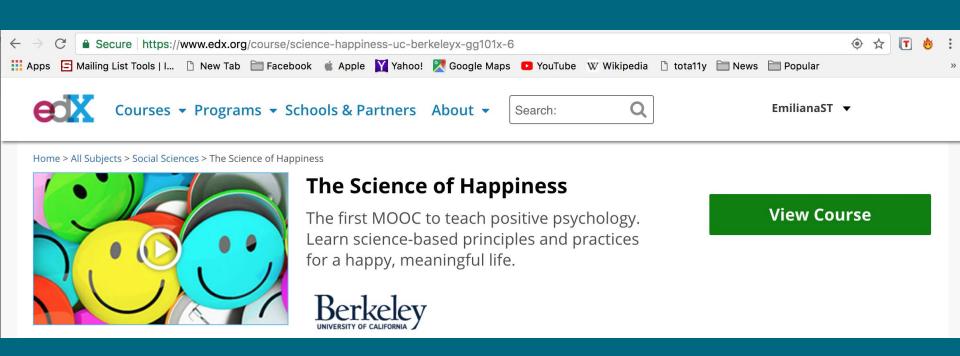
Happiness Practices, Exercises and Activities







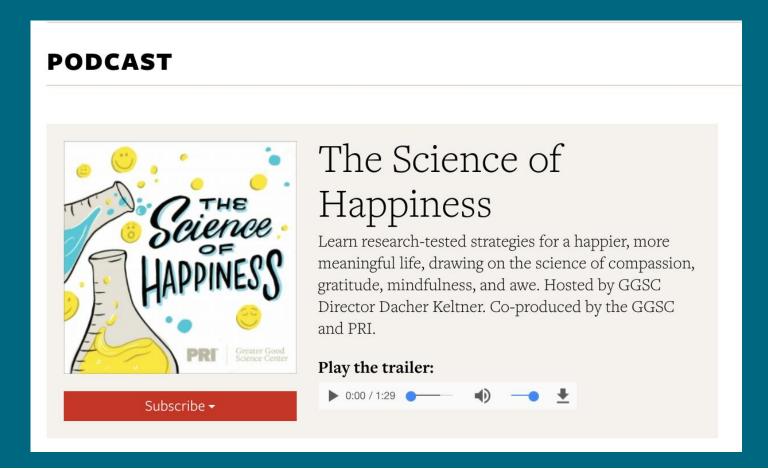
## GG101x: The Science of Happiness on edX.org







### The Science of Happiness Podcast







#### THANK YOU!



