# Illness and Happiness in Global Contexts

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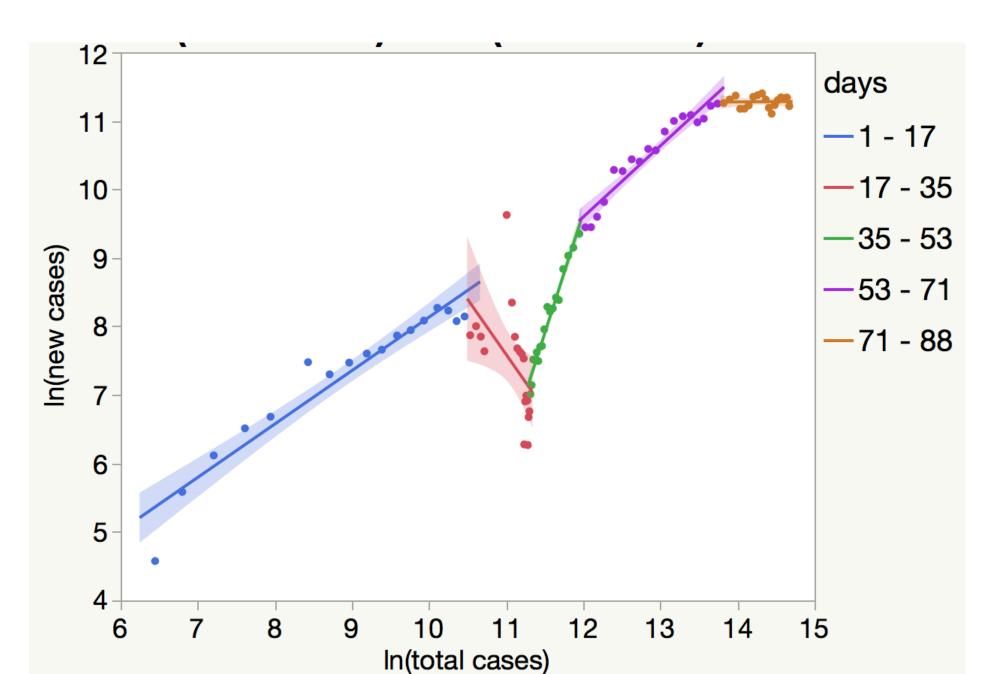
## Illness

# Happiness

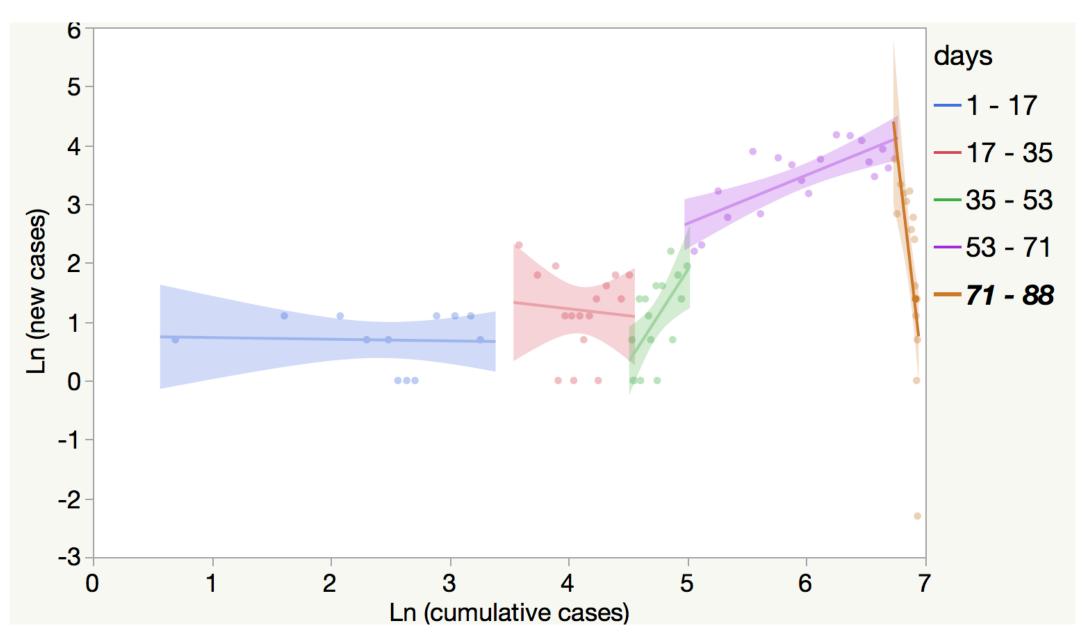
## Globalization

# Illness

#### Infection rate of the world

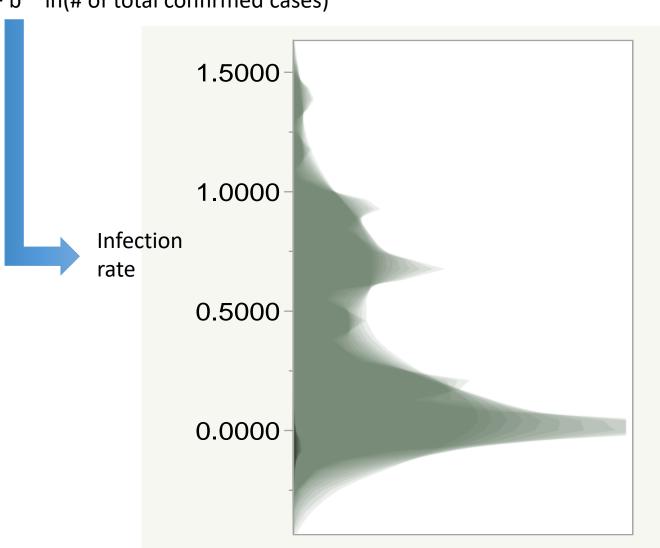


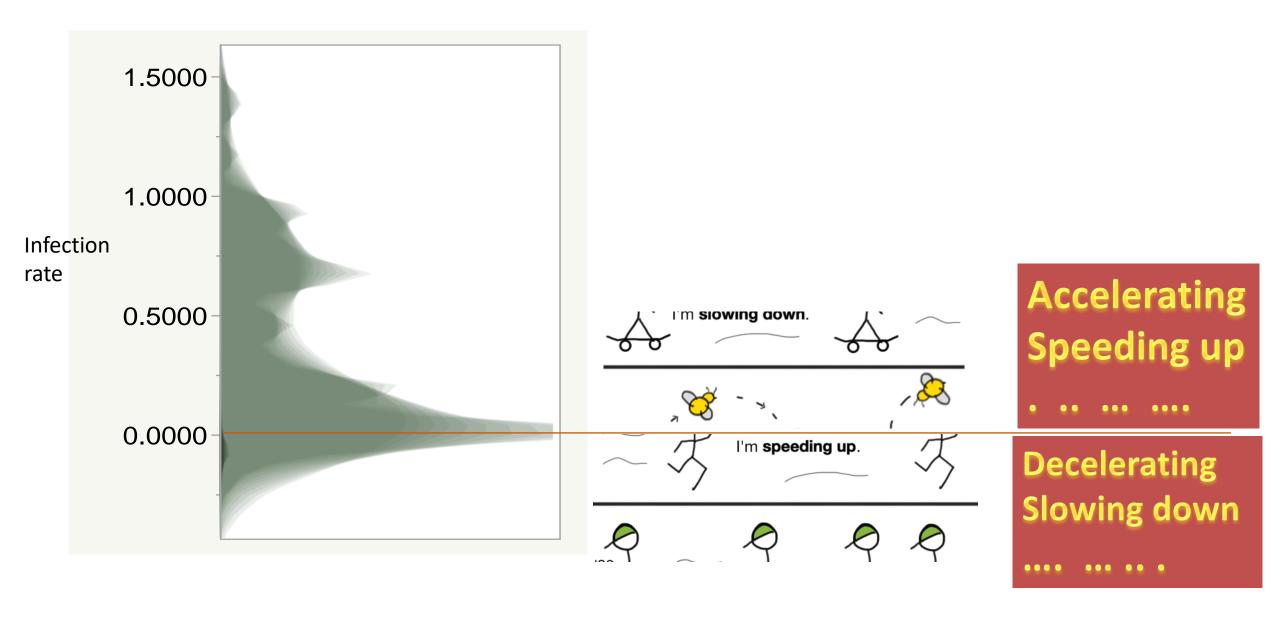
## Infection rate of Hong Kong

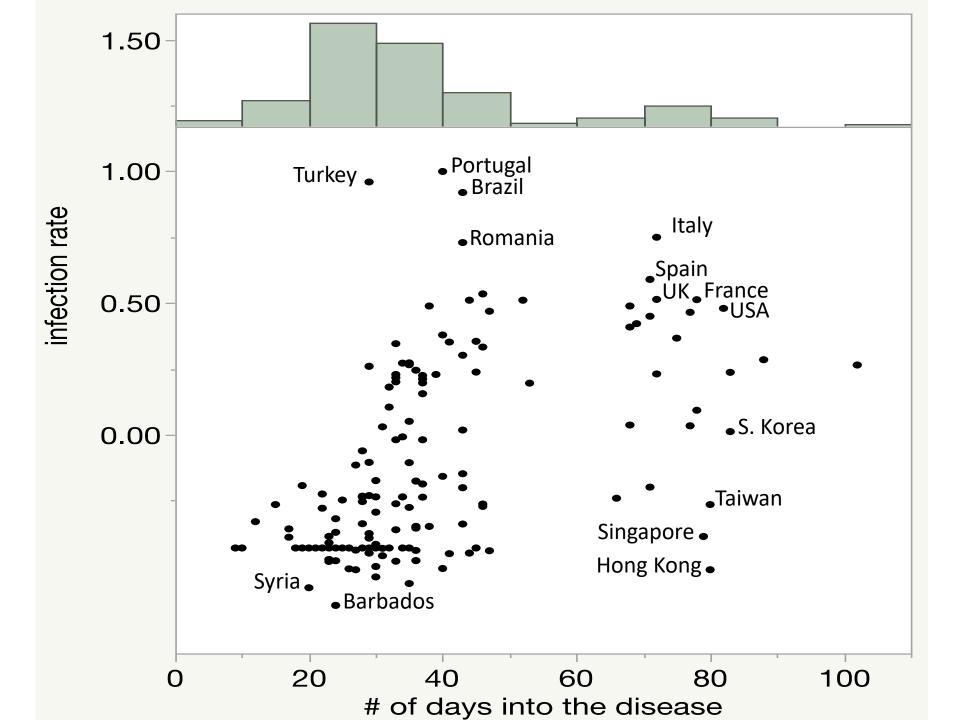




For each country,  $ln(\# of new case on Day N) \sim a + b * ln(\# of total confirmed cases)$ 



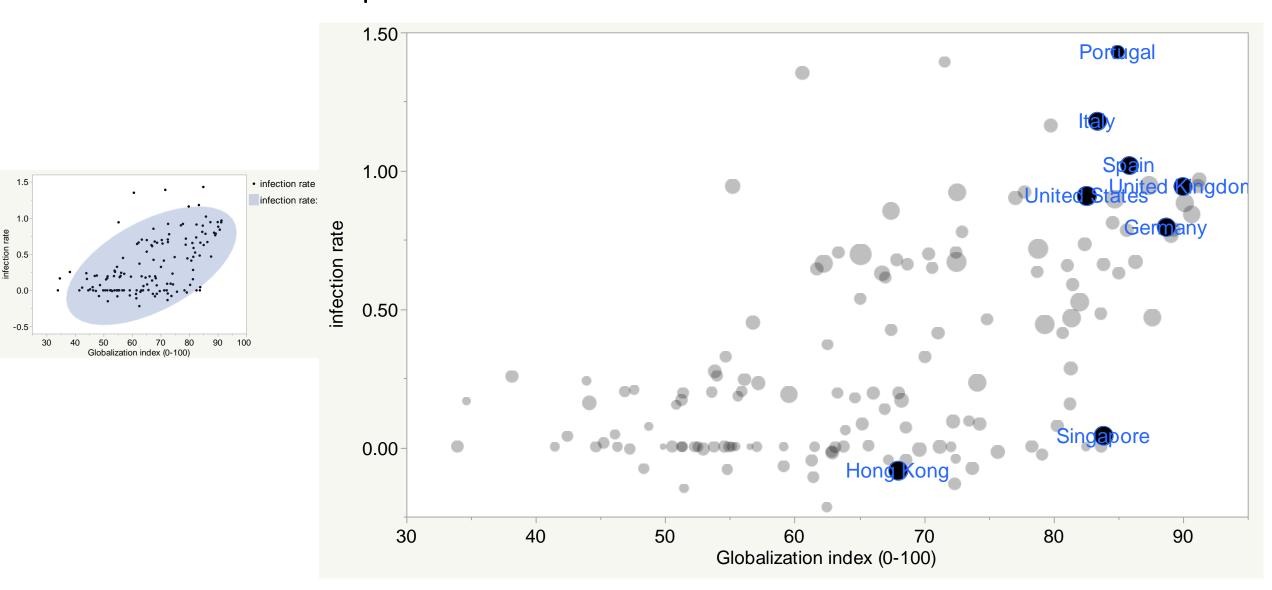




# Illness

# Globalization

In general, globalized entities speed up, but there are exceptions ....



# Illness: How can I prevent it?









## An infection is preventable if you...

"wash hands more often; use alcohol-based hand sanitizer more often; wear a face mask; avoid social events; avoid public transport; eat out less; touch your face less; shop for groceries less; cooking at home more; stay home, work from work ..."





Photo Credit: South China Morning Post

Photo Credit: Independent

Sander van der Linden and David Spiegelhalter at the University of Cambridge

They collected data from 8 countries: USA, UK, Italy, Spain, Germany, Australia, Mexico, and Sweden.

Most of these countries have high number of confirmed cases.

About 700 participants from each country participated in the study between March 19, 2020 and March 29, 2020. The total sample size is 5,598

## Number of preventive actions taken:

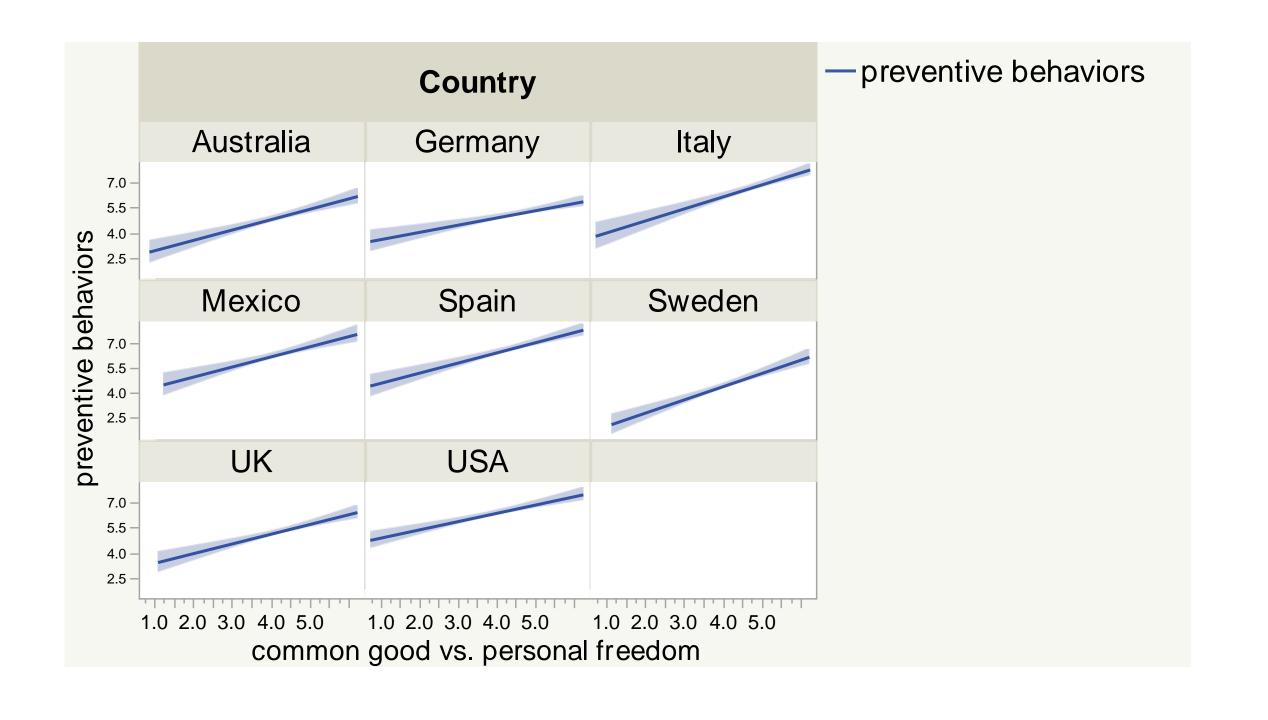
"Which of the following steps, if any, have you taken in the last month to prepare for the possibility of many cases of the coronavirus/COVID-19 in your community? (No. of steps taken)

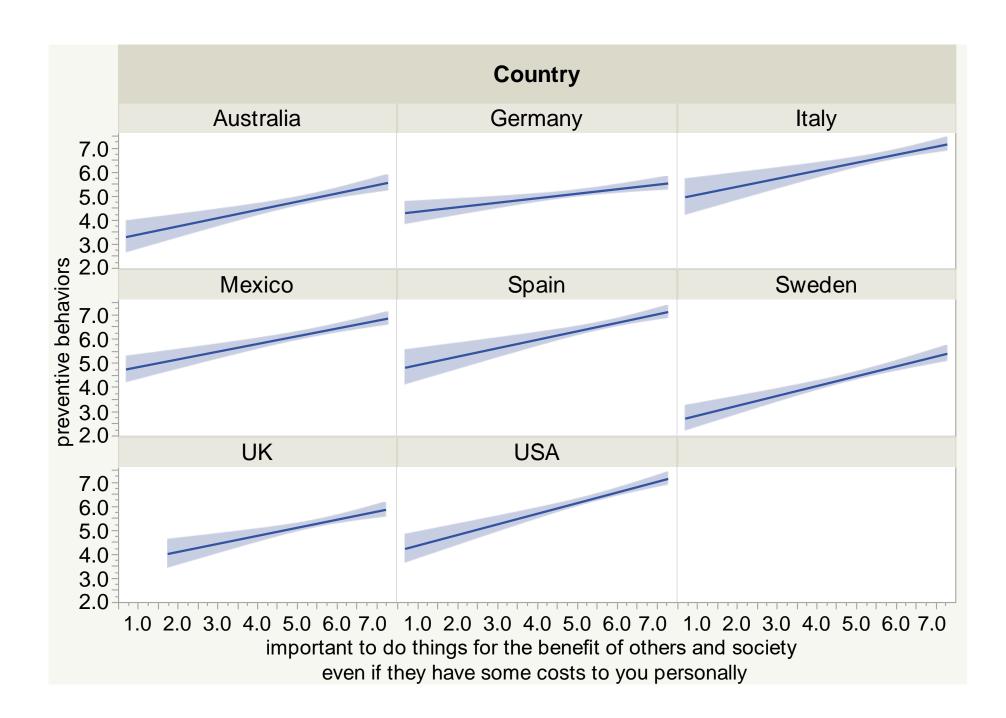
- washing hands more often
- using alcohol-based hand sanitizer more often
- wearing a face mask
- avoiding social events
- avoiding public transport
- eating out less
- touching your face less
- shopping for groceries less
- cooking at home more
- staying home from work extra supplies

## Common good vs. personal freedom

#### Mean of five items

- "The government interferes far too much in our everyday lives" (reverse)
- "Sometimes government needs to make laws that keep people from hurting themselves."
- "It's not the government's business to try to protect people from themselves" (reverse)
- "The government should stop telling people how to live their lives." (reverse)
- "The government should do more to advance society's goals, even if that means limiting the freedom and choices of individuals."
- "Government should put limits on the choices individuals can make so they don't get in the way of what's good for society."
- "I think the response in the past few weeks was putting too many restrictions on people." (reverse)





# Illness: How can WE prevent it?





#### French police fine over 4,000 people for violating lockdown









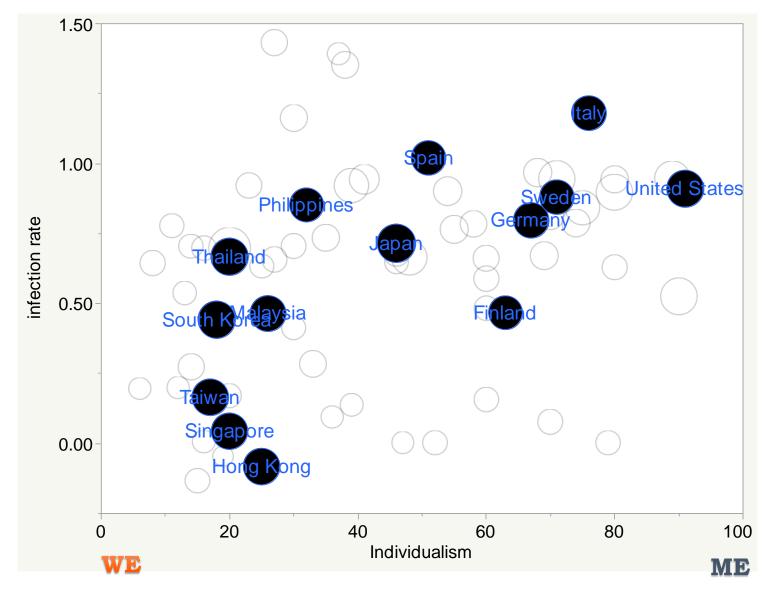




French police control people and evacuate the beach in Pornichet near La Baule as a lockdown is imposed to slow the rate of the coronavirus disease (COVID-19) in France, March 18, 2020. REUTERS/Stephane Mahe REUTERS - STEPHANE MAHE



# Infection rate by Individualism Sized by # of days into the disease



Individualism:

Put personal goals before common good

# 小我 ME



# Happiness

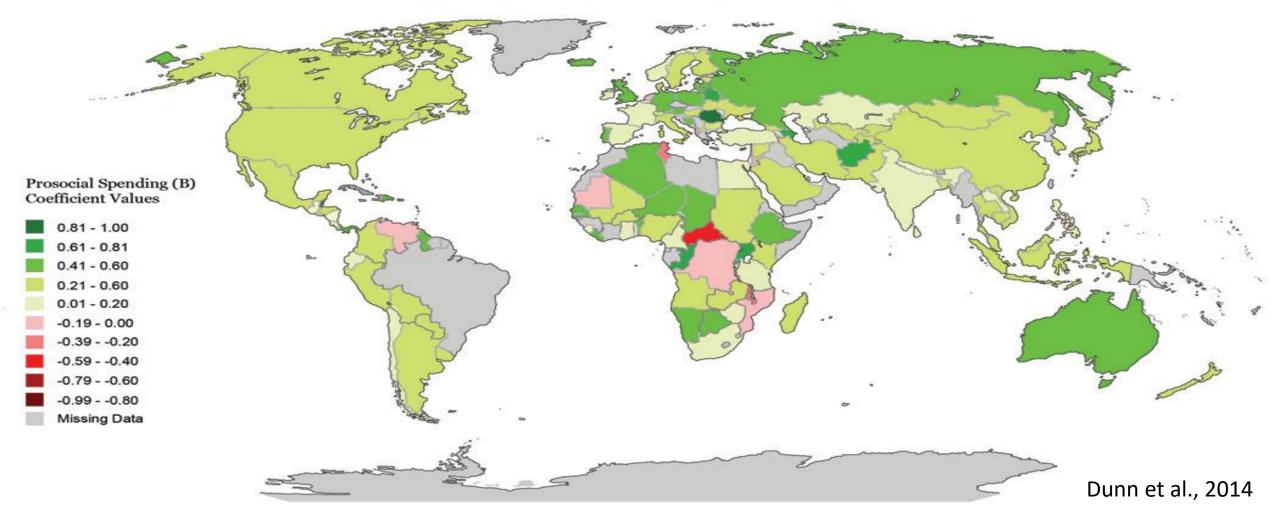
## Globalization



# Beyond Hedonism: Eudaimonic Happiness

# Prosocial spending makes people happy almost everywhere in the world





A REVOLUTIONARY APPROACH
TO SUCCESS

# ADAM GRANT



I am a taker

> I am a giver

I help the needy

My life is meaningful ? r = -.07

My life is meaningful! r = .32

My life is meaningful! r = .23

# Illness

# Happiness

## Meaning gives you good health







www.theatlantic.com/health/archive/2013/08/meaning-is-healthier-than-happiness/278250/

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## Meaning Is Healthier Than Happiness

People who are happy but have little-to-no sense of meaning in their lives have the same gene expression patterns as people who are enduring chronic adversity.



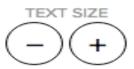












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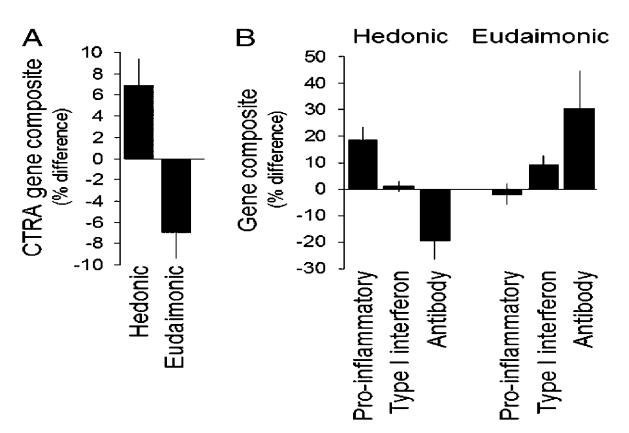


Fig. 2. Expression of the CTRA gene set. (A) Linear model-based estimates of mean difference (±SEM) in expression in a 53-gene CTRA contrast score in PBMCs from individuals with low levels (-2 SD relative to sample mean) vs. high levels (+2 SD) of hedonic well-being and eudaimonic well-being (each adjusting for the other and for demographic and behavioral covariates). (B) Differential expression of CTRA subcomponents: 19 proinflammatory genes, 31 type I IFN response genes, and three antibody synthesis genes.

#### A functional genomic perspective on human well-being

Barbara L. Fredrickson<sup>a</sup>, Karen M. Grewen<sup>b</sup>, Kimberly A. Coffey<sup>a</sup>, Sara B. Algoe<sup>a</sup>, Ann M. Firestine<sup>a</sup>, Jesusa M. G. Arevalo<sup>c</sup>, Jeffrey Ma<sup>c</sup>, and Steven W. Cole<sup>c,d,1</sup>

## Illness

# Happiness



Globalization