



THE EFFECT OF INCOME ON SUBJECTIVE WELL-BEING

PSYCH C162
HUMAN
HAPPINESS

Titan Yuan
Jonathan Lee

Does money buy happiness?



WHAT KIND OF HAPPINESS? HOW MUCH?

STUDY DETAILS

- **450,000 responses**

Data gathered from the Gallup-Healthways Well-Being Index.

- **Jan-Dec 2009**

1,000 US residents surveyed daily over phone.

*Missing sample of population that doesn't use cell phones: ~15% (Pew).

- **31% acceptance**

Of all the people called, 31% agreed to be interviewed.

*The study may be excluding people who are grumpy or in a hurry.

- **28.4% discarded**

Responses that were outliers within the congressional district or nonsensical were discarded.

INDEPENDENT VARIABLES

Household income, other factors
(weekends, headache, religion).

Variables

DEPENDENT VARIABLE

Emotional well-being. The emotional quality of an individual's everyday experience, including the frequency and intensity of daily emotions.

DEPENDENT VARIABLE

Life evaluation. A person's thoughts about the quality of his or her life.

MEASURES OF HAPPINESS

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EMOTIONAL WELL-BEING

The emotional quality of an individual's everyday experience, including the frequency and intensity of daily emotions.

Measured by asking if the individual perceived a particular emotion the previous day.

LIFE EVALUATION

The perceived quality of one's life.

Measured by the Cantril's Self-Anchoring Scale. Subjects asked how they would rate their current lives if 0 is the worst possible life and 10 is the best possible life for them.

Blue affect

Average of the fractions of a population reporting worry and sadness yesterday.

Positive affect

Average of the fractions of a population reporting happiness, smiling, and enjoyment yesterday.

Weber's Law

Humans are more aware of the **percentage change** of something they're experiencing as opposed to an absolute change.

What's \$100 to a millionaire?

In this study, we compare our happiness measures against $\log(\text{income})$ to be able to compare how relative increases in income affect happiness.

Results

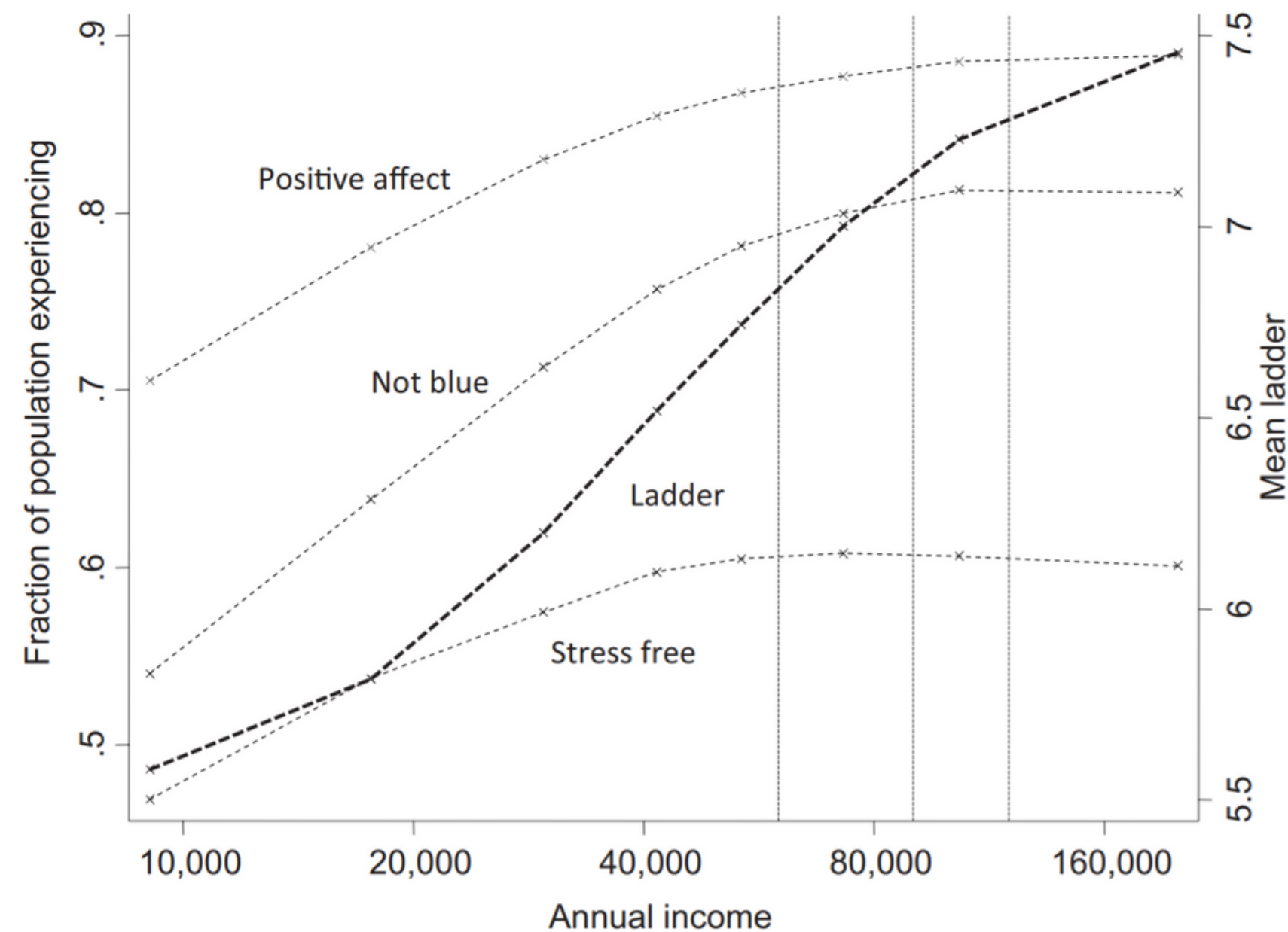
Emotional well-being and life evaluation have different correlates

Income and education are more closely tied to life evaluation whereas health, care giving, loneliness and smoking are stronger predictors of emotional well-being.

Emotional well-being plateaus but life evaluation continues to rise

Observing the data, there's no improvement for emotional well-being beyond \$75,000 / year whereas life evaluation continues to rise past \$120,000 / year.

THE DATA



The bold, dashed line connects average life evaluation scores at different income values.

The thin lines refer to the fraction of the population experiencing a given aspect of emotional well-being.

Cool Overall Results

85%

experienced positive
affect each day

24%

experienced blue
affect each day

39%

experienced stress
each day

6.76 / 10

average life
evaluation

The US is more happy but also
more worried and stressed than
most other countries.

Interesting Observations

College graduates report **MORE** stress than nongraduates.

Religion related to improving positive affect and reducing stress, but no effect on blue affect.

Poverty significantly worsens the effect of adverse circumstances on worry and sadness.

The presence of smoking is a strong predictor for low well-being regardless of income and education.

Evaluation

NONIDEAL SAMPLE

In 2009, about 15% of the US population, according to Pew Research didn't own phones.

POSITIVE BIAS

Only 31% of people called agreed to interview. This probably left out a significant portion of people in bad emotional states or other reasons.

COST OF LIVING VARIATION

Income necessary to live comfortably in different regions of the US varies widely. Should this have been restricted to similar regions?

Discussion

1. Think of a time when you received your first allowance or your first paycheck. How did you feel?
2. Can your life evaluation ever reach 10?
3. The median annual income for a single individual in San Francisco is \$80,000. The median annual income for a single individual in Omaha is \$59,000. How should this analysis have taken these differences between cities into account?
4. The authors mentioned whether subjective well-being should influence public policy. Do you think the goal should be to maximize subjective well-being or minimize emotional pain?

References

HIGH INCOME IMPROVES EVALUATION OF LIFE BUT NOT EMOTIONAL WELL-BEING.

by Daniel Kahneman and Angus Deaton

WEBER-FECHNER LAW

Wikipedia

MOBILE PHONE OWNERSHIP OVER TIME

Pew Research