social connections & happiness

do our social connections have an effect on our happiness?

June 1st, 2016

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the research question

Do individuals that see their friends more often throughout the year tend to feel happier?

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the problem

increased social contact ⇌ a happier person

the solution

Studies have shown that health → happiness, so we can instead test to see if increased social contact → a better perception of one own's health. If so, then increased **social contact** → better perception of **health** → **happiness**.

hypothesis

Individuals that interact with their friends more often report themselves as feeling healthier, and are thus happier.

literature review

What do other researchers have to say about social contact and how it affects our happiness and health?

overview

There is a large body of literature that deals with social isolation and how it impacts a person's physical/mental health or happiness

objective vs. perceived isolation

Perceived social isolation - how lonely a person feels (regardless of the number of people that surround him/her).
Objective isolation - how alone a person physically is (and depends on the number of people around him/her).

few pieces of literature on objective isolation

loneliness & health

Loneliness as a Specific Risk Factor for Depressive Symptoms: Cross-Sectional and Longitudinal Analyses

- High levels of loneliness in adults are associated with depression
- Controlled for many factors, such as marital status, income, education, and perceived stress

American Psychological Association — John T. Cacioppo, Mary Elizabeth Hughes

Loneliness and Pathways to Disease

- Loneliness & perceived isolation predict likelihood of having cancer, heart disease, or other physical diseases later in life
- Mostly long term physiological effects that unfold over time

Science Direct — John T. Cacioppo, Louise C. Hawkley

loneliness & health (cont.)

Loneliness and Social Isolation as Risk Factors for Mortality: A Meta-Analytic Review

- Loneliness & perceived social isolation are associated with increased risk of early mortality
- Likelihood of mortality increases the more severe the isolation

Association for Psychological Science — Julianne Holt-Lunstad, Timothy B. Smith

Social Disconnectedness, Perceived Isolation, and Health among Older Adults

- Perceived isolation associated with lower levels of self-rated health
- Loneliness can thus lead to a low-rated perception of health

National Institute of Health — Erin Cornwell, Linda Waite

health & happiness

Economic Determinants of Happiness: Evidence from the US General Social Survey

- Those who describe themselves as ‘healthy’ are reported to 20% happier than average
- Those who describe themselves as ‘unhealthy’ are 8.25% less happy than average
- Healthier people tend to thus be happier

Affiliation Not Listed

Teng Guo, Lingyi Hu

income?

Individual Differences in Loss Aversion: Conscientiousness Predicts How Life Satisfaction Responds to Losses Versus Gains in Income

- People with higher salaries are no more likely to have a high life satisfaction than those that don't
- An income rise thus does not necessarily necessitate a rise in happiness
- Likewise, a fall in income might not lead to a fall in happiness

Personality and Psychology Bulletin — Christopher Boyce, Alex Wood

income has no effect on physical health

relevance

Perceived social isolation clearly has an effect on immediate mental health and long term physical health & mortality

6.8 million adults in the USA affected by depression each year

800 thousand people in the USA die by suicide each year

40 seconds pass and another death by suicide

If objective social isolation has the same effects as perceived isolation, it could help with treating depression

data

General Social Survey 2008 (GSS 2008)

- "Aims to gather data on contemporary American society in order to monitor and explain trends and constants in attitudes, behaviors, and attributes; to examine the structure and functioning of society in general"
- Subjects are adults (18+ in age) who live in the United States, in a variety of areas
- Nationally representative sample of adults, which collected basic data on these adults as well as other factors that relate to their well-being

all variables of interest taken from GSS 2008

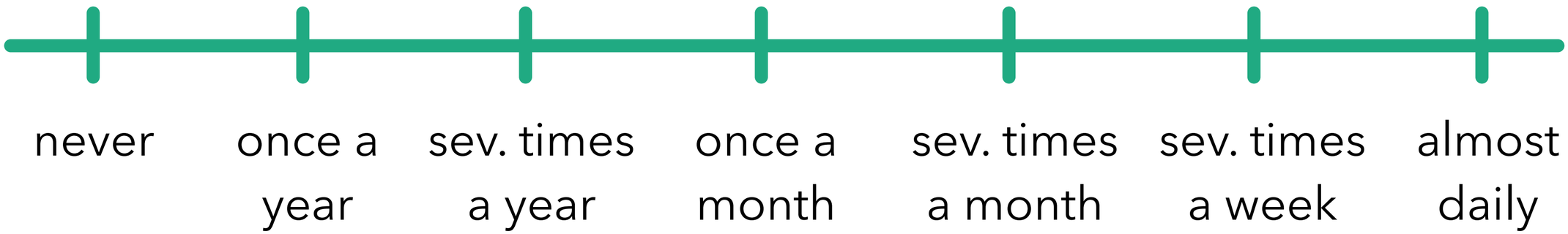
variables

Which variables are best suited for use in answering the question at hand? What needs to be controlled for?

main variables

Independent Variable: **Contact with Friends**

- Measures how many times a person interacts with his/her friends per year



Dependent Variable: **Opinion of One's Own Health**

control variables

X

Whether or Not Respondent Has Children

- Originally measured from 1 -> 8 or more children, recoded as yes or no

Is Respondent Married?

- A respondent can be single, married, separated (but still married), or divorced.

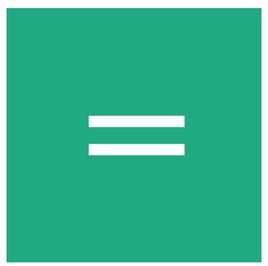
Life After Death?

- A respondent can either believe or not believe in life after death

Happiness level

- A respondent can be ‘not too happy,’ ‘pretty happy,’ or ‘very happy’

Age



results

So, should you see your friends more often if you want to be happier?

results (using logit)

Results (for independent variable) are not significant at a significance level of alpha = 0.05 or even alpha = 0.10.

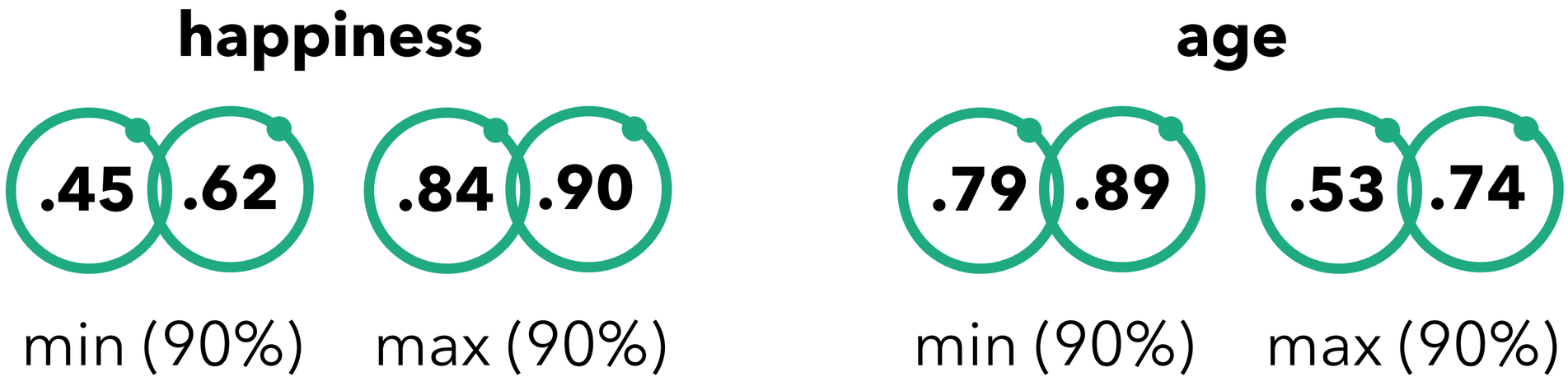
p-values

.11	.80	.69	.26	.00	.01
friends	children	marriage	after-life	happiness	age

friends not significant, happiness and age are

meaningful (first-differences)?

So, seeing your friends more often is not likely to have a statistically significant impact on how healthy you report yourself as being. Your age, and happiness, however, do. But does **statistically significant** translate to **meaningful**?



happiness and age meaningfully affect health

problems & next steps

What were some of the problems with my study, and what should I do moving forward?

problems

Some of the potential problems with my study included:

- There were other variables I may not have been able to control for. For example, certain people may have had bad/good days on the day of the survey, so they were feeling particularly unhealthy or healthy at the time.
- There are other factors at play that I could not control for. Examples: Quality of friendships, weather, etc.
- I found that happiness is correlated to health, but I know that those in good health tend to be happier, so problem of reverse causation.

so what should I do moving forward?

moving forward

Here's what I might change moving forward:

- Control for more variables, to ensure nothing is skewing the result
- Somehow figure out a way to ensure that happier people tend to be healthier, and not the other way around
- Just because increased contact with friends does not bring an increase in self-perceived health does not necessitate that it does not cause an increase in happiness
- Maybe try to take test subjects who report themselves of the same happiness level and then increase contact with their friends, holding what I can constant, while using groups of people of similar ages?

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questions?

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Appendix (1)

```
. logit hlt friends numchild marriaged lifeafterdeath hpy age

Iteration 0:   log likelihood = -318.59814
Iteration 1:   log likelihood = -294.41377
Iteration 2:   log likelihood = -293.72985
Iteration 3:   log likelihood = -293.72843
Iteration 4:   log likelihood = -293.72843

Logistic regression                                     Number of obs   =        573
                                                        LR chi2(6)      =      49.74
                                                        Prob > chi2     =     0.0000
Log likelihood = -293.72843                             Pseudo R2       =     0.0781

------------------------------------------------------------------------------
         hlt |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     friends |   .1043695   .0645234     1.62   0.106     -.022094    .2308329
    numchild |  -.0702184   .2818864    -0.25   0.803    -.6227055    .4822687
   marriaged |  -.0310143   .0763617    -0.41   0.685    -.1806805    .1186519
lifeafterdeath |  -.3156846   .2823463    -1.12   0.264    -.8690731     .237704
         hpy |   .8991868   .1667196     5.39   0.000     .5724223    1.225951
         age |   -.016818   .0066386    -2.53   0.011    -.0298295   -.0038066
       _cons |   .9961997   .5824002     1.71   0.087    -.1452838    2.137683
------------------------------------------------------------------------------
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Appendix (2)

```
setx friends mean numchild mean marriaged mean lifeafterdeath mean hpy max
age mean

.
. simqi, prval(1) level(90)

      Quantity of Interest |     Mean        Std. Err.     [90% Conf. Interval]
---------------------------+--------------------------------------------------
-
                Pr(hlt=1) |   .8738281     .0207859      .8373519    .9045562

. setx friends mean numchild mean marriaged mean lifeafterdeath mean hpy min
age mean

.
. simqi, prval(1) level(90)

      Quantity of Interest |     Mean        Std. Err.     [90% Conf. Interval]
---------------------------+--------------------------------------------------
-
                Pr(hlt=1) |   .5375052     .0510711      .4515302    .6165472
```

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Appendix (3)

```
. setx friends mean numchild mean marriaged mean lifeafterdeath mean hpy mean
age max

.
. simqi, prval(1) level(90)

      Quantity of Interest |      Mean        Std. Err.     [90% Conf. Interval]
---------------------------  +-----------------------------------------------
-
                Pr(hlt=1) |    .6357426     .0649722       .526207    .7426001

.
.
. setx friends mean  numchild mean marriaged mean lifeafterdeath mean hpy mean
age min

.
. simqi, prval(1) level(90)

      Quantity of Interest |      Mean        Std. Err.     [90% Conf. Interval]
---------------------------  +-----------------------------------------------
-
                Pr(hlt=1) |    .8469873     .0297297     .7923883    .8882727
```