[Re] Marriage and happiness: Providing evidence against a relationship between inequality and happiness in Oishi, Kesebir, and Diener (2011)

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A reference implementation of:

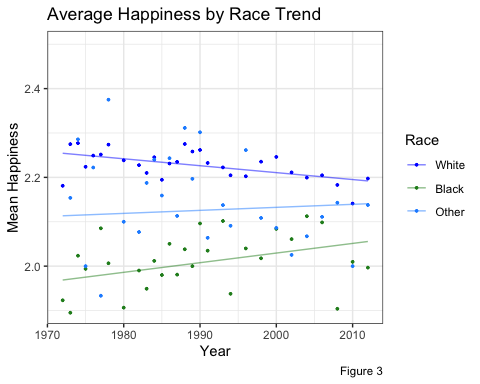
Grunberg, Rebecca L., Hyejun Kim, and Minjae Kim. 2014a. “Marriage and Happiness Grunberg Kim Kim.pdf.” Harvard Dataverse. <https://doi.org/10.7910/DVN/25655/MB980L>

Which is a reference implementation of:

Oishi, S., Kesebir, S., & Diener, E. (2011). Income Inequality and Happiness. Psychological Science, 22(9), 1095–1100. <https://doi.org/10.1177/0956797611417262>

The purpose of the following paper is to do a replication of the paper “Marriage and happiness: Providing evidence against a relationship between inequality and happiness in Oishi, Kesebir, and Diener (2011)” (Grunberg, Kim, and Kim [2014a](#ref-marriagehappiness)). There is a crisis of reproducibility and replication in data science field. This paper follows the ReScience method of replicating a research paper to further validate the results of the paper. This particular replication is unique, because the paper being replicated is actually an alternate implementation of another paper, “Income Inequality and Happiness” (Oishi, Kesebir, and Diener [2011](#ref-incomeinequality)). While the first paper draws a connection between happiness and income, the second paper calls in the question the data used for this conclusion, and pulls in additional data for analysis. This second analysis, focused more on marriage and happiness is what this paper seeks to replicate.

# Introduction



# Methods

The paper of interest(Grunberg, Kim, and Kim [2014b](#ref-data)) used linear models to show that the correlations drawn by the original findings(Oishi, Kesebir, and Diener [2011](#ref-incomeinequality)) do not have an effect on the response variable, happiness, by factoring in interactions of variables known correlated variables.

In this replication paper, three artifacts from the original paper(Grunberg, Kim, and Kim [2014b](#ref-data)) were reproduced. The first artifact is “figure 2 (ADD FIGURE 2)…” which plots the mean happiness by year and race. The second artifact is table1 which shows the linear regression model’s coefficients. The third artifact is table2 which shows the muliti correlation coefficients.

## Dataset

Marriage and Happiness(Grunberg, Kim, and Kim [2014b](#ref-data)), obtained data from the General Social Survey (GSS) and the US Census Bureau. The subset of GSS data provided omitted the RACE and MARITAL columns crucial to the replication of the figures and models.

In order to complete the missing data, the original dataset was queried directly using the gssr [add reference here?] R package. This new dataset was then merged with the unchanged US Census Bureau data found in gini\_..csv.

## Replicating Figure 2 - [INSER FULL FIGURE NAME HERE]

The original R code used the standard R libaries for visualizations. The da

#> [1] 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25  
#> [26] 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44  
#> [1] "hello world"

## Replicating Table 1

## Replicating Table 2

# Results

Estimate

p value

Logged Income

0.19

0.00

Age

0.03

0.00

Sex

0.01

0.23

White

0.12

0.00

Married

0.23

0.00

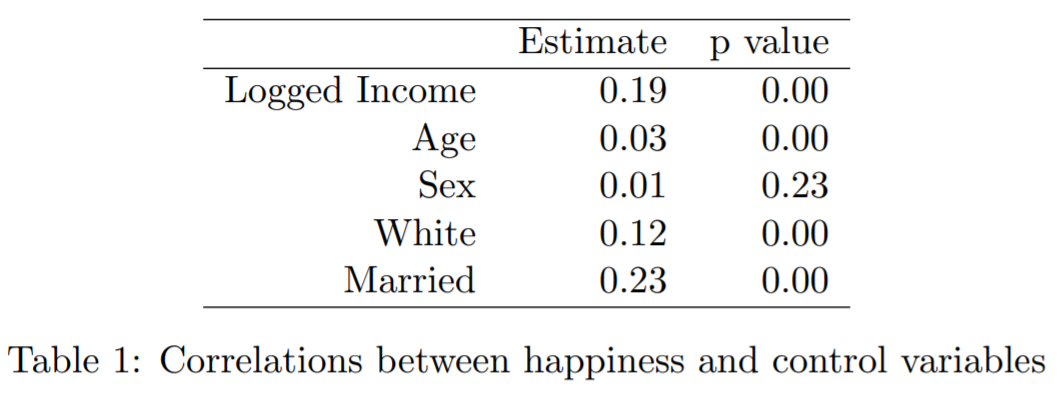


Figure 1: Table 1 from the original paper

We were table to almost exactly reproduce the results from Table 1 in the original paper that shown in Figure 1. The only difference is the estimate for Sex was 0.01 in the publication compared to 0.00 in our replication. This may be due to rounding versions or an underlying exclusion of outliers we saw with the above plot.

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu % Date and time: Sat, Feb 22, 2020 - 11:17:47

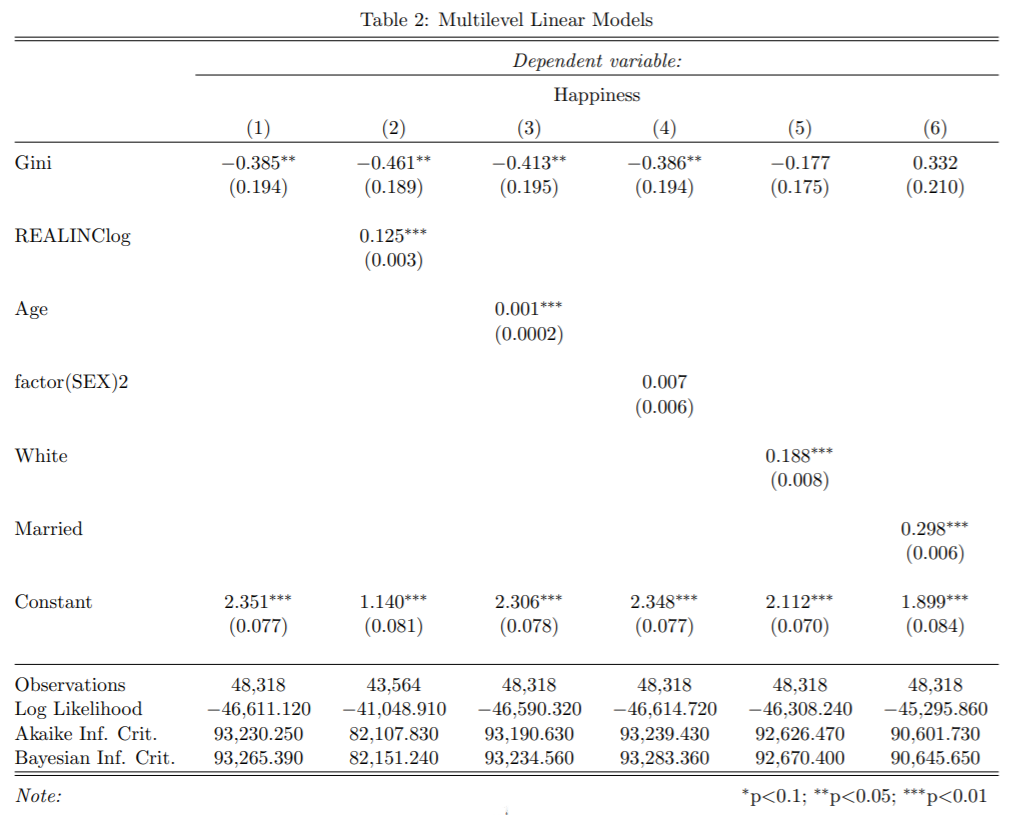


Figure 2: Table 2 from the original paper

Again we were able to almost identically reproduce the results from Table 2 in the original paper, shown in Figure 2. Aside from slight variability in the second and third decimal places, our results from the linear models are very close. There are several differences wit the number of observations, listed in the bottom of the table, which is to be expected as we are using a package with the GSS data and it is likely not an identical snapshot to the one used in the original paper. Overall though these two tables were indeed highly reproducible even with different input data.

# Conclusion

Replication of this paper was utlimately contingent on tracing back the original dataset. Without this resource being cited and publically available, it would not have been possible to replicate the different tables and figure presented in the original paper.

# References Cited

Reference 1: Grunberg, Kim, and Kim ([2014a](#ref-marriagehappiness))  
Reference 2: Grunberg, Kim, and Kim ([2014b](#ref-data)) Reference 3: Oishi, Kesebir, and Diener ([2011](#ref-incomeinequality))

Grunberg, Rebecca L., Hyejun Kim, and Minjae Kim. 2014a. “Marriage and Happiness Grunberg Kim Kim.pdf.” Harvard Dataverse. <https://doi.org/10.7910/DVN/25655/MB980L>.

———. 2014b. “Replication data for: Marriage and happiness: Providing evidence against a relationship between inequality and happiness in Oishi, Kesebir, and Diener (2011).” Harvard Dataverse. <https://doi.org/10.7910/DVN/25655>.

Oishi, Shigehiro, Selin Kesebir, and Ed Diener. 2011. “Income Inequality and Happiness.” *Psychological Science* 22 (9): 1095–1100. <https://doi.org/10.1177/0956797611417262>.