

World Happiness Data Analysis

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2024-04-30

First things first, here are some necessary packages to load!

```
library(car)
library(leaps)
library(lubridate)
library(rvest)
library(olsrr)
library(corrplot)
library(leaps)
library(MASS)
```

INTRODUCTION

When scrolling through seemingly endless datasets, one in particular caught our eye. World Happiness. Happiness is such an unquantifiable topic – an enigma. We were immediately hooked. Is there a crisis in happiness? What variables play the largest roles in determining life satisfaction? The world happiness report attempts each year to measure the happiness of over 100 countries. To do this, they poll individuals on the Cantril Ladder scale to rate their life satisfaction from 0-10. Then, they collect data on a variety of variables described below including GDP per capita, Life Expectancy, perception of corruption, and even more. Even though the official happiness rankings are solely dependent on a self-evaluated life satisfaction rating, we were astonished by the correlations and excited to find out more to the age-old question: what makes one happy?

Data

- **Country name:** Country where Participants were surveyed (Categorical)
- **World Region:** World Region Country is in according to the World Bank (Categorical)
- **Life Ladder:** The self-evaluated life satisfaction rating from 0-10 on The Cantril Ladder scale. Essentially, participants place their lives on a metaphorical ladder with the bottom being the worst situation and the top rung being the best life possible.(Continuous)
- **Log GDP per capita:** The natural log of the Gross Domestic Product (Consumption + Investment + Government Spending + Net Exports) per resident in dollars (log Purchasing Power of resident) from the World Bank (Continuous)
- **Healthy life expectancy at birth:** How long a person born is expected to live in years from the World Health Organization (Continuous)

Gallup World Poll(GWP) questions involve a binary answer(0=no, 1=yes) that is then taken on a national average for the following variables:

- **Social support:** GWP question “If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?” (Continuous)
- **Freedom to make life choices:** GWP question “Are you satisfied or dissatisfied with your freedom to choose what you do with your life?” (Continuous)
- **Generosity:** The residual of regressing the national average GWP question “Have you donated money to a charity in the past month?” on log GDP per capita (Continuous)
- **Perceptions of corruption:** GWP questions, “Is corruption widespread throughout the government or not?” and “Is corruption widespread within businesses or not?” Where data for

government corruption are missing, the perception of business corruption is used as the overall corruption-perception measure.” (Continuous)

- **Positive affect:** GWP questions about laughter and enjoyment: “Did you smile or laugh a lot yesterday?”; “Did you experience Enjoyment during A LOT OF THE DAY yesterday?” (Continuous)
- **Negative affect:** GWP questions about worry, sadness and anger: “Did you experience Worry during A LOT OF THE DAY yesterday?”; “Did you experience Sadness during A LOT OF THE DAY yesterday?”; “Did you experience Anger during A LOT OF THE DAY yesterday?” (Continuous)

1) Data Cleaning

Initially, the data was relatively clean to begin with with variables like GDP already transformed into a log scale and the Generosity variable already having its residuals regressed. However, upon analysis of the data, many rows had missing values for multiple GWP variables. Thus, we decided to eliminate each entry that was not complete with na.omit. Furthermore, we decided to solely evaluate data from 2019 for continuity. Lastly, we wanted to create a second categorical variable to analyze each country’s data in a broader sense. So, we sorted each country into a region based upon the World Bank data through a merge function. Unfortunately, this excluded a select amount of data from Countries not included in the World Data Bank such as Taiwan and Hong Kong and limited our dataset slightly. The dataset was originally found from the World Happiness Report and included information from 2003-2020, carrying 1949 entries. After cleaning, it holds 123 entries (123 countries’ data from 2019).

Before cleaning, the first 6 entries and the dimensions looked like this:

```
## Country.name year Life.Ladder Log.GDP.per.capita Social.support
## 1 Afghanistan 2008 3.724 7.370 0.451
## 2 Afghanistan 2009 4.402 7.540 0.552
## 3 Afghanistan 2010 4.758 7.647 0.539
## 4 Afghanistan 2011 3.832 7.620 0.521
## 5 Afghanistan 2012 3.783 7.705 0.521
## 6 Afghanistan 2013 3.572 7.725 0.484
## Healthy.life.expectancy.at.birth Freedom.to.make.life.choices Generosity
## 1 50.80 0.718 0.168
## 2 51.20 0.679 0.190
## 3 51.60 0.600 0.121
## 4 51.92 0.496 0.162
## 5 52.24 0.531 0.236
## 6 52.56 0.578 0.061
## Perceptions.of.corruption Positive.affect Negative.affect
## 1 0.882 0.518 0.258
## 2 0.850 0.584 0.237
## 3 0.707 0.618 0.275
## 4 0.731 0.611 0.267
## 5 0.776 0.710 0.268
## 6 0.823 0.621 0.273
```

```
## [1] 1949 11
```

After cleaning, the first 6 entries and the dimensions looked like this:

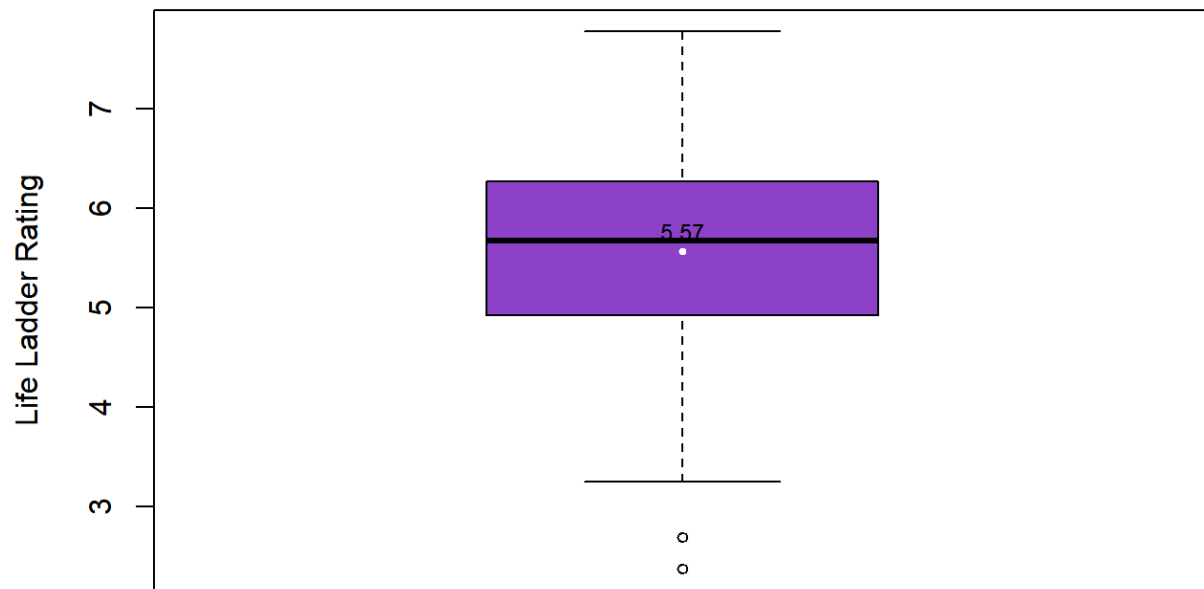
```
##      Country      World.Region Life.Ladder Log.GDP.per.capita
## 1 Afghanistan      South Asia      2.375      7.697
## 2   Albania Europe and Central Asia      4.995      9.544
## 3   Algeria Middle East and North Africa      4.745      9.337
## 4  Argentina Latin America and Caribbean      6.086     10.000
## 5   Armenia Europe and Central Asia      5.488      9.522
## 6  Australia      East Asia and Pacific      7.234     10.815
##  Social.support Healthy.life.expectancy.at.birth Freedom.to.make.life.choices
## 1      0.420      52.4      0.394
## 2      0.686      69.0      0.777
## 3      0.803      66.1      0.385
## 4      0.896      69.0      0.817
## 5      0.782      67.2      0.844
## 6      0.943      73.9      0.918
##  Generosity Perceptions.of.corruption Positive.affect Negative.affect
## 1    -0.108      0.924      0.351      0.502
## 2    -0.099      0.914      0.681      0.274
## 3     0.005      0.741      0.585      0.215
## 4    -0.211      0.830      0.826      0.319
## 5    -0.172      0.583      0.598      0.430
## 6     0.121      0.430      0.770      0.202
```

```
## [1] 123 11
```

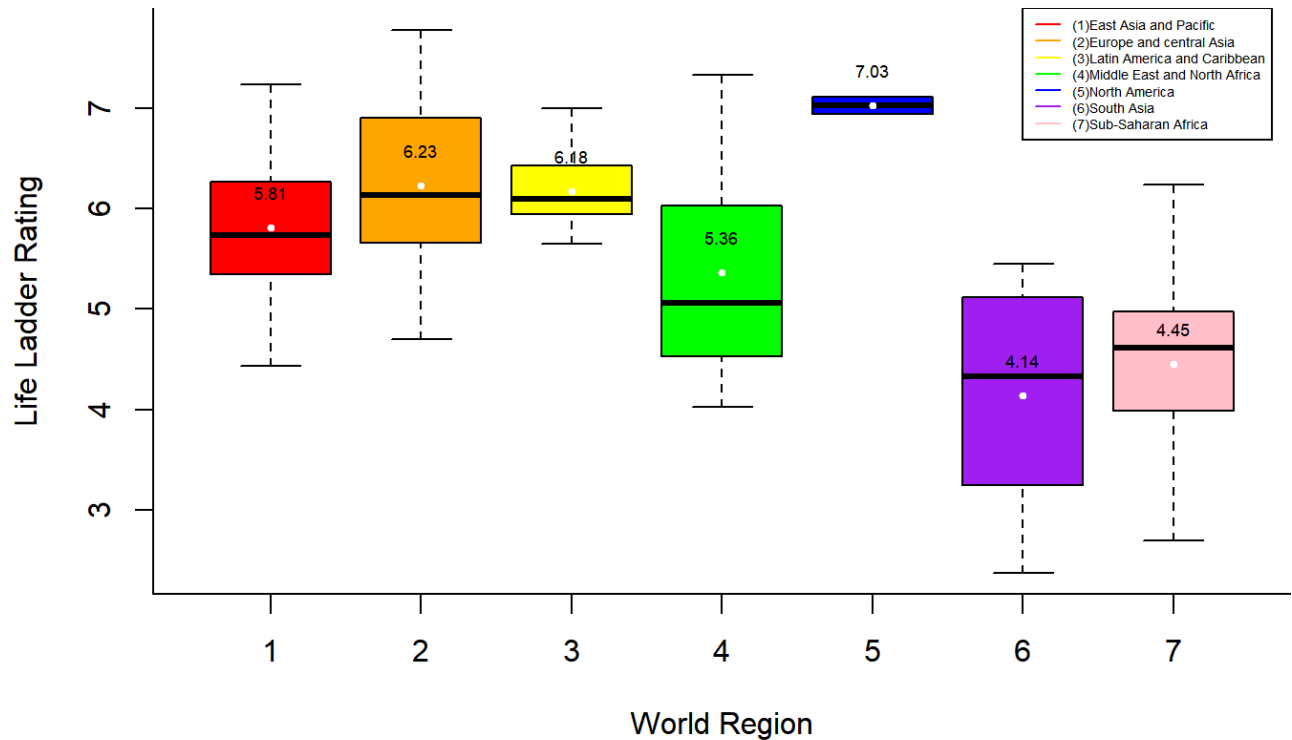
2) Plots

First, we wanted to visualize general trends and distributions of happiness globally then regionally through the use of two boxplots. Overall, the average life satisfaction/happiness rating was a 5.573 with a wide range between 2.375 and 7.780. Then, regionally, it appears that North Americans are the most happy and South Asians are the least happy. All of the regions have a wide range of happiness between Countries except North America; however, North America catagorizes less countries to analyze.

Distribution of Global Life Ladder Rankings



Life Ladder Rating Distribution By World Regions



We were also just interested in the extremes like which country is the most/least satisfied/happy? What does its GWP values look like?

It appears that in 2019, those in Finland were the most happy and those in Afganistan were the least.

```
##      Country      World.Region Life.Ladder Log.GDP.per.capita
## 38 Finland Europe and Central Asia      7.78      10.792
##      Social.support Healthy.life.expectancy.at.birth Freedom.to.make.life.choices
## 38      0.937      72      0.948
##      Generosity Perceptions.of.corruption Positive.affect Negative.affect
## 38      -0.052      0.195      0.755      0.181
```

```
##      Country World.Region Life.Ladder Log.GDP.per.capita Social.support
## 1 Afghanistan South Asia      2.375      7.697      0.42
##      Healthy.life.expectancy.at.birth Freedom.to.make.life.choices Generosity
## 1      52.4      0.394      -0.108
##      Perceptions.of.corruption Positive.affect Negative.affect
## 1      0.924      0.351      0.502
```

Then we analyzed which country's individuals have the most spending power. What does its GWP values look like? The answer was Luxembourg at \$114,462.

```
##      Country      World.Region Life.Ladder Log.GDP.per.capita
## 72 Luxembourg Europe and Central Asia      7.404      11.648
##      Social.support Healthy.life.expectancy.at.birth Freedom.to.make.life.choices
## 72      0.912      72.6      0.93
##      Generosity Perceptions.of.corruption Positive.affect Negative.affect
## 72      -0.045      0.39      0.789      0.212
```

What about the lowest? We found that the lowest was a tie between Chad and Lesotho (two countries in Sub-Saharan Africa) at 7.365, or simply \$1059.

```
##      Country      World.Region Life.Ladder Log.GDP.per.capita Social.support
## 74 Malawi Sub-Saharan Africa      3.869      6.966      0.549
##      Healthy.life.expectancy.at.birth Freedom.to.make.life.choices Generosity
## 74      58.3      0.765      0.004
##      Perceptions.of.corruption Positive.affect Negative.affect
## 74      0.68      0.537      0.348
```

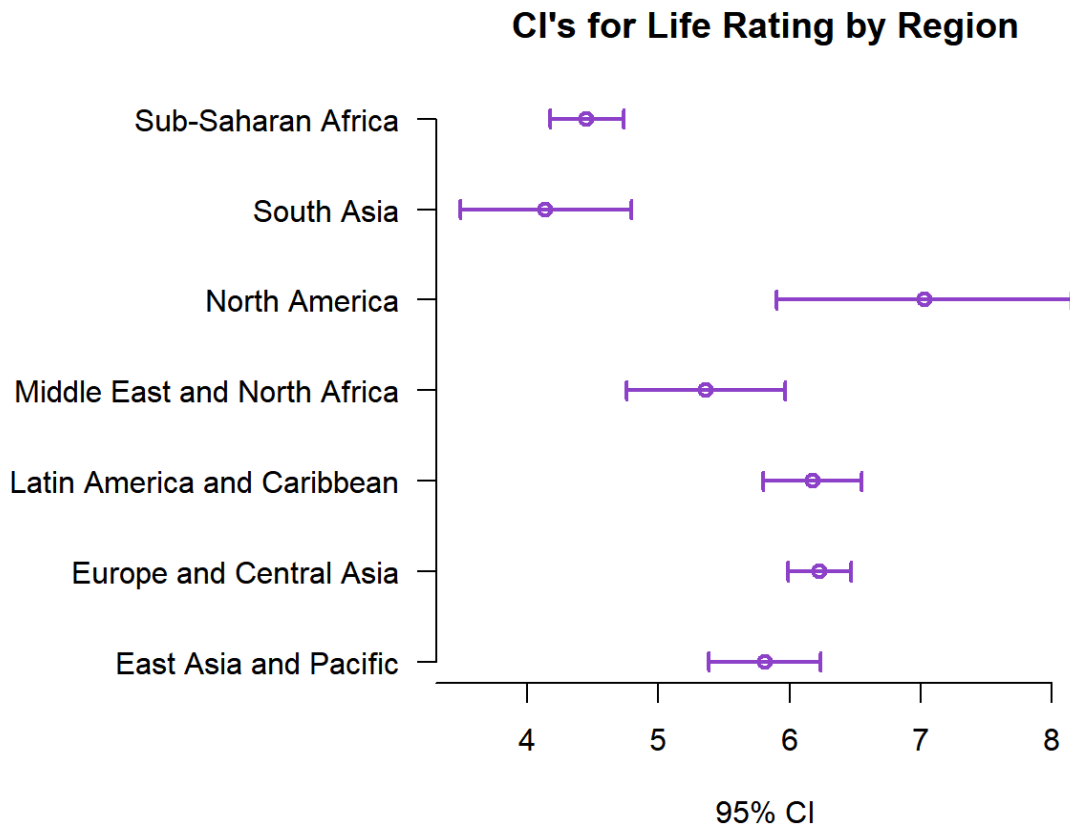
The highest GDP per capita was over 100 fold larger than the lowest.

Finally, how does America compare?

```
##      Country World.Region Life.Ladder Log.GDP.per.capita Social.support
## 130 United States North America      6.944      11.043      0.917
##      Healthy.life.expectancy.at.birth Freedom.to.make.life.choices Generosity
## 130      68.2      0.836      0.144
##      Perceptions.of.corruption Positive.affect Negative.affect
## 130      0.707      0.815      0.244
```

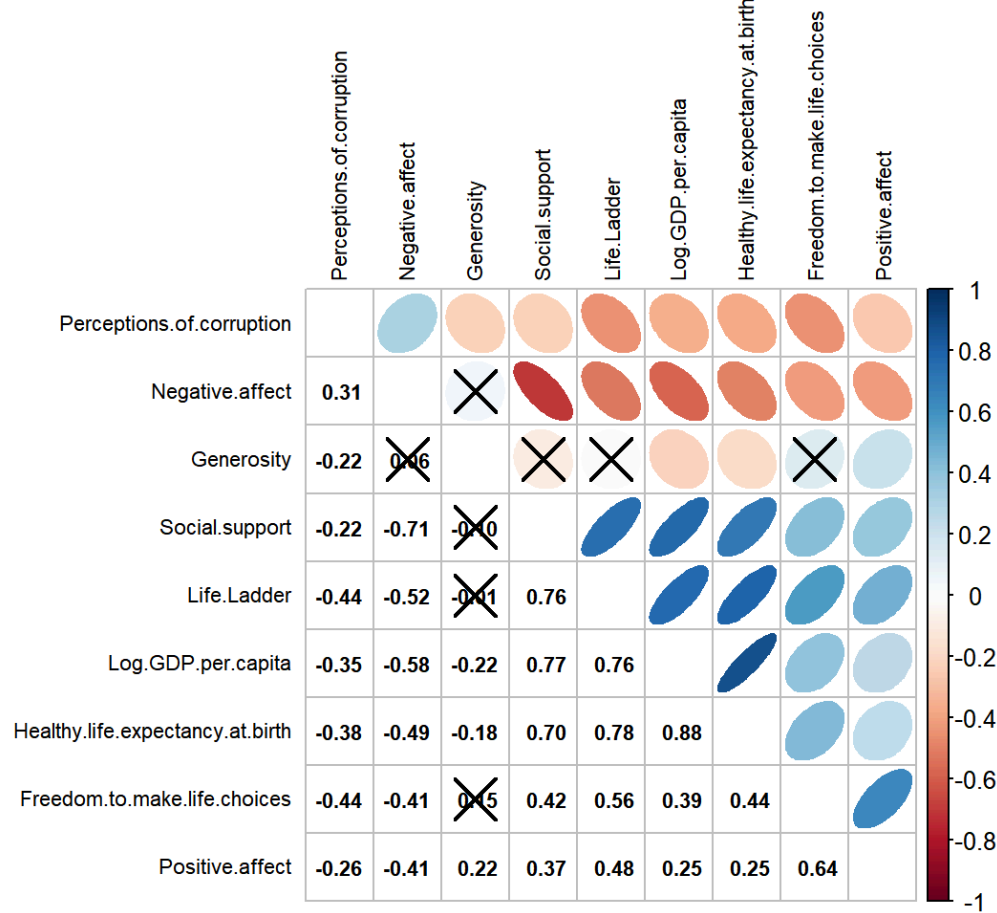
We then wanted to find the 95% confidence intervals of each region's life happiness in order to determine how representative the previous analysis was. The trends all are still in tact with the box plot. Additionally, it shows that while the ranges of life ladder ratings were large, within each region, 95% of the data was conserved in ranges of less than 2, mostly around 1.

```
##                                2.5 % 97.5 %
## happiness$World.RegionEast Asia and Pacific      5.39  6.24
## happiness$World.RegionEurope and Central Asia    5.99  6.47
## happiness$World.RegionLatin America and Caribbean 5.80  6.55
## happiness$World.RegionMiddle East and North Africa 4.76  5.96
## happiness$World.RegionNorth America             5.90  8.15
## happiness$World.RegionSouth Asia                 3.49  4.79
## happiness$World.RegionSub-Saharan Africa         4.17  4.73
```

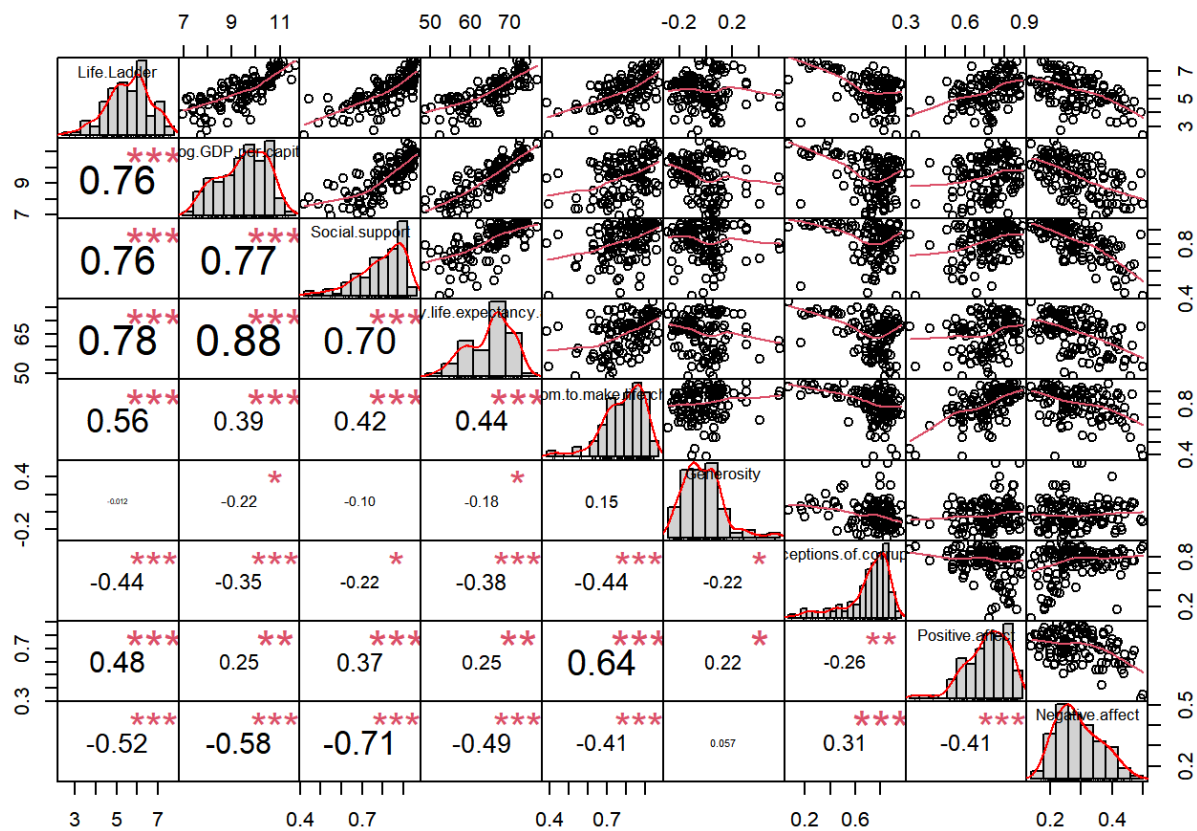


Next, we wanted to determine how the Gallup World Poll variables correlated with one another as well as the Life Ladder Rating through a mixed correlation plot. This showed that all the variables had at least slight correlation with every other variable with the exception of the variable generosity demonstrating its unpredictable nature. Interestingly, every other variable related to another with the highest positive correlation between among Life Expectancy and Log GDP (the more spending power you have the longer your live) and the highest negative correlation between Social Support and Negative Affect (being able to easily rely on others reduces worry, anger, and sadness).

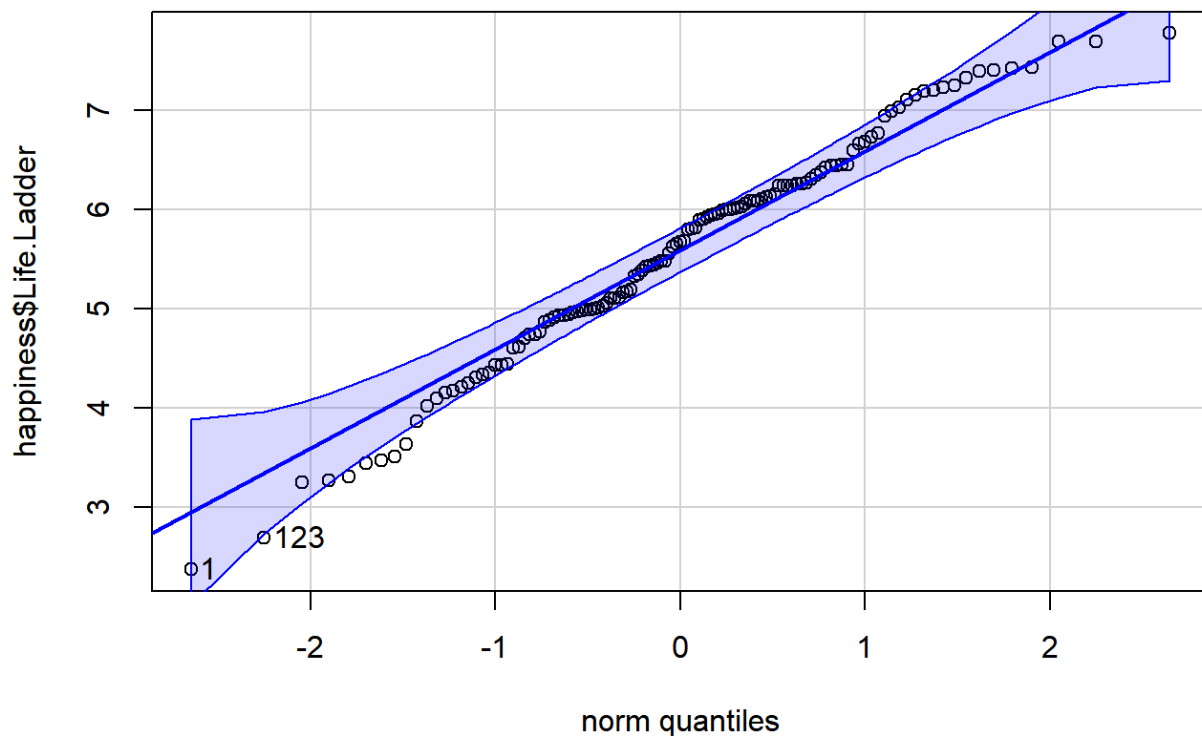
```
## corrpilot 0.92 loaded
```



However, with so many interlinked variables, we wanted to see it in a more linear and general context. Within the mixed plot we saw strong trends of linearity within the scatterplots and almost every histogram was either left or right skewed, demonstrating strong correlation between variables but also non-normal distribution of GWP variables globally. Evidently, our data has some issues with multicollinearity as many of the positive effectors of life satisfaction correlate within one another such as GDP and life expectancy and the same with the negative effectors such as negative affect and perceptions of corruption.



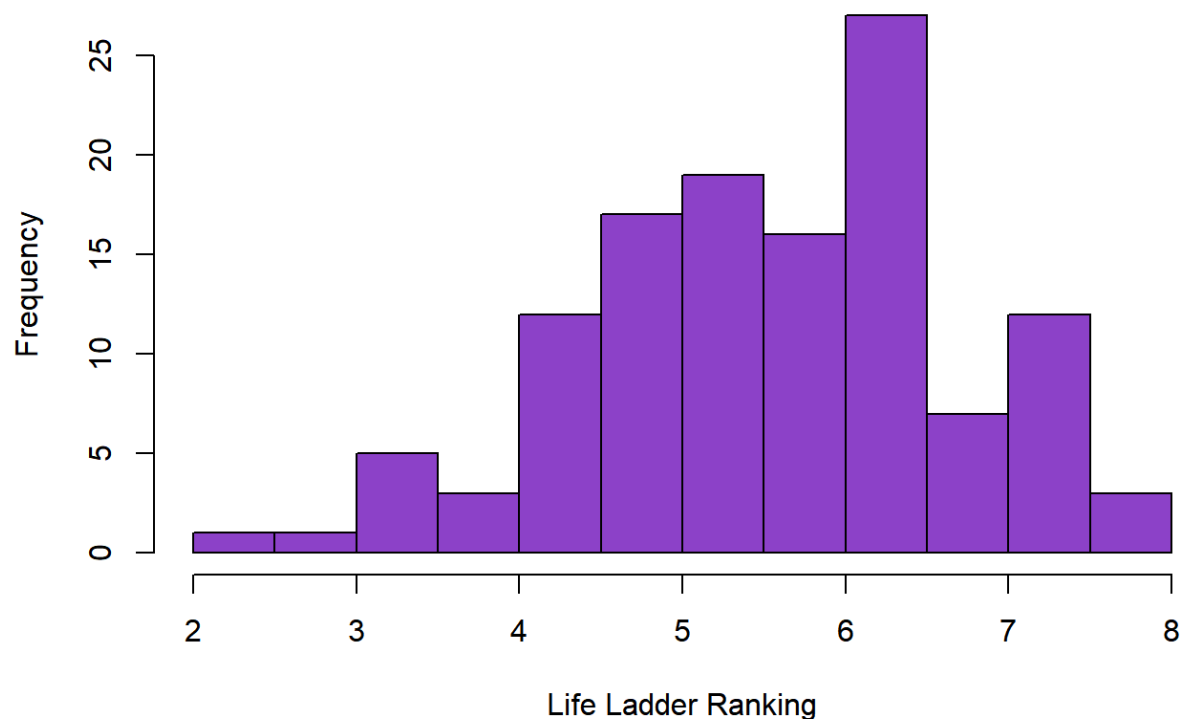
However, as displayed by the Normal Quantile Plot, the data regarding life satisfaction/happiness ratings by Life Ladder were still decently normally distributed. However, there were some outliers.



```
## [1] 1 123
```


A histogram also confirms this almost normal distribution. It is slightly right skewed.

Distribution of Average Global Life Ladder Rank Values



3) Tests

Upon the knowledge of these correlations, significance of the interactions were analyzed through a bootstrap to see how this would compare to a random sample. We were the most interested to see the correlation between social support and life ladder ranking (due to current findings about increasing loneliness and knowledge of the 2020 quarantine), thus we ran a correlation test for a correlation of 0.7565044 (significant at a p-value of $2.2e-16$). This demonstrates a strong linear relationship between the two variables. The histograms of these correlations and of the regressions seem very normally distributed from the bootstrap with strong confidence intervals in both. Furthermore, the bootstrap confidence intervals were shown to be wider than the actual intervals due to a larger sample size and being a theoretical perfect probability coverage of 95%. The bootstrap correlation cis are between 0.6722118 and 0.8308850 and the regression slopes are between 0.06717938 and 0.09502402.

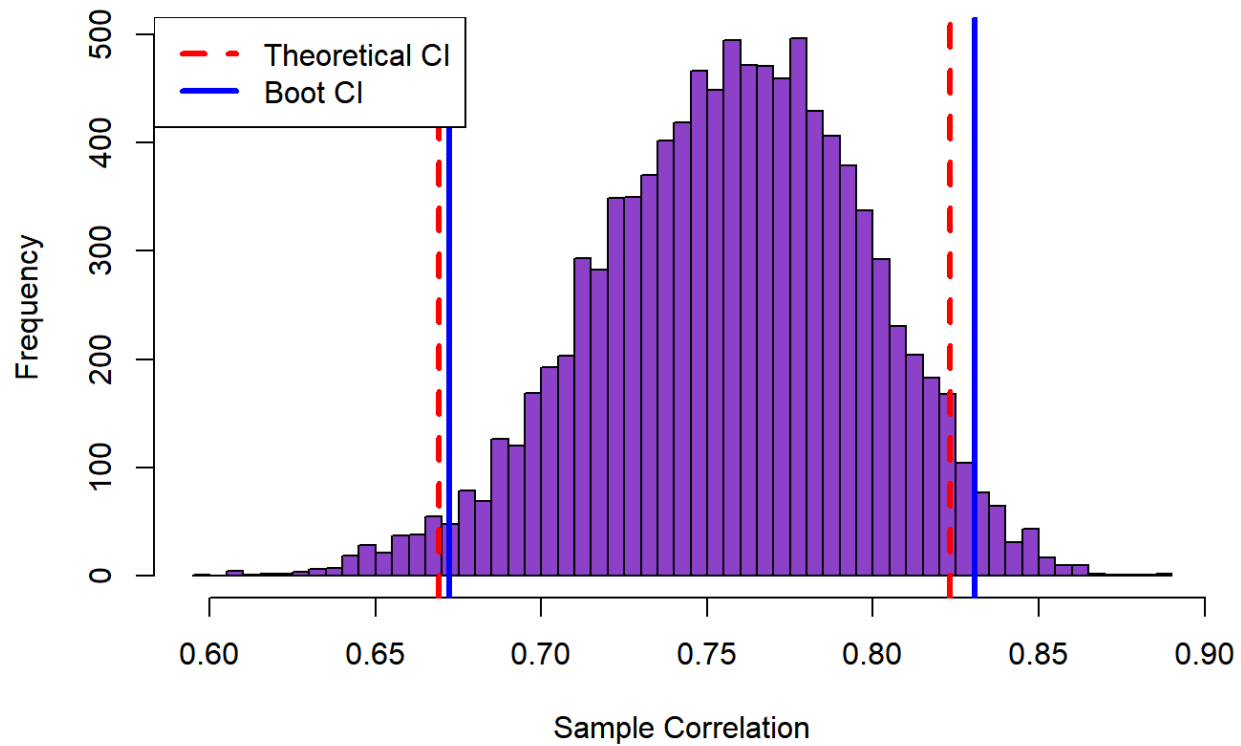
```
## [1] 0.7565044
```

```
##
## Pearson's product-moment correlation
##
## data: happiness$Life.Ladder and happiness$Social.support
## t = 12.724, df = 121, p-value < 2.2e-16
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## 0.6690778 0.8232792
## sample estimates:
## cor
## 0.7565044
```

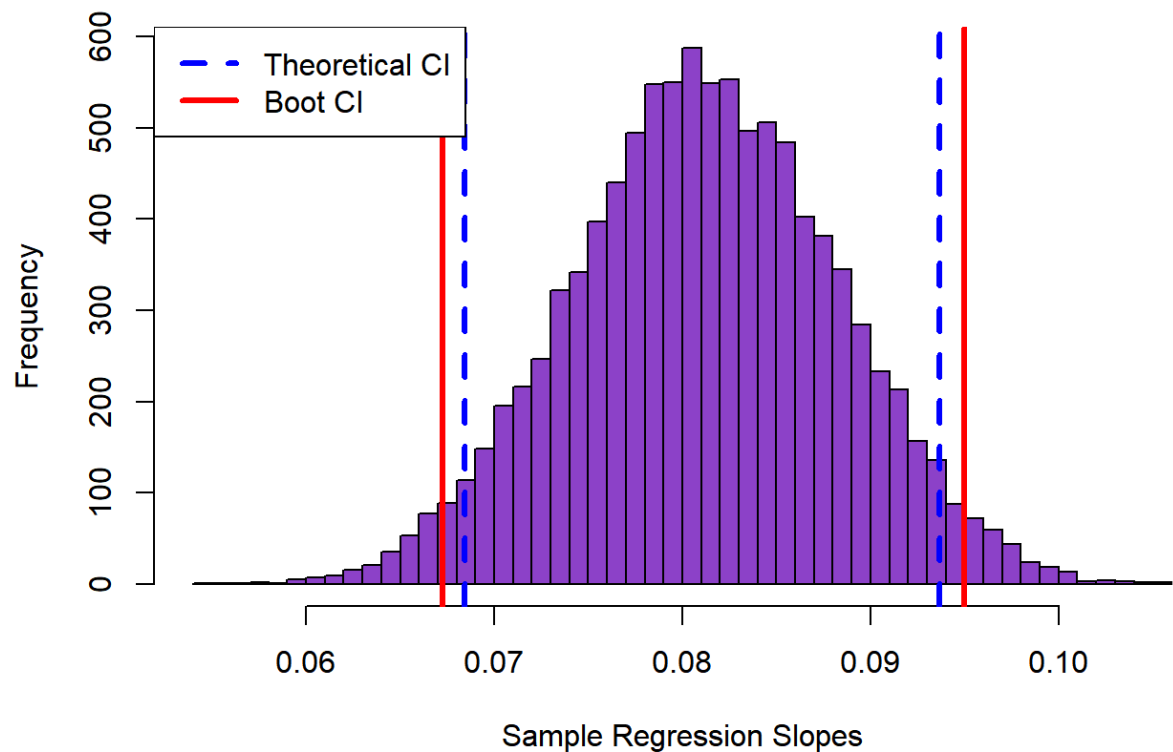
```
##      2.5%      97.5%  
## 0.6723660 0.8306821
```

```
##      2.5%      97.5%  
## 0.06727201 0.09497273
```

Bootstrapped Correlations

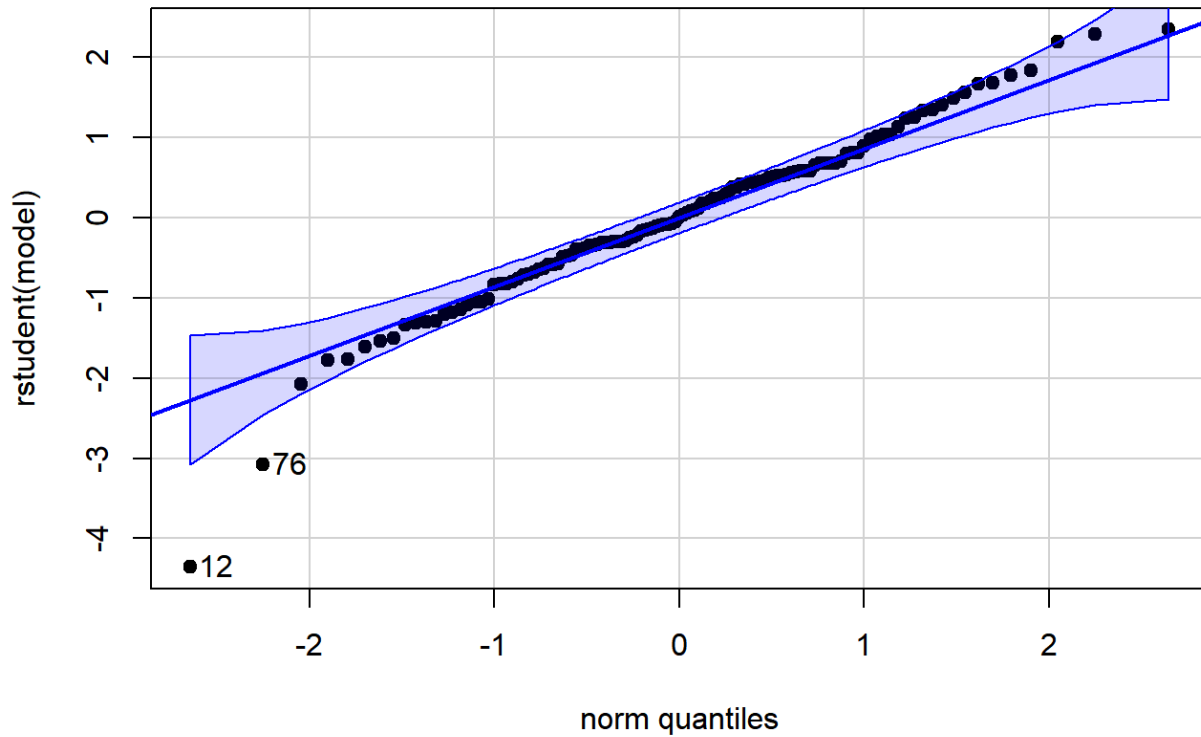


Bootstrapped Regression Slopes

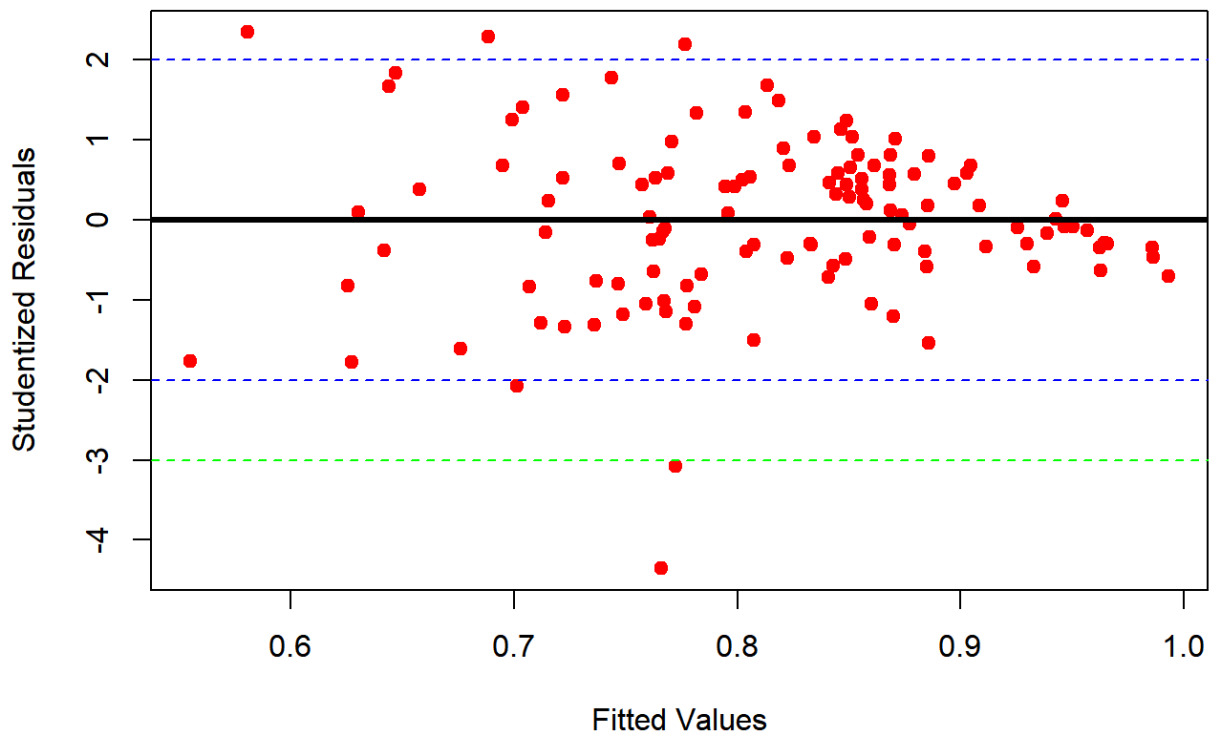


We then wanted to test for possible heteroskedasticity and see if there can be an equal assumption of variance between the Life Ladder Ratings and Social Support through a Residuals Plot. The results are hard to read and are inconclusive; however, there might be signs of heteroskedasticity due to unequal distribution across the 0 in the Fits Vs. Residuals plot with multiple outliers.

NQ Plot of Studentized Residuals, Residual Plots



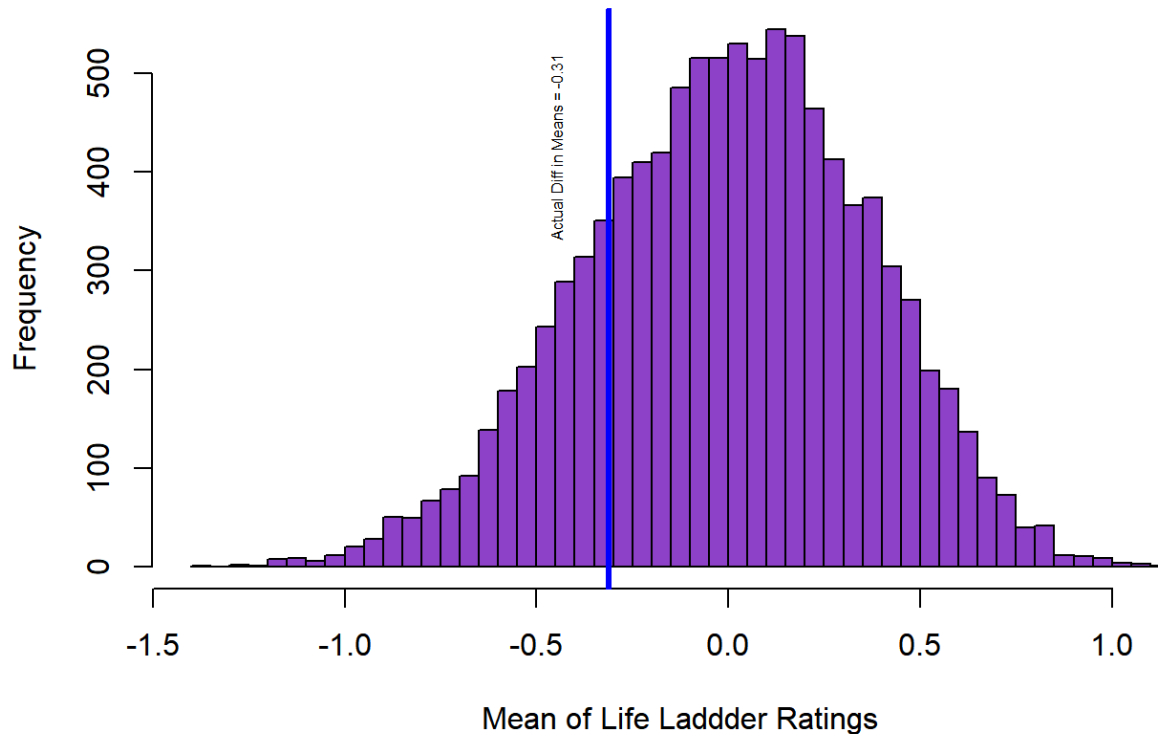
Fits vs. Studentized Residuals, Residual Plots



4) Permutation Test

Since South Asia and Sub-Saharan Africa's results were quite similar being the two lowest ranked regions, we wanted to see if there was a statistically significant difference between their mean Life Ladder Ratings. To do so, we performed a permutation test that determined that while there is a measurable difference in means around (0.31), this is a statistically insignificant distinction with a p-value of 0.399 (>0.05).

Difference in Mean Life Ladder Ratings by World Region



```
## [1] 0.4081
```

This finding was confirmed with a two-sample t-test with a insignificant p-value = 0.5488. There is no significant difference between the mean Life Ladder ratings between South Asians and Sub-Saharan Africans.

```
##
## Welch Two Sample t-test
##
## data: Life.Ladder by World.Region
## t = -0.63616, df = 5.8372, p-value = 0.5488
## alternative hypothesis: true difference in means between group South Asia and group
## Sub-Saharan Africa is not equal to 0
## 95 percent confidence interval:
## -1.5194774 0.8957899
## sample estimates:
##      mean in group South Asia mean in group Sub-Saharan Africa
##                4.140500                4.452344
```

Since it was insignificant, we wanted to compare the World Regions with the greatest and second greatest mean Ladder Ratings to see if there is a significant difference. With a p-value of 0.0003496, the difference was significant.

```
##
## Welch Two Sample t-test
##
## data: Life.Ladder by World.Region
## t = -5.2263, df = 10.31, p-value = 0.0003496
## alternative hypothesis: true difference in means between group Europe and Central A
sia and group North America is not equal to 0
## 95 percent confidence interval:
## -1.1364723 -0.4590277
## sample estimates:
## mean in group Europe and Central Asia          mean in group North America
##                                6.22875                                7.02650
```

Overall, it seems as if there is a significant difference between the top two regions for happiness (North America and Europe/Central Asia) at a p-value of 0.0003496; however, there is not a significant difference in Life Ladder Ratings between the two least rated world regions (South Asia and Sub-Saharan Africa).

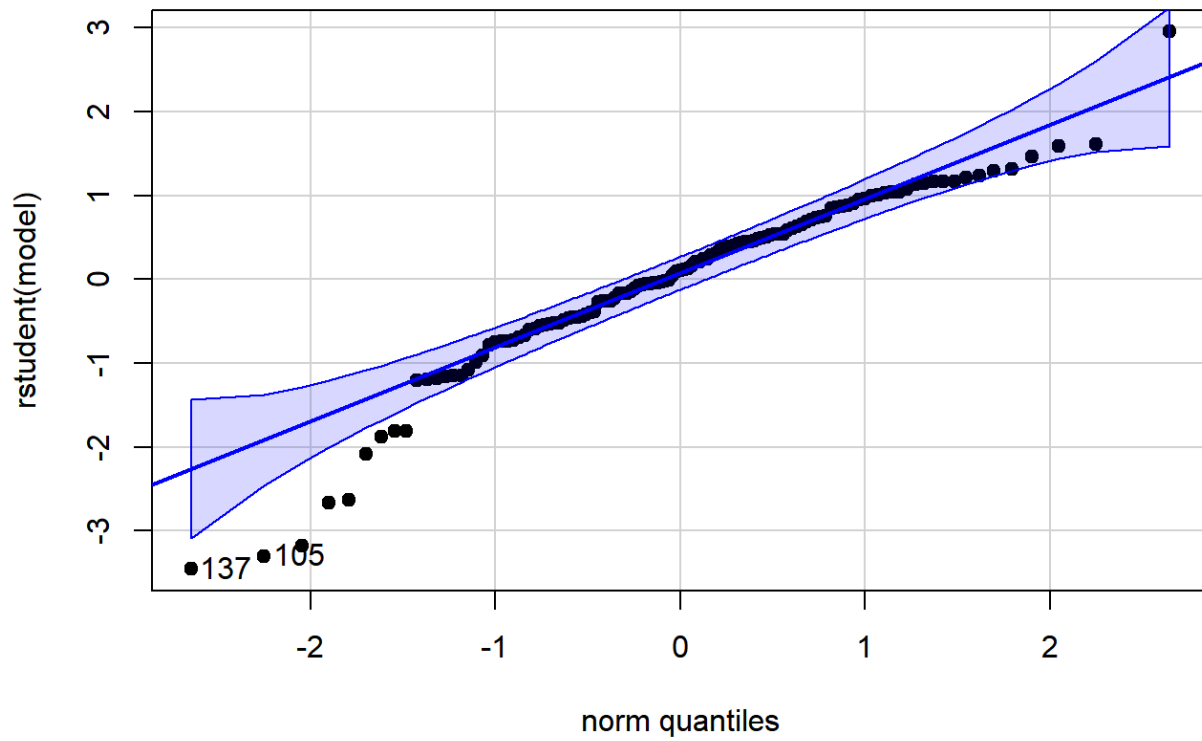
5) Backwards Stepwise Regression

Description of Plan

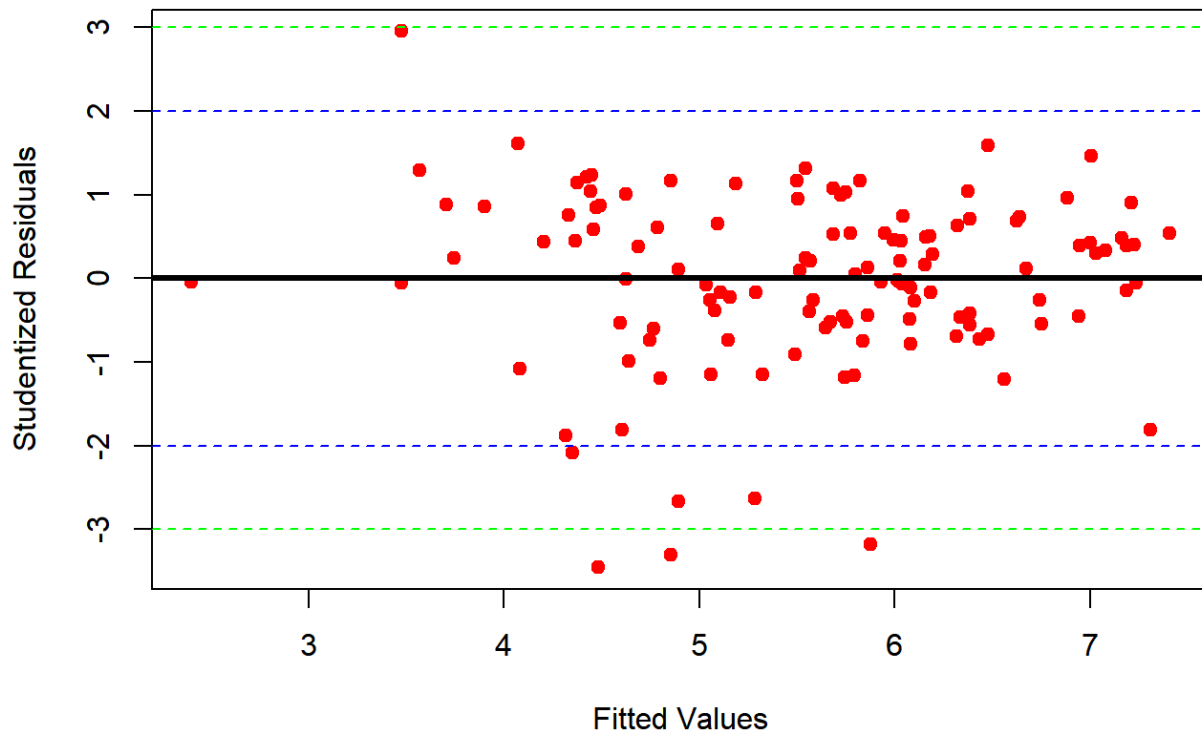
We initially attempted a backwards stepwise regression using all of the variables except Country.Name. This allows us to see which variables were significant predictors of Life.Ladder.

```
##
## Call:
## lm(formula = Life.Ladder ~ Healthy.life.expectancy.at.birth +
##   Perceptions.of.corruption + Positive.affect + Social.support +
##   Negative.affect, data = happiness)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.7867 -0.2818  0.0565  0.3645  1.5022
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    -3.95166     0.90115  -4.385 2.55e-05 ***
## Healthy.life.expectancy.at.birth  0.07372     0.01107   6.663 9.25e-10 ***
## Perceptions.of.corruption    -1.02029     0.29628  -3.444 0.000797 ***
## Positive.affect      2.26613     0.50821   4.459 1.90e-05 ***
## Social.support      4.05512     0.72444   5.598 1.46e-07 ***
## Negative.affect      1.85763     0.85565   2.171 0.031950 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5525 on 117 degrees of freedom
## Multiple R-squared:  0.7742, Adjusted R-squared:  0.7646
## F-statistic: 80.25 on 5 and 117 DF,  p-value: < 2.2e-16
```

NQ Plot of Studentized Residuals, Residual Plots

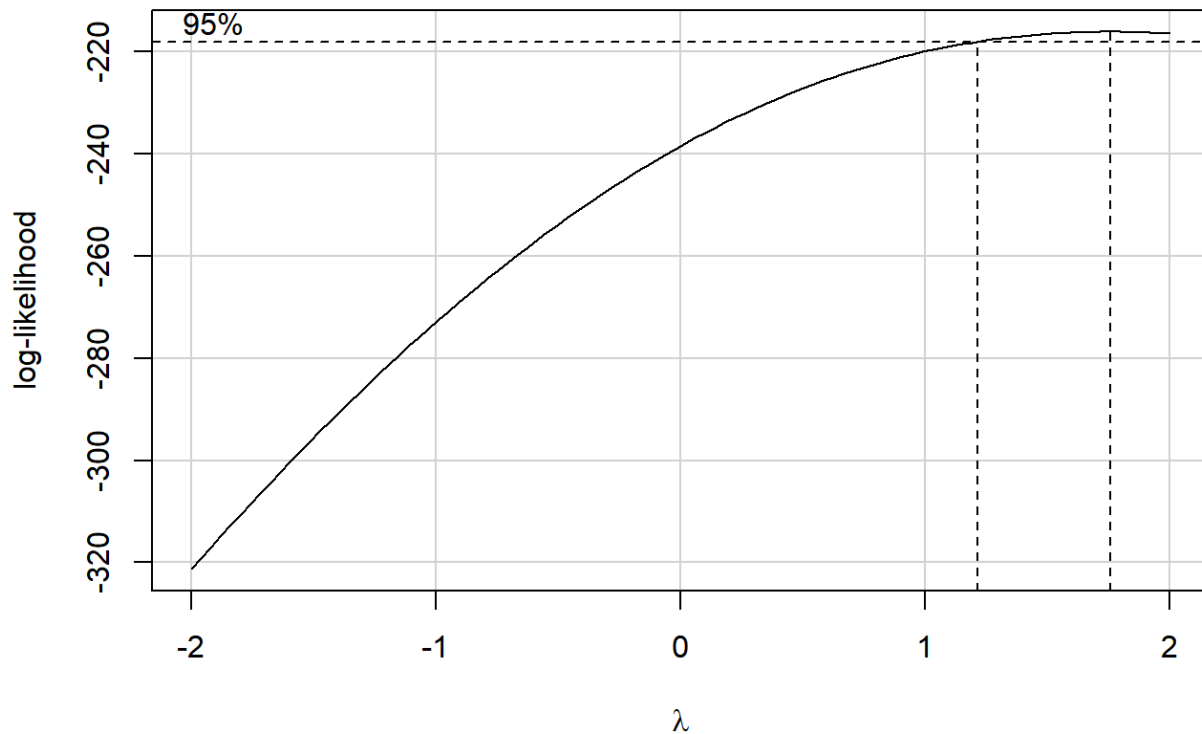


Fits vs. Studentized Residuals, Residual Plots



Yay! Only 5 significant predictors remain in the data, and it looks relatively normal!

Profile Log-likelihood

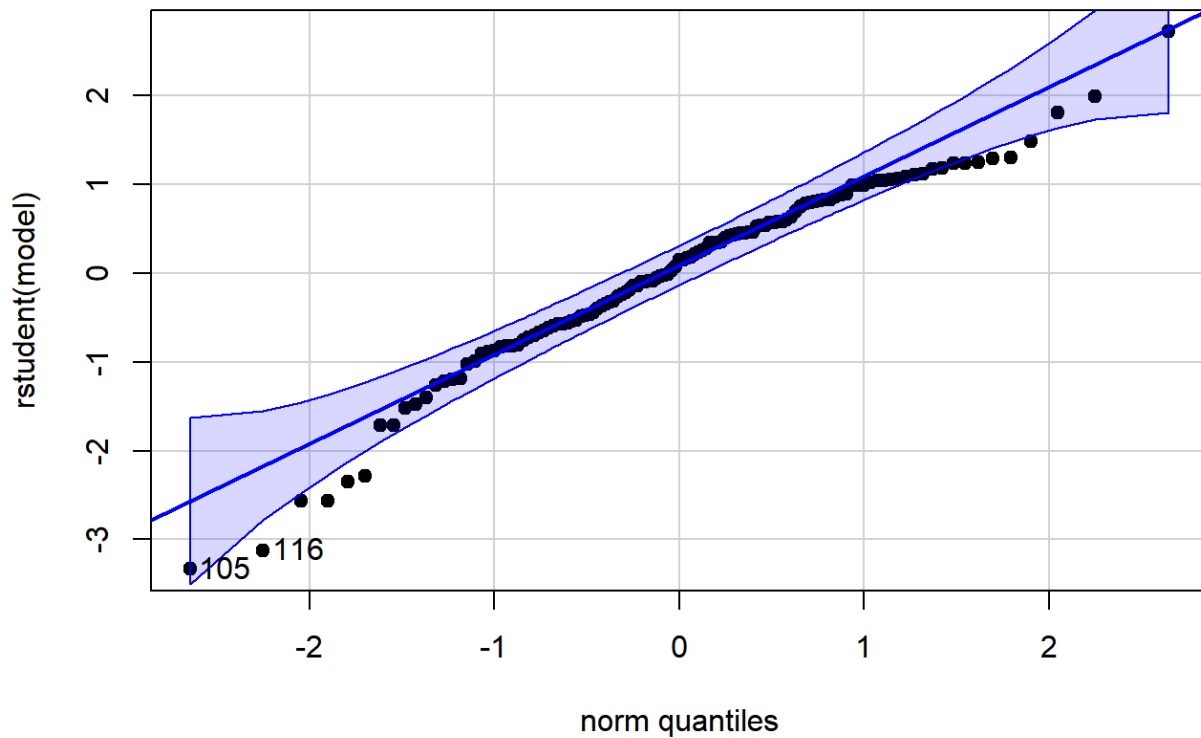


```
## [1] 1.757576
```

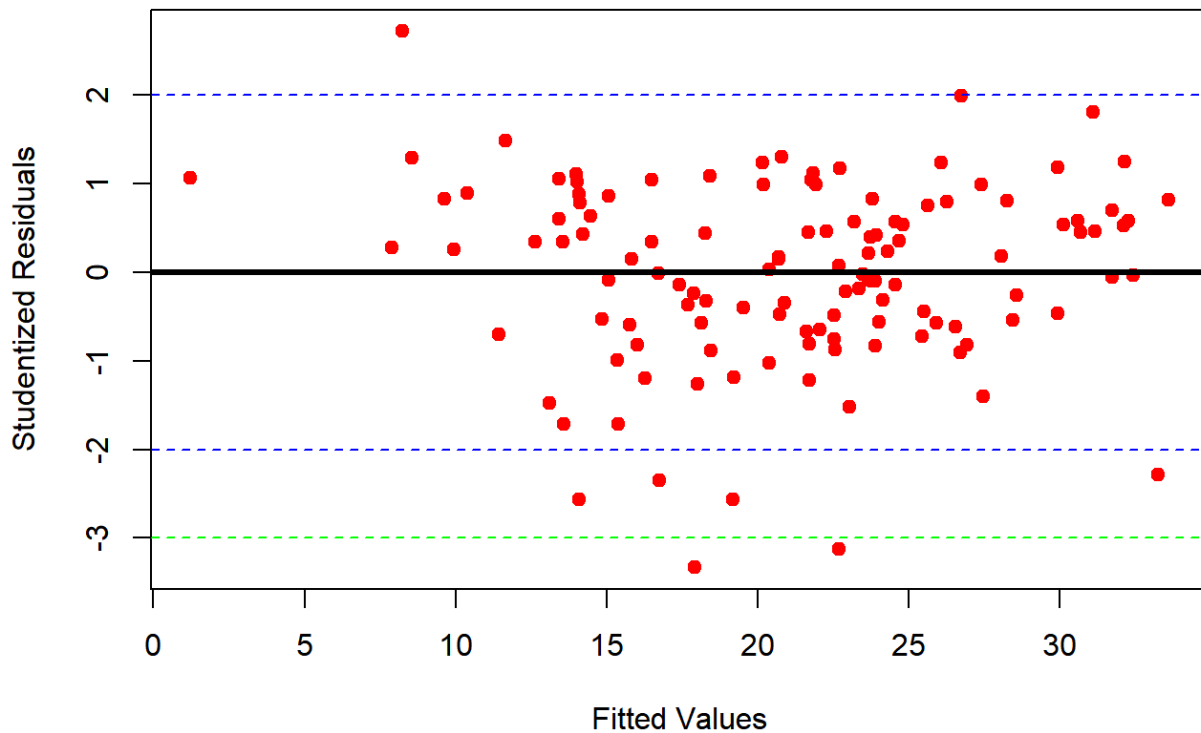
Let's run a boxCox transformation to try to make it look a bit nicer.

```
##
## Call:
## lm(formula = Life.Ladder^1.76 ~ Healthy.life.expectancy.at.birth +
##     Perceptions.of.corruption + Positive.affect + Social.support +
##     Negative.affect, data = happiness)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -10.133  -1.962   0.513   2.593   8.603
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    -36.39580     5.57364  -6.530 1.77e-09 ***
## Healthy.life.expectancy.at.birth  0.45984     0.06844   6.719 7.00e-10 ***
## Perceptions.of.corruption    -8.47865     1.83249  -4.627 9.66e-06 ***
## Positive.affect    13.73400     3.14329   4.369 2.71e-05 ***
## Social.support     25.10168     4.48067   5.602 1.43e-07 ***
## Negative.affect    11.92402     5.29224   2.253  0.0261 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 3.417 on 117 degrees of freedom
## Multiple R-squared:  0.7854, Adjusted R-squared:  0.7762
## F-statistic: 85.63 on 5 and 117 DF,  p-value: < 2.2e-16
```

NQ Plot of Studentized Residuals, Residual Plots



Fits vs. Studentized Residuals, Residual Plots



The final residuals and Normal Quantile plot is shown after performing a backwards stepwise regression on the data. The final r^2 is 0.78, which means that 78% of the Life.Ladder variable can be explained by the five predictors. No heteroskedasticity can be seen, but the graph doesn't look completely normal. Additionally, two outliers can be seen on the left. The five predictors left after

performing a backwards stepwise regression and removing Logged GDP per Capita, Generosity, Freedom to make life choices, and world region are Life expectancy, Perceptions of corruption, Positive affect, Social support, and Negative affect.

5.5) *Best Subsets Regression*

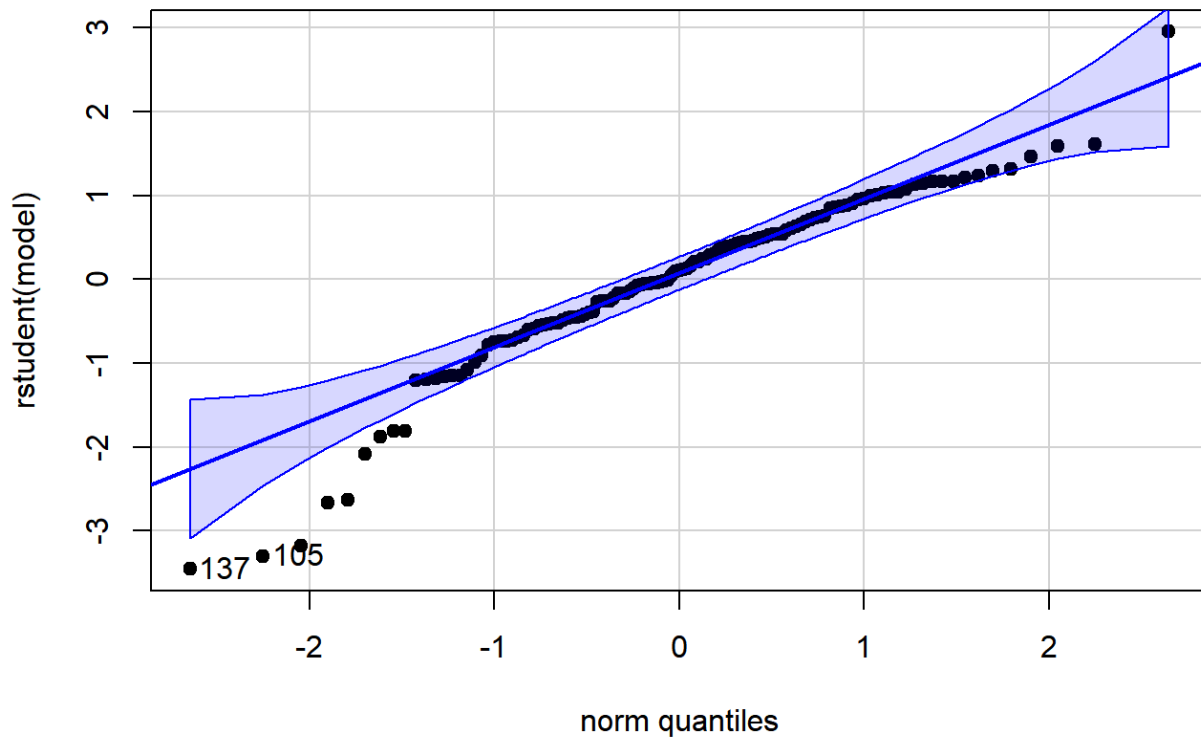
Just in case the backwards stepwise regression didn't give the best result, we also ran a best subsets regression to see which model is the best. We want to find the best model that has the most significant predictors. We will test the r squared, adjusted r squared, BIC, and CP to find which is the best. We will then run a final model using the 5 predictors suggested by the BIC.

```
## [1] 123 11
```

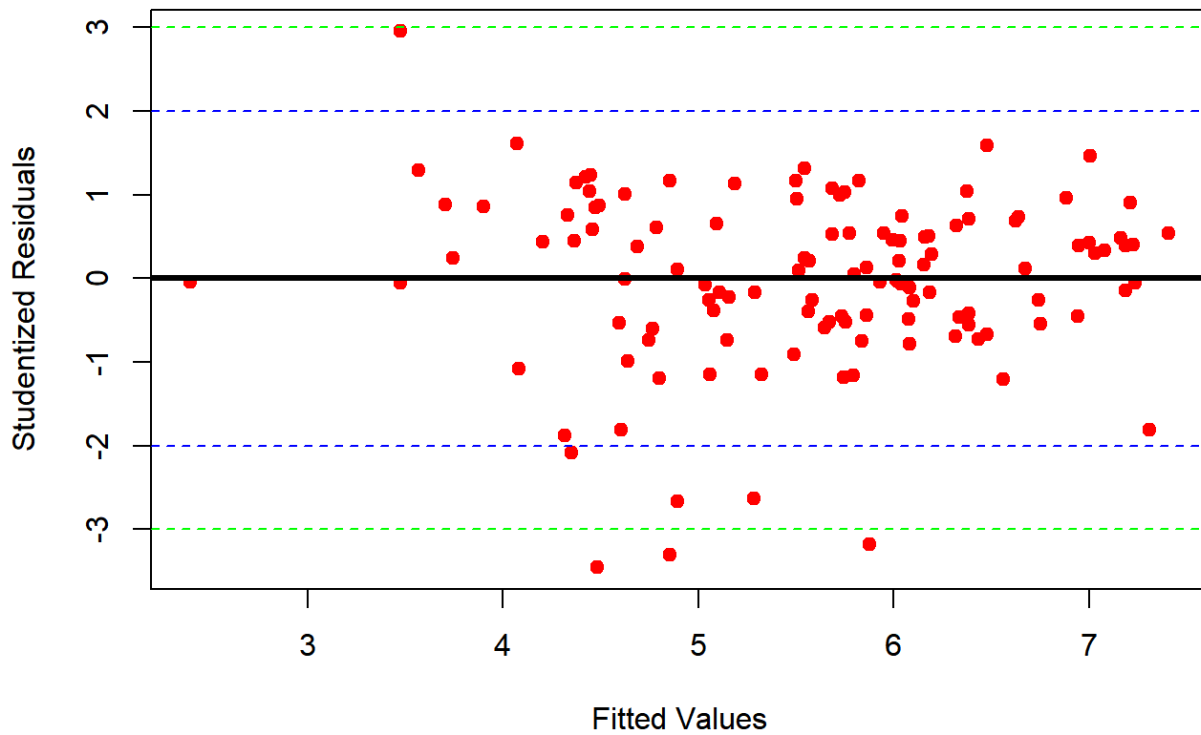
```
## [1] "Social.support"          "Healthy.life.expectancy.at.birth"  
## [3] "Perceptions.of.corruption" "Positive.affect"  
## [5] "Negative.affect"
```

The BIC, which suggests a model with 5 predictors, has the best significance and we will use it for the final model. From the p values, the single best predictor of Life.Ladder is life expectancy, because it is the only predictor in the model with one predictor.

NQ Plot of Studentized Residuals, Residual Plots

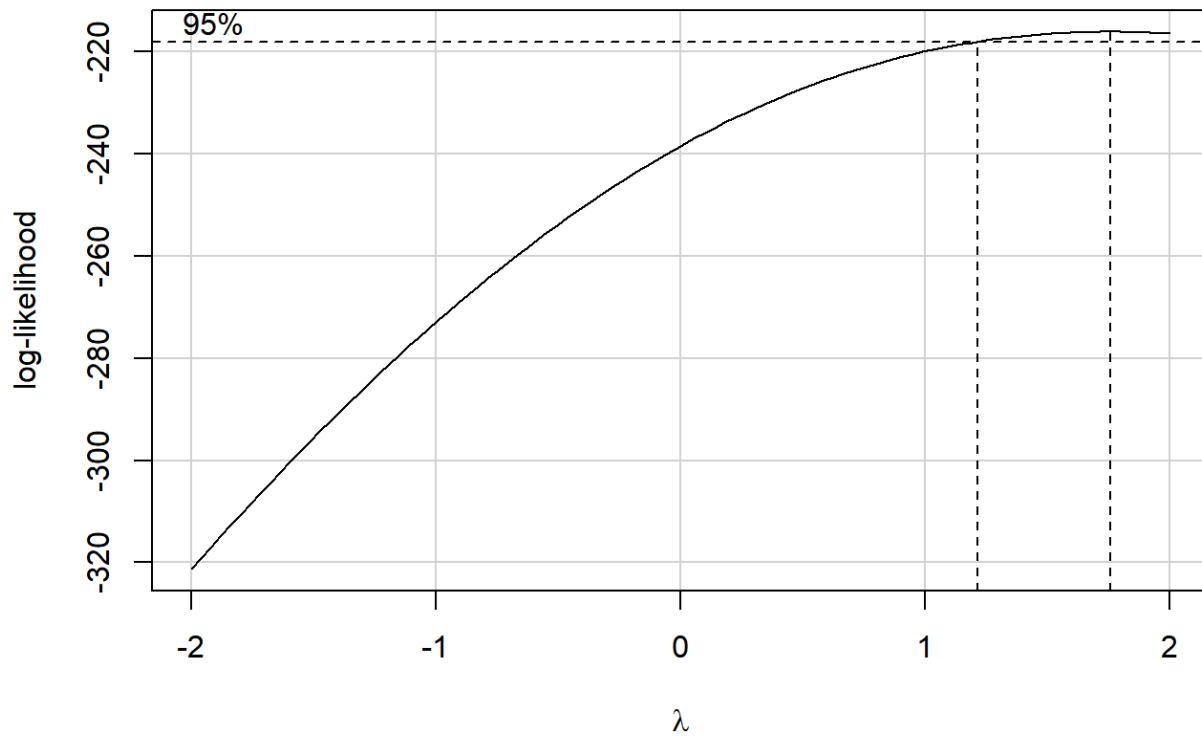


Fits vs. Studentized Residuals, Residual Plots



It looks ok, but we will run a boxCox transformation to make the residuals look more normal.

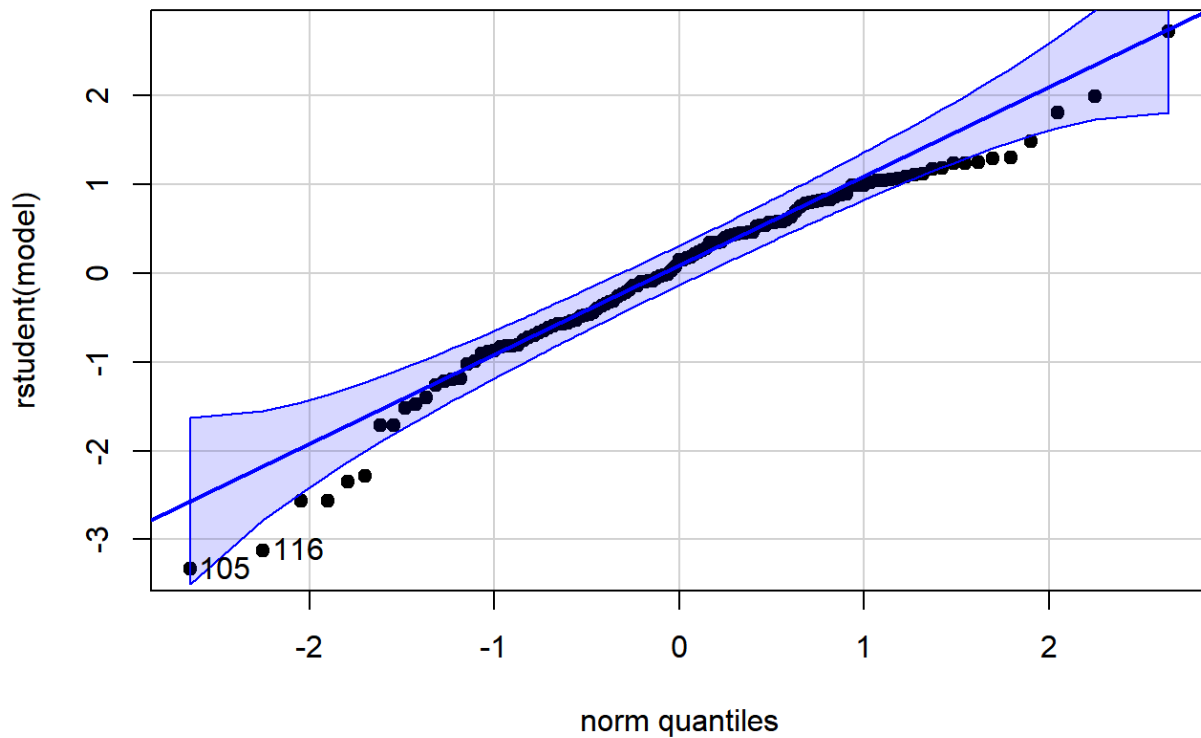
Profile Log-likelihood



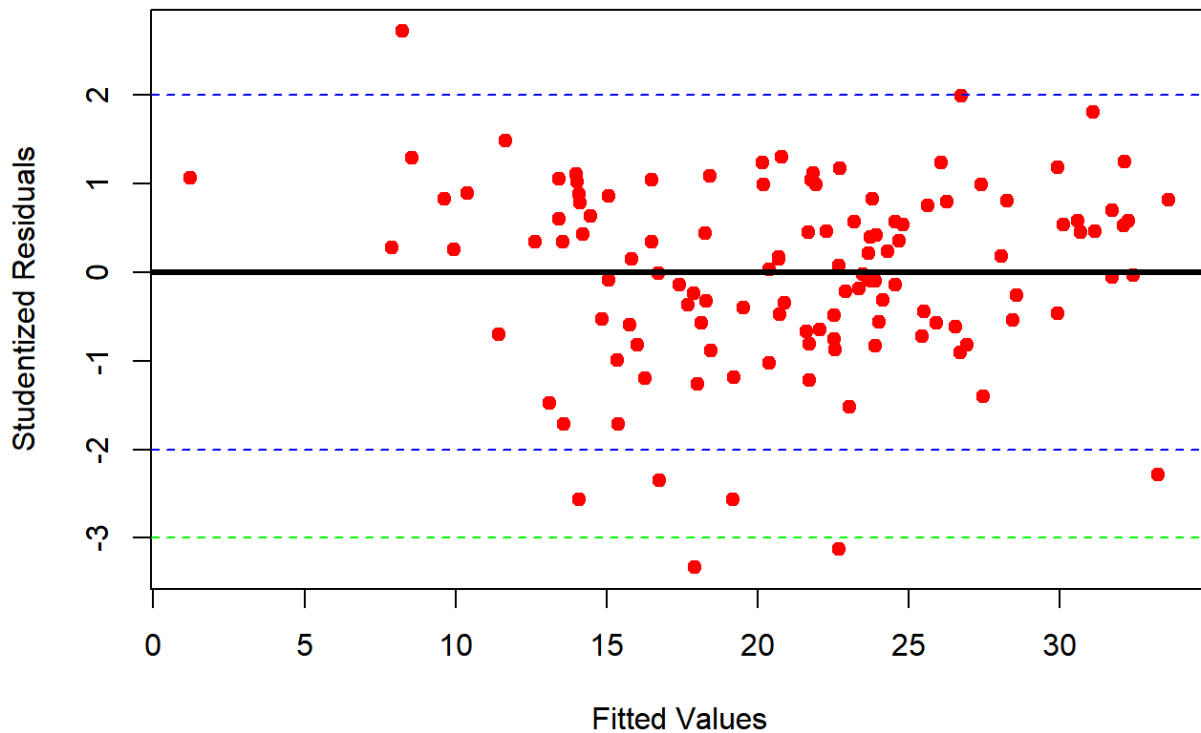
```
## [1] 1.757576
```

```
##
## Call:
## lm(formula = Life.Ladder^1.76 ~ ., data = happinessfinal)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -10.133  -1.962   0.513   2.593   8.603
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    -36.39580     5.57364  -6.530 1.77e-09 ***
## Social.support     25.10168     4.48067   5.602 1.43e-07 ***
## Healthy.life.expectancy.at.birth  0.45984     0.06844   6.719 7.00e-10 ***
## Perceptions.of.corruption    -8.47865     1.83249  -4.627 9.66e-06 ***
## Positive.affect     13.73400     3.14329   4.369 2.71e-05 ***
## Negative.affect     11.92402     5.29224   2.253  0.0261 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 3.417 on 117 degrees of freedom
## Multiple R-squared:  0.7854, Adjusted R-squared:  0.7762
## F-statistic: 85.63 on 5 and 117 DF, p-value: < 2.2e-16
```

NQ Plot of Studentized Residuals, Residual Plots



Fits vs. Studentized Residuals, Residual Plots



A transformation of 1.76 is suggested, and a summary of the final model along with a fits vs residuals plot and normal quantile plot are shown above. From the results, we can see that there are some outliers leftover, but the results look relatively normal and there is no heteroskedasticity. It turns out that the results using the BIC end up suggesting the same 5 predictors as the backwards stepwise.

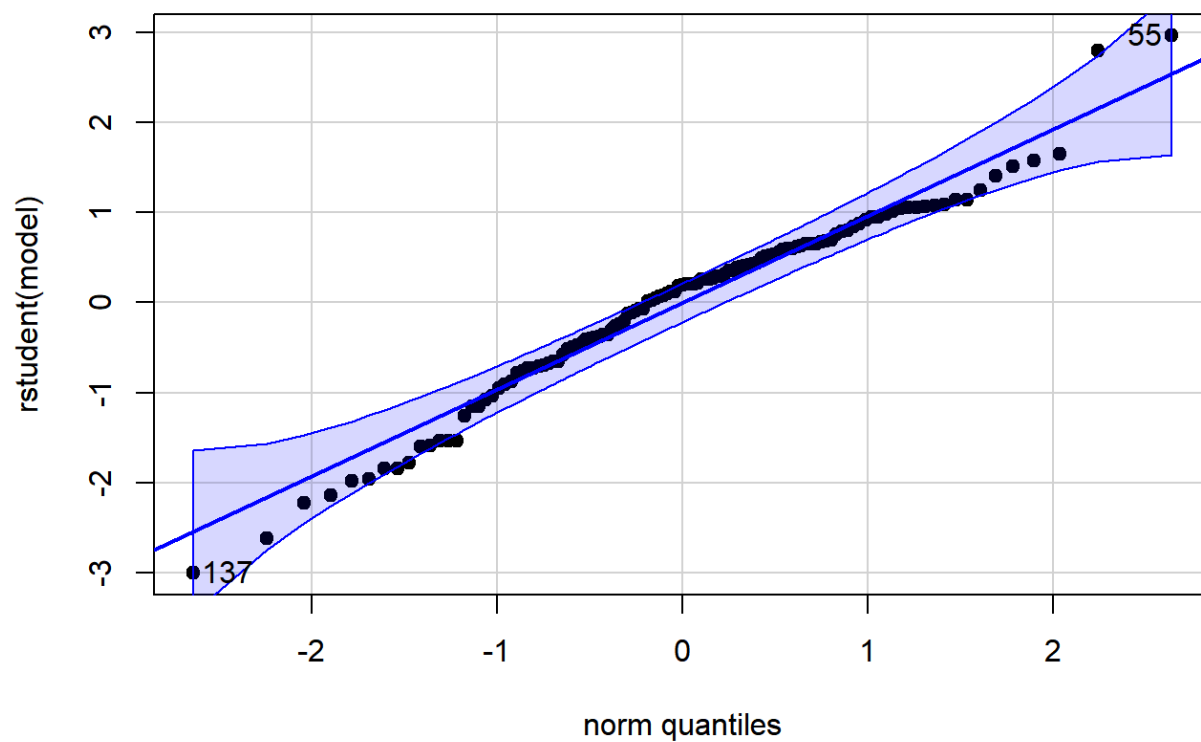
regression. Additionally, we can see that social support, life expectancy, positive affect and negative affect are in the positive direction from happiness, and only perceptions of corruption is in the negative direction.

6) ANCOVA

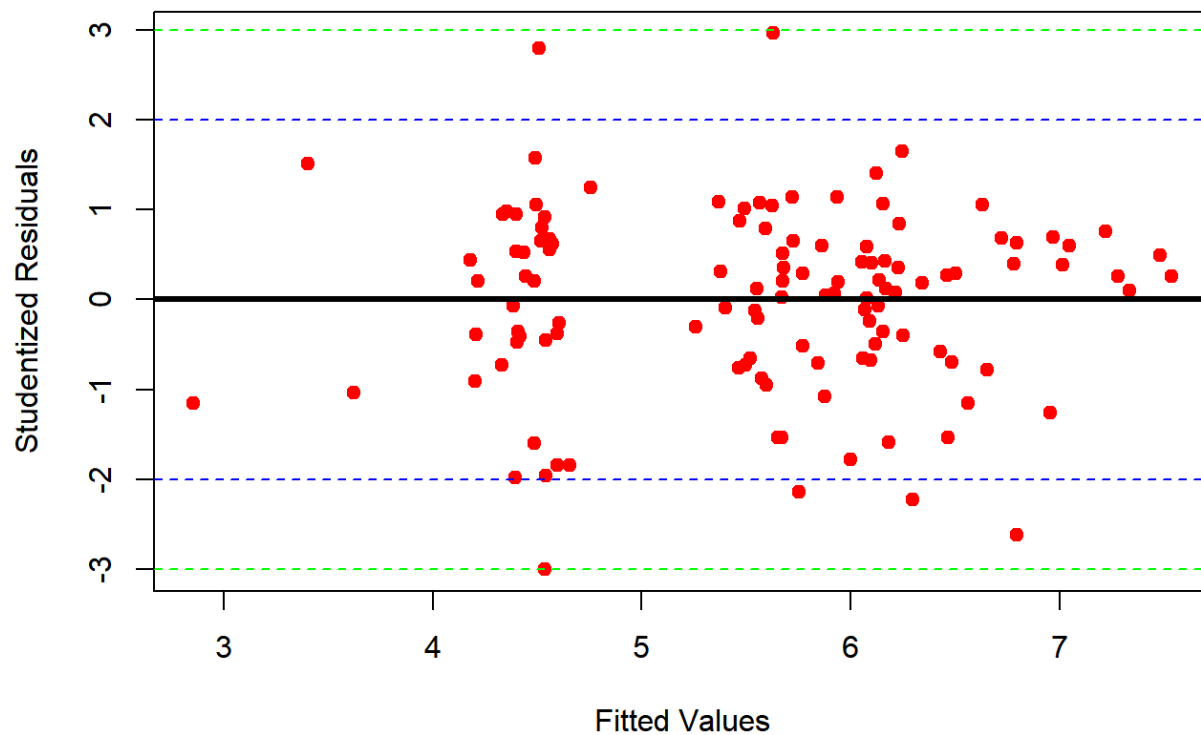
We attempt to run an ANCOVA test to see the effect that perception of corruption has on happiness level by world region.

```
## Anova Table (Type III tests)
##
## Response: Life.Ladder
##
##              Sum Sq  Df  F value    Pr(>F)
## (Intercept)    116.922   1 277.4037 < 2.2e-16 ***
## Lack.of.corruption      3.036   1   7.2030 0.0084134 **
## World.Region      14.351   6   5.6747 3.668e-05 ***
## Lack.of.corruption:World.Region  11.971   6   4.7336 0.0002541 ***
## Residuals      45.942 109
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

NQ Plot of Studentized Residuals, Residual Plots

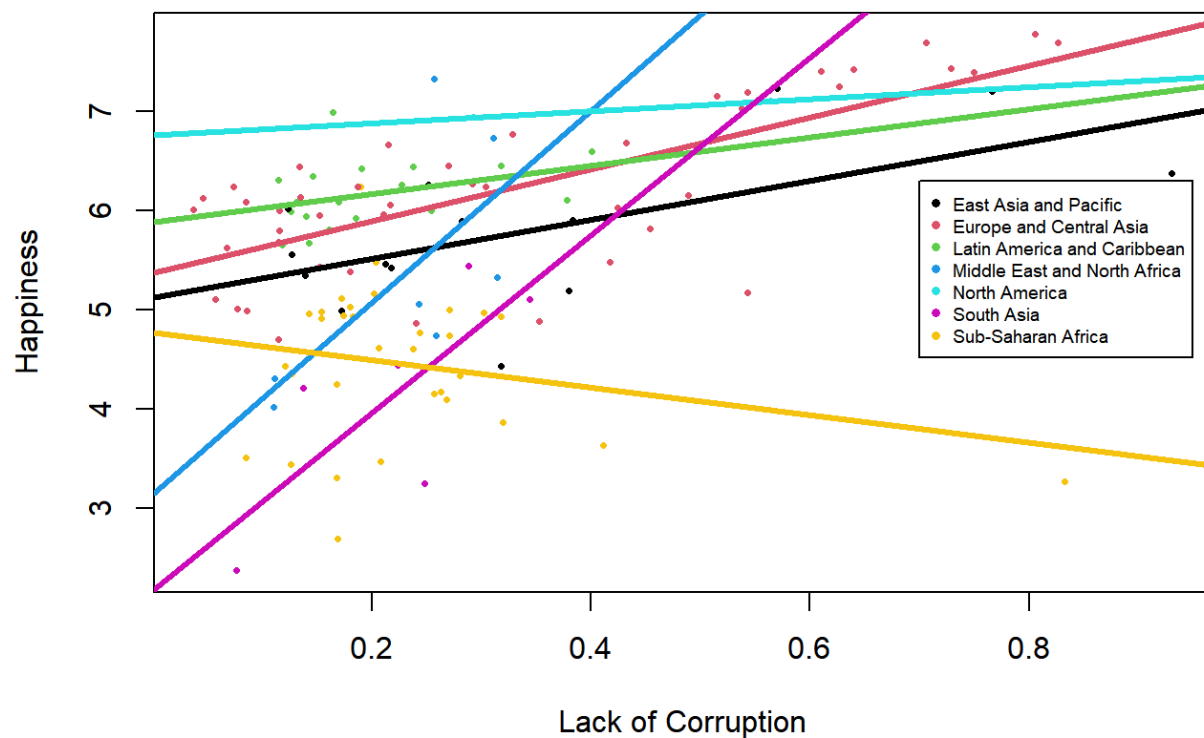


Fits vs. Studentized Residuals, Residual Plots



```
##                                     (Intercept)
##                                     5.1282078
##                                     Lack.of.corruption
##                                     1.9616362
##                                     World.RegionEurope and Central Asia
##                                     0.2427465
##                                     World.RegionLatin America and Caribbean
##                                     0.7623372
##                                     World.RegionMiddle East and North Africa
##                                     -1.9841935
##                                     World.RegionNorth America
##                                     1.6373974
##                                     World.RegionSouth Asia
##                                     -2.9556967
##                                     World.RegionSub-Saharan Africa
##                                     -0.3564967
##                                     Lack.of.corruption:World.RegionEurope and Central Asia
##                                     0.6575873
##                                     Lack.of.corruption:World.RegionLatin America and Caribbean
##                                     -0.5408955
##                                     Lack.of.corruption:World.RegionMiddle East and North Africa
##                                     7.7130680
##                                     Lack.of.corruption:World.RegionNorth America
##                                     -1.3527801
##                                     Lack.of.corruption:World.RegionSouth Asia
##                                     7.0041449
##                                     Lack.of.corruption:World.RegionSub-Saharan Africa
##                                     -3.3410064
```

Happiness vs Perception of Corruption



From the graph, we can see that in the Middle East and North Africa and in South Asia having a lower perception of corruption has a greater impact on happiness than in other countries. Furthermore, Sub-Saharan Africa is the only region where a higher perception of corruption is seemingly correlated to lower life satisfaction/happiness ratings. Overall, we can see that Lack of corruption and world region are both extremely significant, as well as the interaction between the two. The fit of the model looks good, and is well distributed over the 0 line.

Conclusion and Summary

Our project aimed to analyze the variables taken from the World Happiness Report in comparison to ratings of life satisfaction based upon the Cantril Life Ladder. Overall, the happiness distribution is quite normal with an average of 5.573. However, it appears that North Americans and Europeans/Central Asians are by far the most satisfied with their lives (matching with the happiest in Finland) and South Asians/Sub-Saharan Africans are the least satisfied (matching with the least happy in Afghanistan). To dive deeper into why, we looked at the correlations between the ratings and factors in daily life. Interestingly, the strongest predictors of life satisfaction/happiness were Social support, Healthy life expectancy at birth, Perceptions of corruption, Positive affect, and Negative affect. Confirmation that social support was a significant predictor of life satisfaction was foreboding especially as precursor data to the pandemic and current findings on increased loneliness in recent generations. Furthermore, Generosity was the only predictor that showed insignificant correlation with another variable, demonstrating happiness or circumstance does not have a huge affect on character. However, it does have a slight negative correlation with life expectancy and GDP showing richer people are less likely to give. Lastly, it seems like perception of corruption has a different weight on happiness depending on your region of residence. Overall, happiness is determined on a subjective and individual basis; however, our study shows where you live and how you live can change your satisfaction. Thus, individuals and political leaders alike should take interest in improving access to social support, creating a good relationship with the people to reduce perceptions of corruption, and focus on the health of the population to achieve greater life satisfaction for a happier future.