

# Beyond GDP: Exploring Factors Behind Global Happiness

An Exploratory Data Analysis of  
the World Happiness Report (2018-2019)

Ana Gamito · Sept 2025  
AllWomen Data Analytics Bootcamp

# Research Questions

📈 How strong is the relationship between GDP and Happiness?

😊 Who are our "happy but poor" outliers?

😞 Who are our "rich but unhappy" outliers?

🔍 Beyond GDP, what other factors matter most?



# Data & Methodology



## Data Source

World Happiness Report (2018-2019), ~160 countries



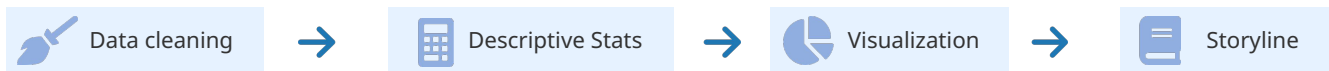
## Variables Analyzed

GDP per capita, Social support, Freedom to make life choices, Generosity, Perceptions of corruption, Happiness score

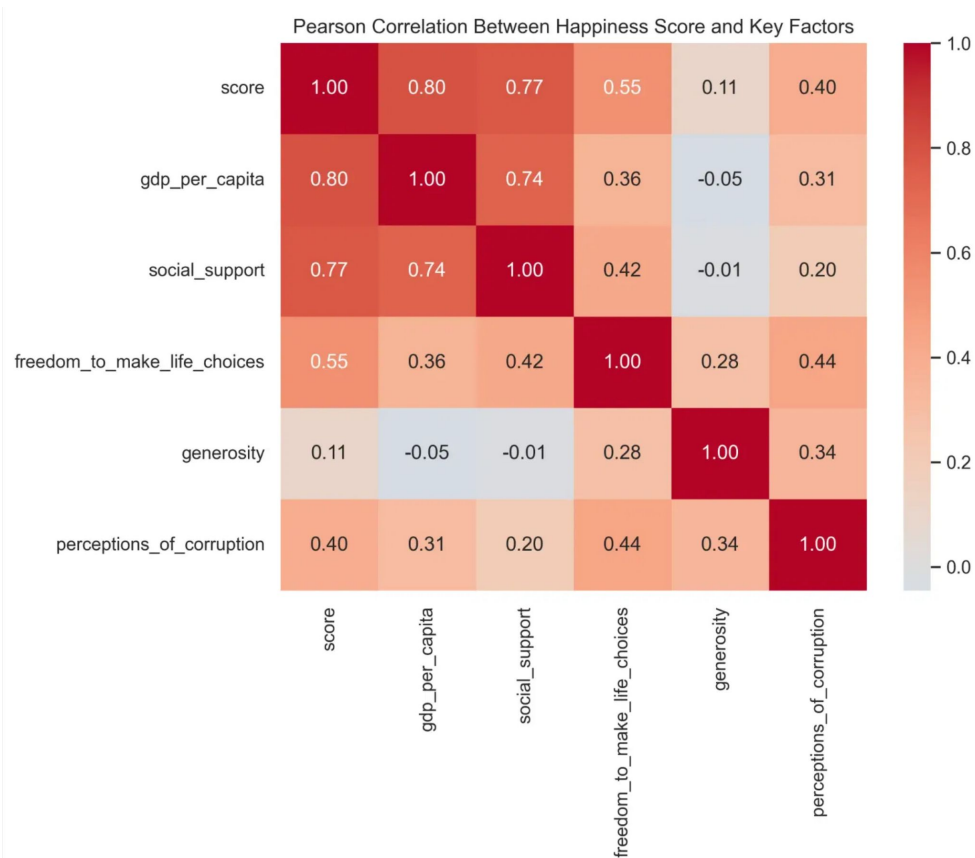


## Methodology

Exploratory Data Analysis (EDA) approach:

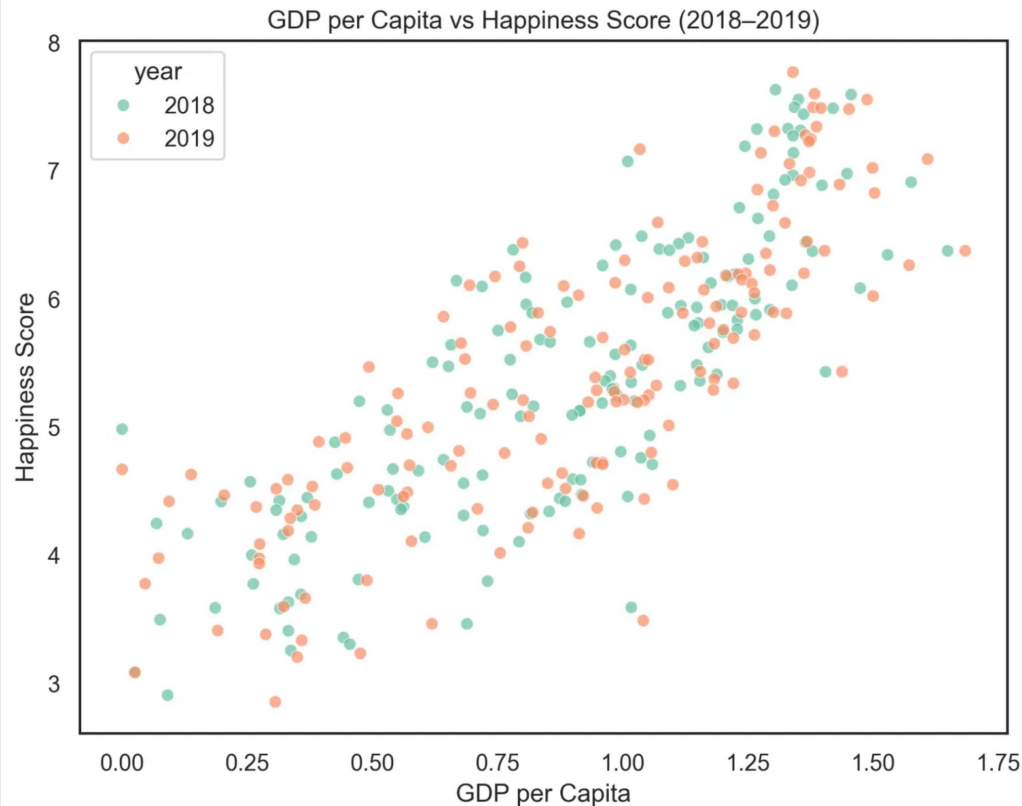


# Correlation Analysis



- ✓ **Strong positive correlations**  
Happiness score with GDP per capita (0.80) and social support (0.77)
- ✓ **Moderate correlation**  
Happiness score with freedom to make life choices (0.55)
- ✓ **Weak correlation**  
Happiness score with perceptions of corruption (0.40)
- ✓ **Very weak correlation**  
Happiness score with generosity (0.11)

# GDP vs. Happiness: The Baseline



## Clear positive trend

Higher GDP per capita generally correlates with higher happiness scores

## Visible clustering

Countries group by economic development and happiness levels

## Notable outliers

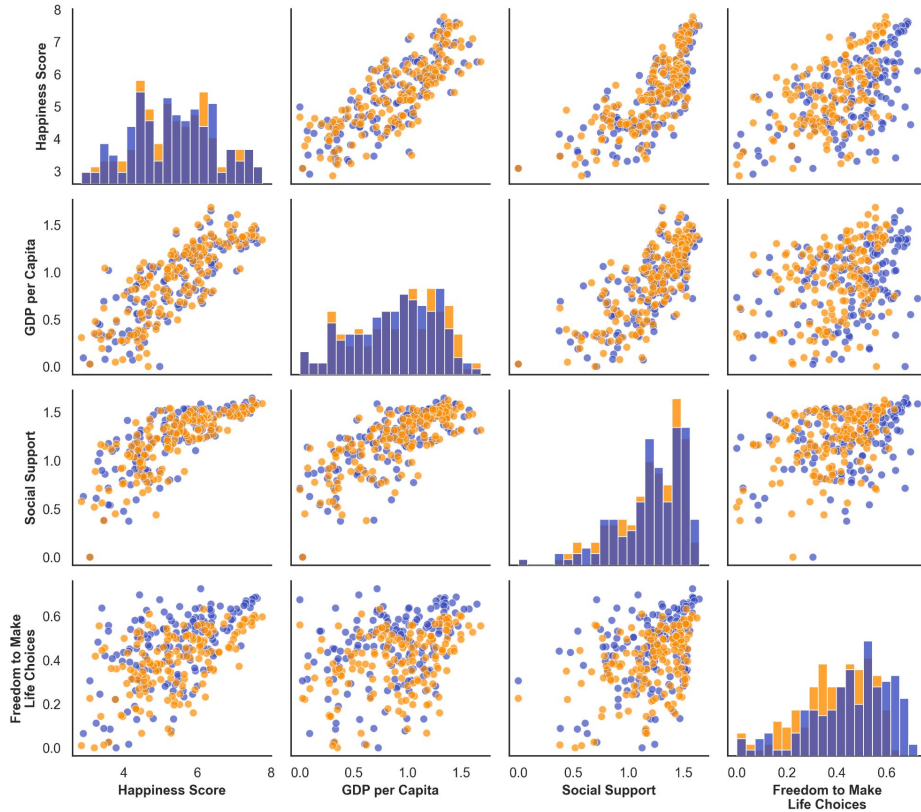
Some countries don't follow the general trend

## Consistent pattern

Similar relationship observed in both 2018 and 2019 data

Key Happiness Drivers: Pairwise Relationships (2018-2019)

Year  
 ● 2018  
 ● 2019



## Key Happiness Drivers: Pairwise Relationships (2018-2019)

### Strong positive relationships

Happiness Score with GDP per Capita and Social Support.

### Interconnected factors

GDP per Capita and Social Support are also positively correlated.

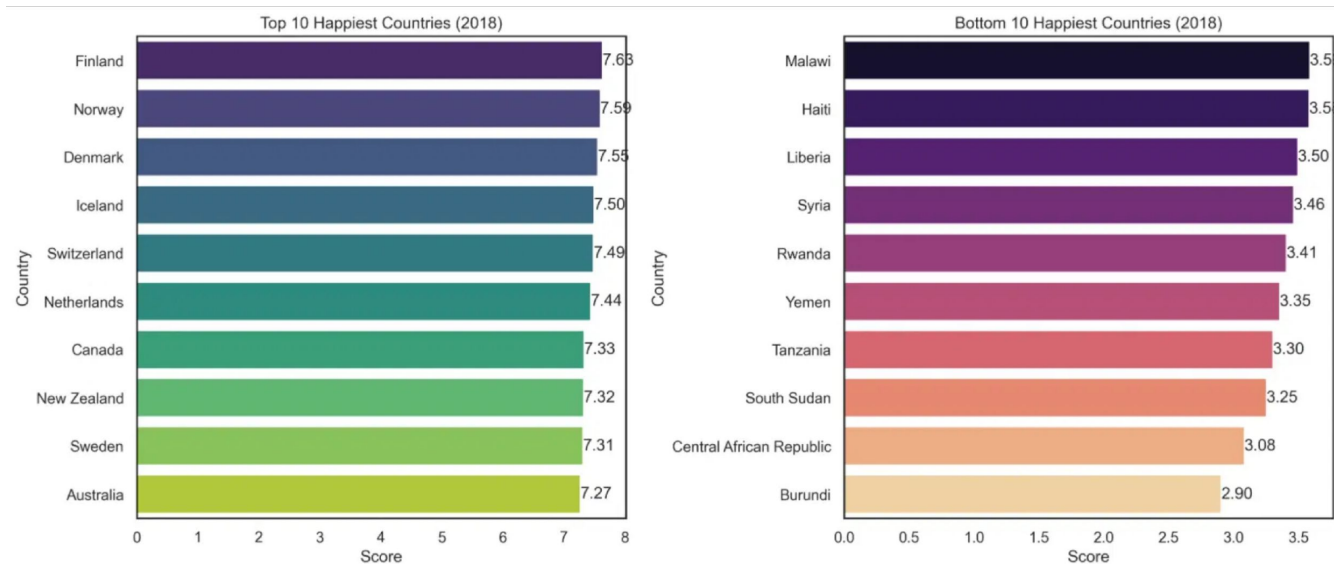
### Moderate positive relationship

Happiness Score with Freedom to Make Life Choices.

### Consistent patterns

Relationships remain stable across 2018 (blue) and 2019 (orange).

# Happiest vs. Unhappiest Countries (2018)



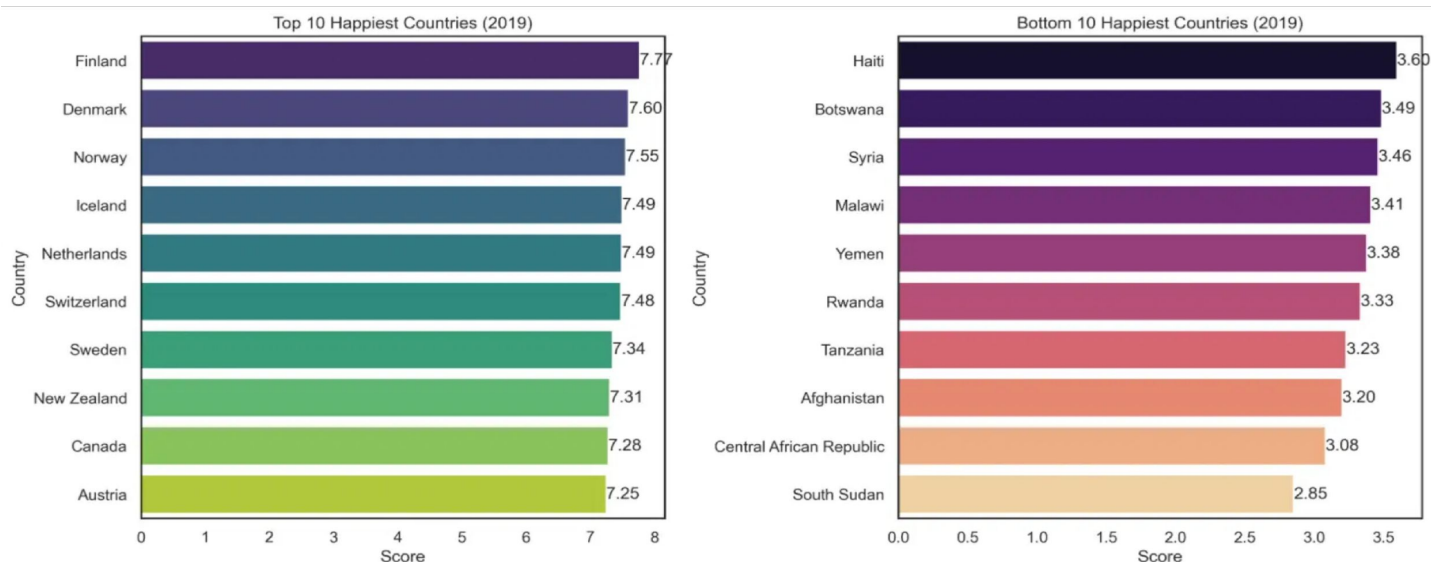
🏆 **Nordic dominance** Finland (7.63), Norway (7.59), and Denmark (7.55) lead the rankings

⚠️ **Conflict correlation** Countries affected by war and instability rank lowest

⬆️ **Significant gap** Finland (7.63) scores over 2.5x higher than Burundi (2.90)

🌐 **Regional patterns** Western Europe and North America dominate top rankings

# Happiest vs. Unhappiest Countries (2019)



🏆 **Finland strengthens lead** Score increased from 7.63 to 7.77

↕ **Ranking shifts** Denmark (2nd) and Norway (3rd) swapped positions from 2018

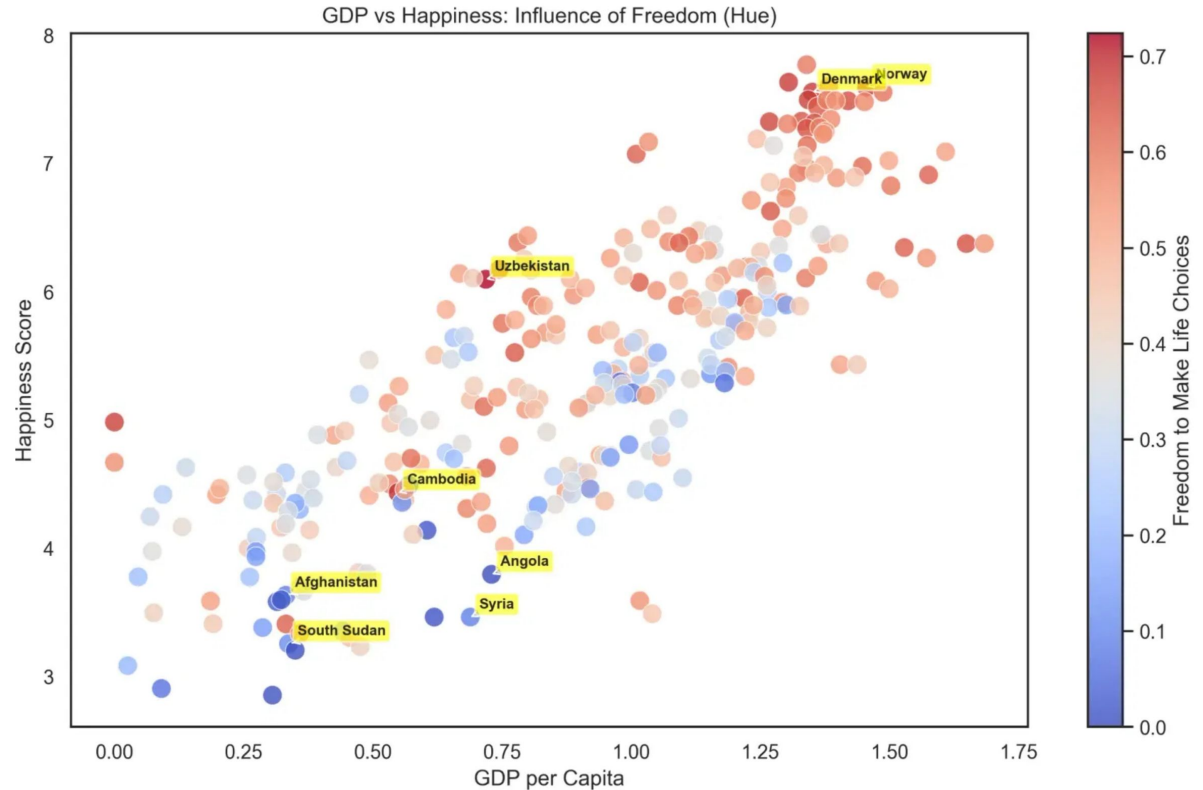
⚠ **Bottom changes** South Sudan remains lowest (2.85), but some countries like Botswana entered the bottom 10

🔄 **Remarkable stability** 7 of top 10 and 6 of bottom 10 countries remained the same



# Freedom: The Happiness Amplifier

- 🔒 **Freedom matters**  
Higher freedom = higher happiness
- ⚠️ **Freedom deficit**  
Low freedom = low happiness
- ★ **Nordic excellence**  
High freedom + high happiness
- 📈 **Amplifier effect**  
Freedom enhances happiness



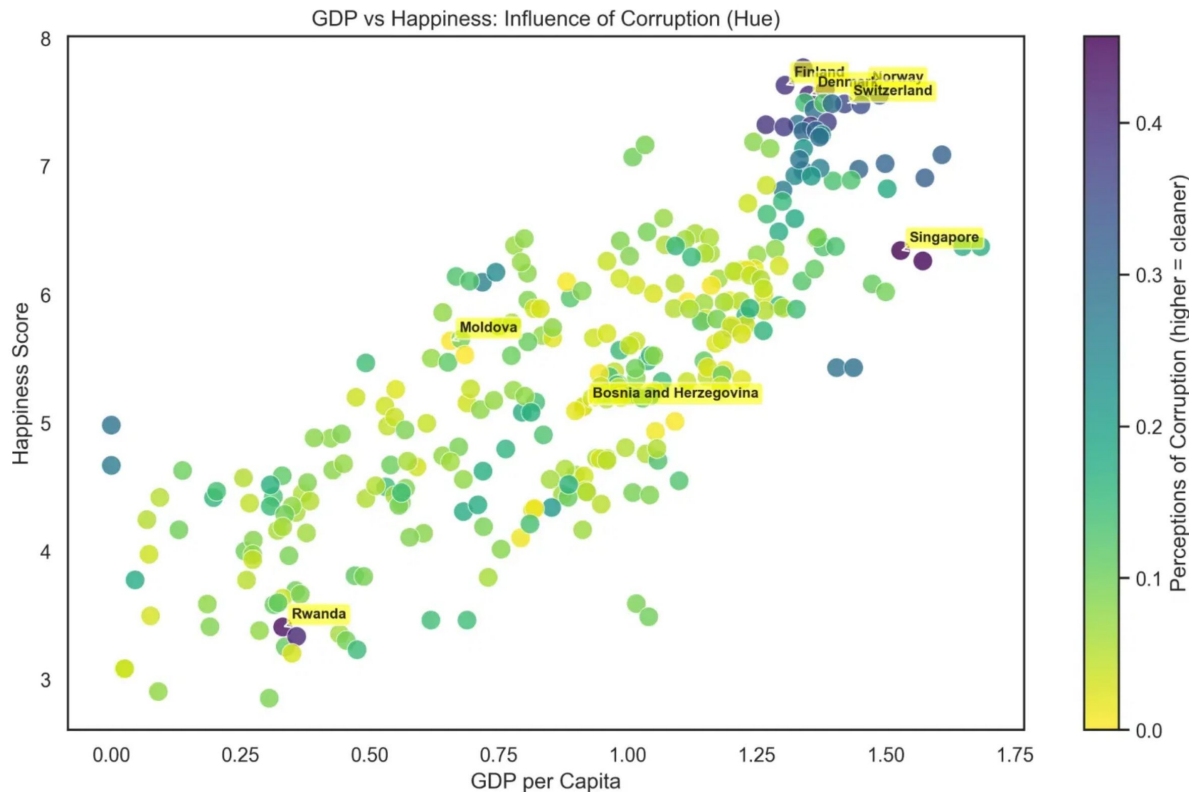
# Trust & Corruption: Impact on Happiness

✓ **Low corruption**  
Lighter colors = higher happiness

⚠ **Outliers**  
Rwanda shows high corruption  
varying happiness

★ **Nordic pattern**  
Low corruption + high

⚖ **Trust matters**  
Institutional trust boosts  
happiness



# Key Findings

## GDP-Happiness Relationship

**Strong correlation (0.80)** between GDP and happiness, but not sufficient alone to explain happiness levels

## Rich but Unhappy Outliers

Some wealthy countries have **lower happiness than expected**, often correlating with lower freedom or higher corruption

## Happy but Poor Outliers

Some countries achieve **higher happiness despite modest GDP**, suggesting other factors at play

## Beyond GDP

**Social support (0.77), freedom (0.55), and low corruption (0.40)** are significant factors beyond economic wealth

# Conclusion & Implications



Money matters, but it's not the only factor in happiness



Institutions, freedom, and trust significantly shape happiness inequality



Outliers provide valuable insights beyond simple correlations



Policy implications: Focus on social fabric and institutions, not just economic growth

***"Understanding outliers moves us beyond numbers to the human story of what truly creates happiness across diverse societies."***

# Thank you

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