## GDP per capita is a poor predictor of national well-being

**Adrien Fabre** (CNRS, CIRED)

January 2024

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# Introduction

Which country is the happiest?

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What do we mean by "happy"?

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What do we mean by "happy"? Subjective well-being.

## Literature

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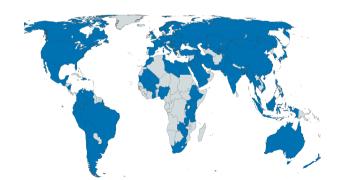
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- The relationship heavily depends on the well-being indicator chosen.
- For some indicators, the happiest country is in Africa or Latin America.
- Another simple variable, the country's (macro) region, is a better predictor of national well-being.

# Design

World Values Survey (WVS): representative surveys on 440,000 respondents over 108 countries.



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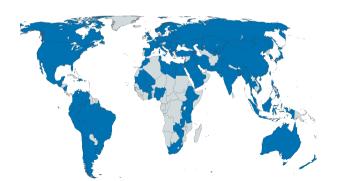


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Happiness: "Taking all things together, would you say you are:" *Very happy; Quite happy; Not very happy; Not at all happy;* PNR

Satisfaction: "All things considered, how satisfied are you with your life as a whole these days?"

1-Completely dissatisfied – 10-Completeley satisfied; PNR



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Satisfied: share answering 6 to 10 at satisfaction

Happy-Satisfied: average of Happy and Satisfied

This is the variable used by Inglehart & Klingemann (2000)

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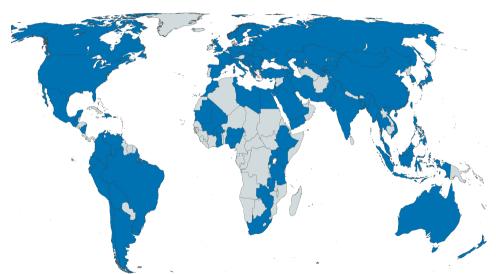
We manually impute missing income data using IMF data.

For robustness, we also run our analyses without this imputation (excluding countries with missing GDP data).

## National well-being and income

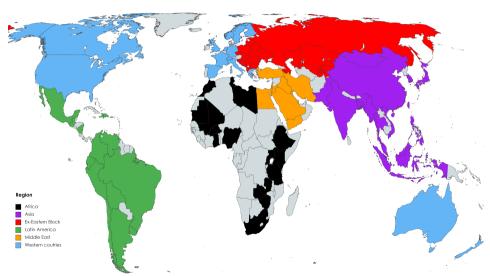
## **Graphical evidence**

Caption



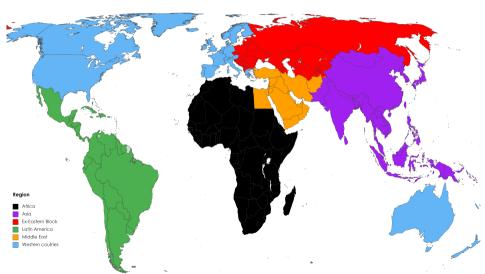
## **Graphical evidence**





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Happiness	variable

Very Happy

Very Unhappy

Satisfaction (mean)

Happiness (mean)

Happy + Satisfied

Number of obs.

V. Happy – V. Unhappy

Happy

Satisfied

Mean

Max

Share of the variance explained by GDP pc

k = 5

**PPP** 

0.01

0.13

0.07

0.2

0.14

0.06

0.19

0.02

0.1

0.2

304

sextile

PPP

0.04

0.14

0.07

0.19

0.13

0.07

0.19

0.05

0.11

0.19

304

Income cluster

k = 7

**PPP** 

0.02

0.13

0.07

0.21

0.15

0.06

0.2

0.03

0.11

0.21

304

k = 7

nominal

0.04

0.15

0.1

0.24

0.18

0.08

0.23

0.05

0.13

0.24

304

Mean

0.02

0.13

0.07

0.21

0.15

0.06

0.2

0.03

0.11

0.21

Max

0.04

0.15

0.1

0.24

0.18

0.08

0.23

0.05

0.13

0.24

12 / 20

k = 6

PPP

0.01

0.12

0.07

0.22

0.16

0.05

0.2

0.02

0.1

0.22

304

log GDP p.c.

nominal

0

0.12

0.06

0.23

0.16

0.04

0.21

0.01

0.1

0.23

304

PPP

0

0.1

0.05

0.19

0.14

0.03

0.17

0

0.09

0.19

Very Happy

Very Unhappy

Satisfaction (mean)

Happiness (mean)

Happy + Satisfied

Number of obs.

V. Happy – V. Unhappy

Happy

Satisfied

Mean

Max

### All waves Pop. weight

0.05

0.23

0.06

0.23

0.16

0.11

0.28

0.06

0.15

0.28

304

Share of the variance explained by GDP pc

3

0.07

0.22

0.15

0.23

0.18

0.13

0.25

0.08

0.16

0.25

56

1 & 2

0.24

0.22

0.22

0.18

0.17

0.18

0.21

0.15

0.2

0.24

26

Only selected waves

5

0.07

0.23

0.18

0.29

0.21

0.16

0.28

0.09

0.19

0.29

58

6

0.2

0.21

0.12

0.22

0.19

0.2

0.24

0.2

0.2

0.24

60

7

0.25

0.13

0.18

0.16

0.13

0.15

0.17

0.21

0.17

0.25

64

Mean

0.14

0.21

0.15

0.24

0.2

0.16

0.25

0.14

0.19

0.25

Max

0.25

0.23

0.22

0.36

0.33

0.2

0.32

0.21

0.24

0.36

13 / 20

4

0.15

0.23

0.16

0.36

0.33

0.2

0.32

0.16

0.24

0.36

# Happiness variable

Very Happy

Very Unhappy

Satisfaction (mean)

Happiness (mean)

Happy + Satisfied

Number of obs.

V. Happy – V. Unhappy

Happy

Satisfied

Mean

Max

log GDP p.c. PPP

0

0.27

0.19

0.36

0.27

0.1

0.33

0.02

0.19

0.36

304

nominal

0.01

0.33

0.25

0.42

0.32

0.14

0.4

0.03

0.24

0.42

304

Share of the variance explained by GDP pc

k = 5

**PPP** 

0.03

0.34

0.27

0.37

0.27

0.16

0.36

0.06

0.23

0.37

304

sextile

PPP

0.13

0.36

0.27

0.35

0.26

0.21

0.36

0.14

0.26

0.36

304

Income cluster

k = 7

**PPP** 

0.07

0.34

0.26

0.38

0.28

0.17

0.37

0.09

0.24

0.38

304

k = 7

nominal

0.12

0.39

0.38

0.44

0.34

0.22

0.43

0.14

0.31

0.44

304

Mean

0.06

0.34

0.27

0.39

0.29

0.16

0.38

0.08

0.24

0.39

Max

0.13

0.39

0.38

0.44

0.34

0.22

0.43

0.14

0.31

0.44

14 / 20

k = 6

PPP

0.04

0.33

0.27

0.39

0.29

0.15

0.37

0.06

0.24

0.39

Very Happy

Very Unhappy

Satisfaction (mean)

Happiness (mean)

Happy + Satisfied

Number of obs.

V. Happy – V. Unhappy

Happy

Satisfied

Mean

Max

# All waves

Pop.

weight

0.16

0.53

0.2

0.54

0.34

0.31

0.54

0.2

0.35

0.54

304

Share of the variance explained by GDP pc

3

0.09

0.33

0.27

0.28

0.23

0.18

0.32

0.11

0.23

0.33

56

1 & 2

0.29

0.33

0.26

0.25

0.23

0.24

0.27

0.2

0.26

0.33

26

Only selected waves

5

0.13

0.36

0.33

0.4

0.31

0.25

0.39

0.16

0.29

0.4

58

6

0.48

0.51

0.46

0.46

0.4

0.47

0.48

0.47

0.47

0.51

60

7

0.51

0.47

0.43

0.32

0.24

0.4

0.36

0.45

0.4

0.51

64

Mean

0.28

0.44

0.33

0.4

0.32

0.32

0.42

0.28

0.35

0.44

Max

0.51

0.53

0.46

0.58

0.5

0.47

0.57

0.47

0.47

0.58

15 / 20

4

0.31

0.53

0.36

0.58

0.5

0.44

0.57

0.34

0.45

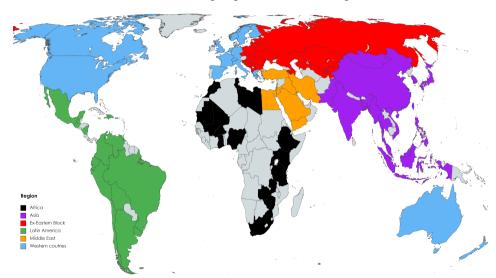
0.58

## What are the happiest countries?

# Region vs. GDP per capita as predictor of well-being

### **Region grouping**

WVS countries grouped into six world regions.



Region is a better predictor of national well-being than income

## Conclusion