2年です

住めば都という言葉がありますが

この夏・・・

＊oecd.statより2016年度better life indexのデータから（４０カ国）どの国が住みやすいのかを調べました。

～indicater（２４）～

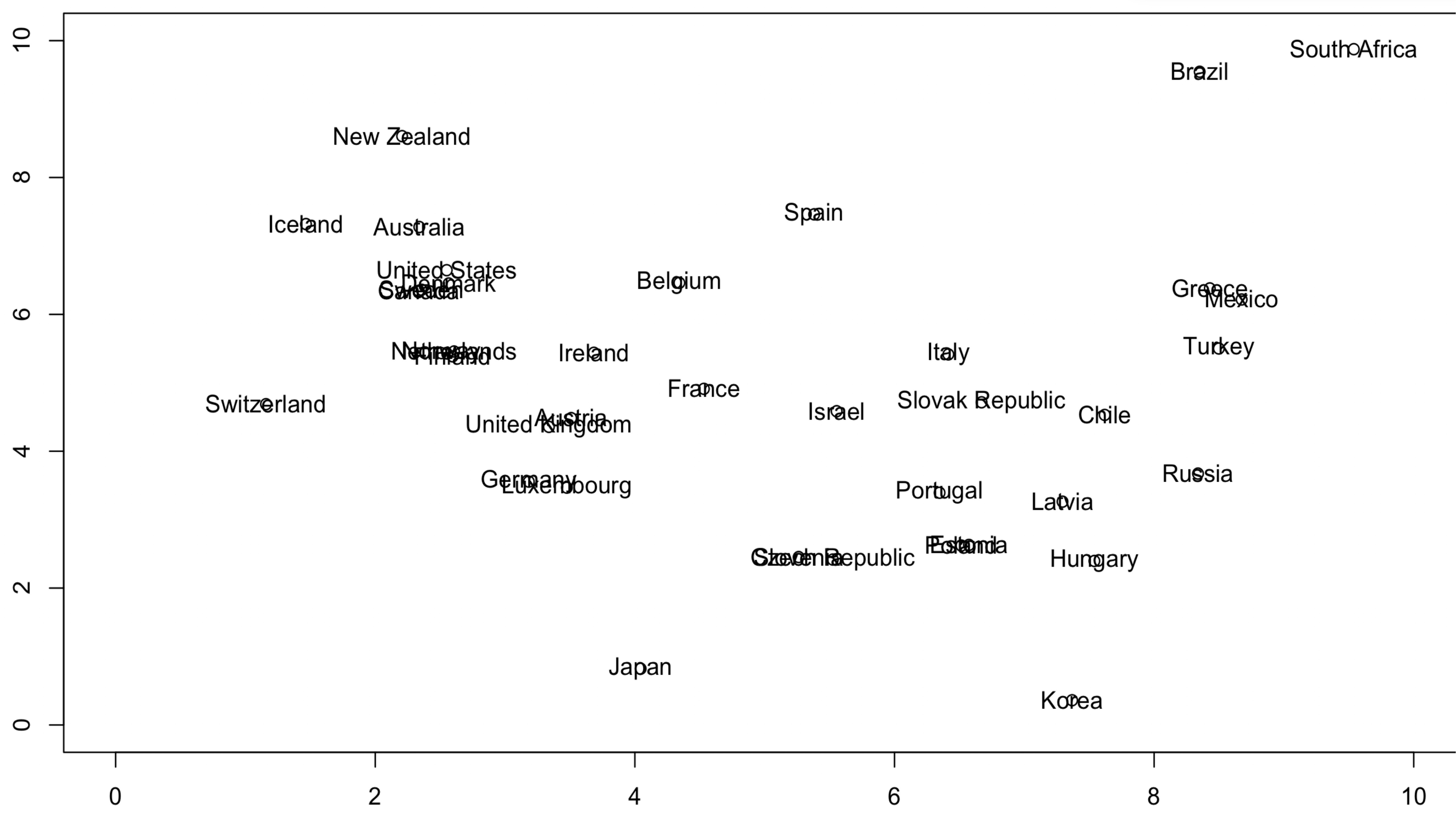
- dowellings without basic facilities
- housing expenditure
- rooms per person
- houseold net abjusted disposable income
- household net financial wealth
- labour market insecurity
- employment rate
- long-term unemployment rate
- personal earnings

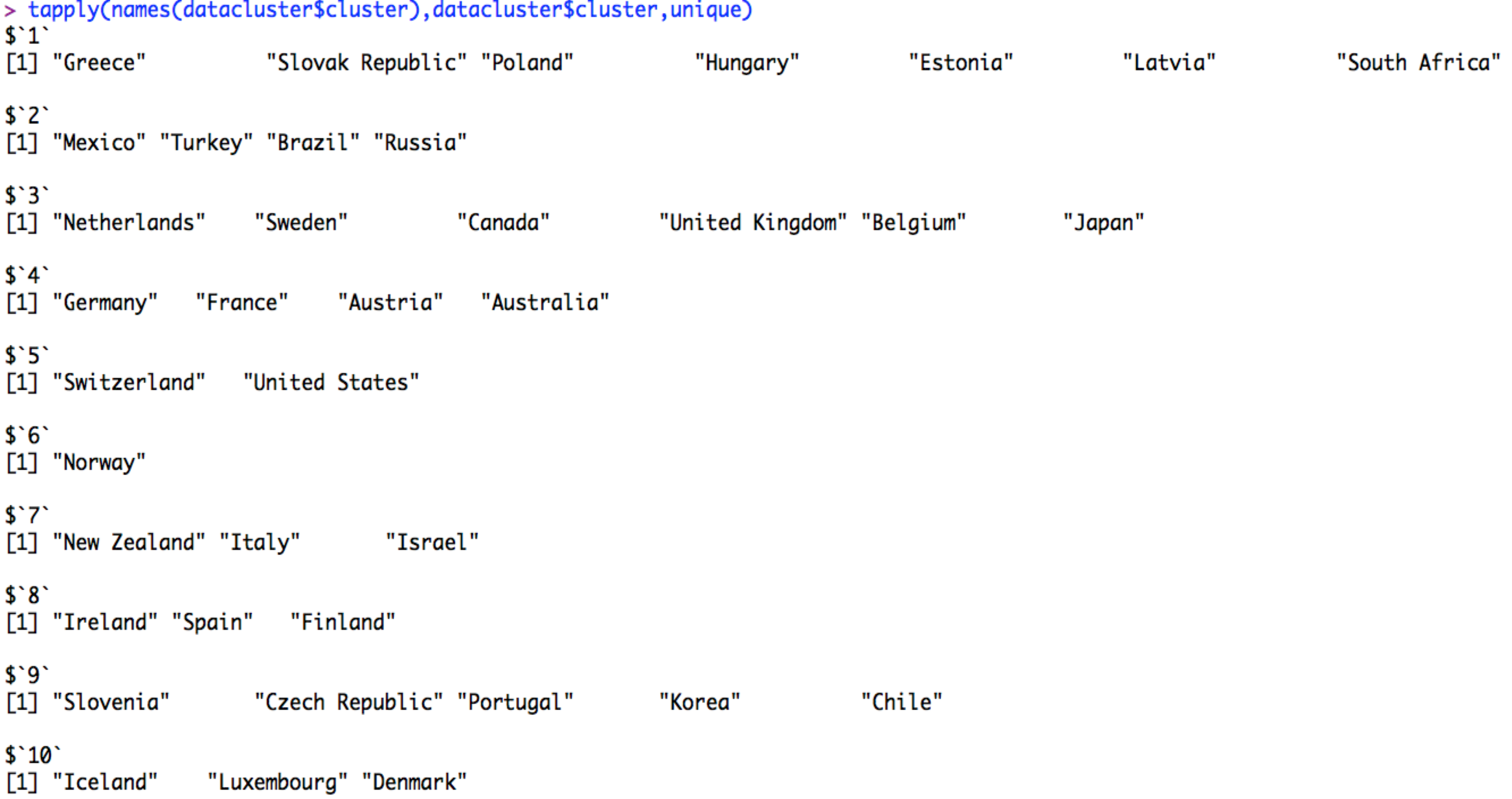
- self reported health
- life satisfaction
- homicide rate
- water quallity
- stakeholder engagement for developimg regulations
- voter turmout
- life expectancy

- quality of support network
- educational attainment
- Student skills
- years in education
- air pollution
- employees working very long hours
- time devoted to leisure and personal care
- feeling safe walking alone atanight

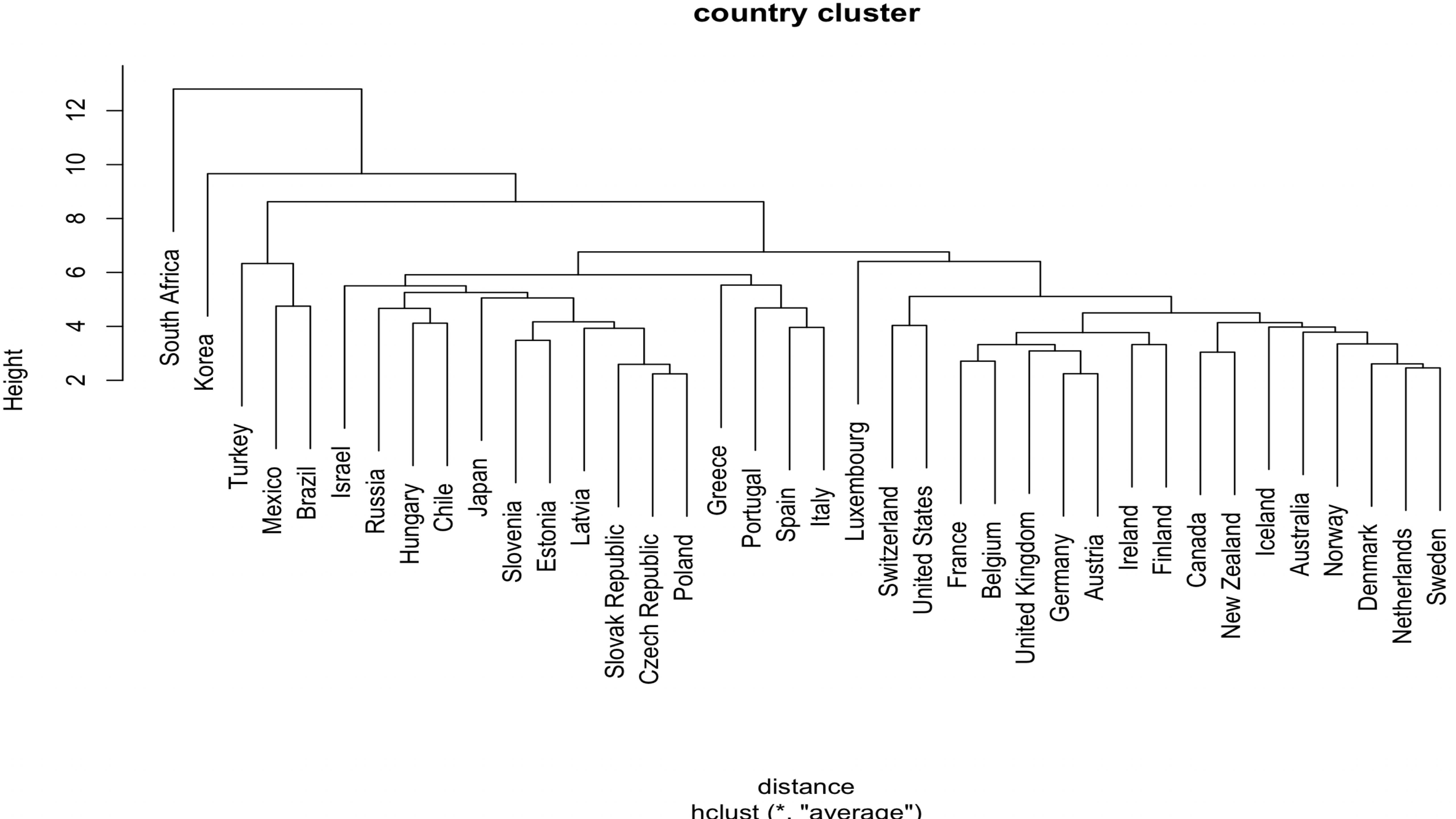
スケーリングしてソートした結果（上位5位）

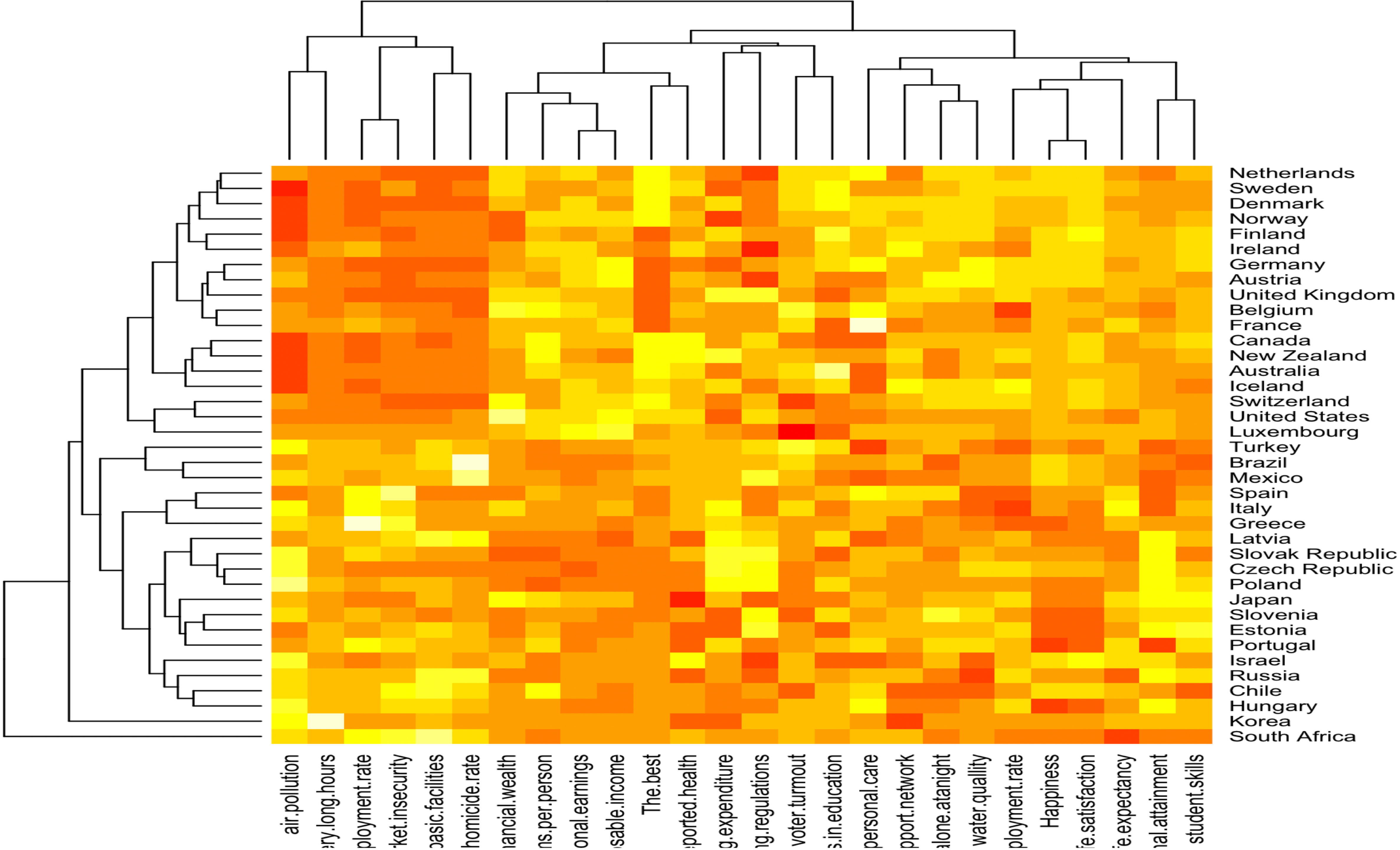
1 Switzerland
2 Denmark
3 Australia
4 United States
5 Canada


South Africa
Brazil
New Zealand
Iceland
Australia
Spain
United States
Denmark
Sweden
Canada
Belgium
Greece
Mexico
Norway
Netherlands
Finland
Ireland
Italy
Turkey
France
Switzerland
Slovak Republic
Israel
Chile
Austria
United Kingdom
Russia
Germany
Luxembourg
Portugal
Latvia
Poland
Estonia
Czech Republic
Slovenia
Hungary
Japan
Korea
0
2
4
6
8
10
0
2
4
6
8
10

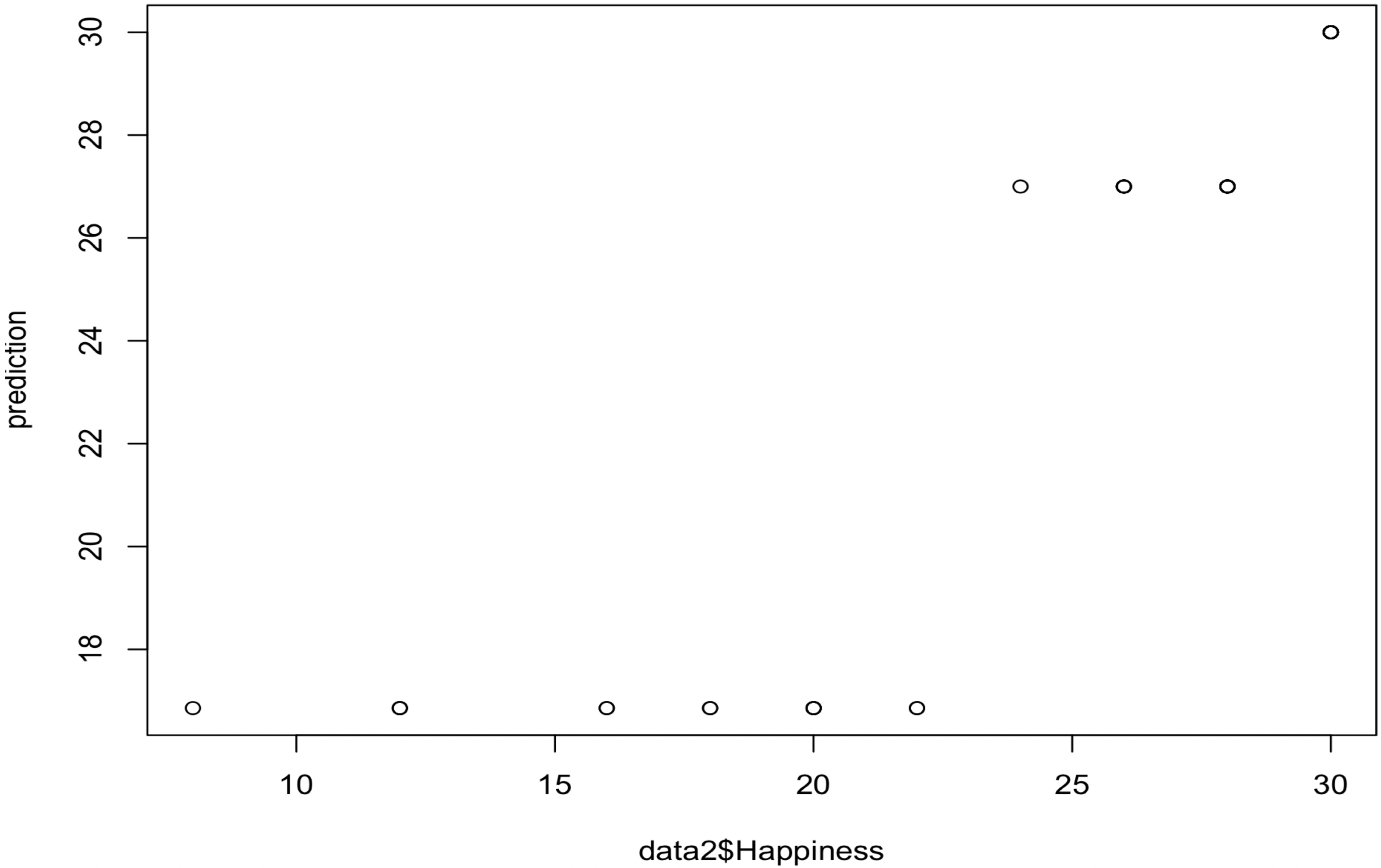


```
> tapply(names(datacluster$cluster),datacluster$cluster,unique)
$`1`
[1] "Greece"          "Slovak Republic" "Poland"          "Hungary"         "Estonia"         "Latvia"          "South Africa"

$`2`
[1] "Mexico" "Turkey" "Brazil" "Russia"

$`3`
[1] "Netherlands"    "Sweden"         "Canada"         "United Kingdom" "Belgium"        "Japan"

$`4`
[1] "Germany"   "France"    "Austria"   "Australia"

$`5`
[1] "Switzerland"   "United States"

$`6`
[1] "Norway"

$`7`
[1] "New Zealand" "Italy"       "Israel"

$`8`
[1] "Ireland" "Spain"   "Finland"

$`9`
[1] "Slovenia"       "Czech Republic" "Portugal"       "Korea"          "Chile"

$`10`
[1] "Iceland"    "Luxembourg" "Denmark"
```


country cluster
Height
2
4
6
8
10
12
South Africa
Korea
Turkey
Mexico
Brazil
Israel
Russia
Hungary
Chile
Japan
Slovenia
Estonia
Latvia
Slovak Republic
Czech Republic
Poland
Greece
Portugal
Spain
Italy
Luxembourg
Switzerland
United States
France
Belgium
United Kingdom
Germany
Austria
Ireland
Finland
Canada
New Zealand
Iceland
Australia
Norway
Denmark
Netherlands
Sweden
distance
hclust (*, "average")


Netherlands
Sweden
Denmark
Norway
Finland
Ireland
Germany
Austria
United Kingdom
Belgium
France
Canada
New Zealand
Australia
Iceland
Switzerland
United States
Luxembourg
Turkey
Brazil
Mexico
Spain
Italy
Greece
Latvia
Slovak Republic
Czech Republic
Poland
Japan
Slovenia
Estonia
Portugal
Israel
Russia
Chile
Hungary
Korea
South Africa
air.pollution
ery.long.hours
ployment.rate
rket.insecurity
basic.facilities
homicide.rate
ancial.wealth
ns.per.person
onal.earnings
sable.income
The.best
eported.health
g.expenditure
ng.regulations
voter.turnout
s.in.education
personal.care
pport.network
alone.atanight
water.quality
ployment.rate
Happiness
fe.satisfaction
fe.expectancy
nal.attainment
student.skills

幸福度との相関



- 0.7217698(魅力度との相関)
- 0.4226528(GDPとの相関)
- 0.748023(日本人がよく行く旅行先との相関)

～感想～

・婚姻率や気候など他の条件を入れて調べるとまた変わってくるのかもしれいと思いました。

・都市に絞って分析するともっと面白い結果が出てくると思う

・かなり忘れていたのでRをもっと勉強して行きたいです