

Exploring subgroups at one sweep

A short introduction to a new perspective on subgroup screening

PSI 2018 – Amsterdam
Susanne Lippert and Bodo Kirsch

Subgroup Explorer

Target variable (Y-Axis)

satisfact

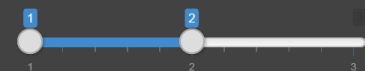
Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

no selection

Subgroup levels



Plot type

☐ linear ☒ logarithmic

Reference line



Y Range



Selected Subgroups

Filtered Subgroups

Show 6 entries

Search:

SGID

number.of.subjects

satisfact

nfactors

smoker

graduat_f

1170

1170

551

6.9

2

Y

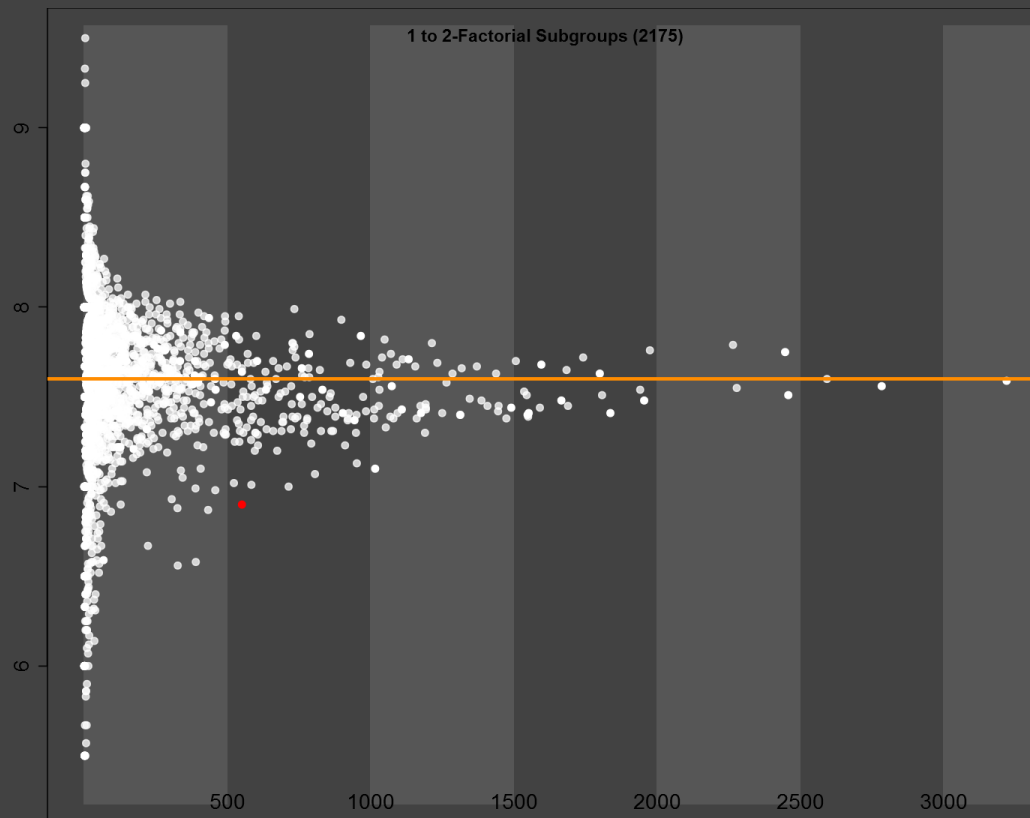
elementary school

Showing 1 to 1 of 1 entries

Previous

1

Next



Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number of subjects

Subgroup Filter

no selection

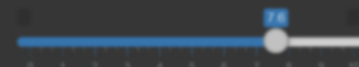
Subgroup levels



Plot type

☐ linear
 ☒ logarithmic

Reference line



Y Range



id	satisfaction	age	bmi	w_hours	todoctor	income	smoker	gender	employed
1359	10	>40	>30	NA	<6 visits	<1000	Y	female	non-working
2455	9	>40	<=30	<35h	<6 visits	<1000	N	female	regular half-time
200	8	30-40	>30	NA	<6 visits	NA	N	male	non-working
1280	8	>40	<=30	>45h	<6 visits	NA	N	male	regular full-time
2384	7	<30	<=30	NA	<6 visits	NA	N	female	non-working
2258	9	<30	<=30	<35h	<6 visits	NA	N	male	regular half-time
837	8	>40	<=30	>45h	<6 visits	>=3000	N	male	regular full-time
1343	9	<30	<=30	NA	<6 visits	<1000	N	male	part-time job
3129	8	>40	<=30	35-45h	<6 visits	1000- <2000	N	male	regular full-time

Selected Subgroups Filtered Subgroups

6

SMD

1170

1170

551

6.9

2 Y

elementary school

Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

no selection

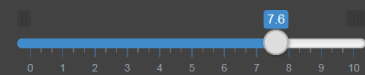
Subgroup levels



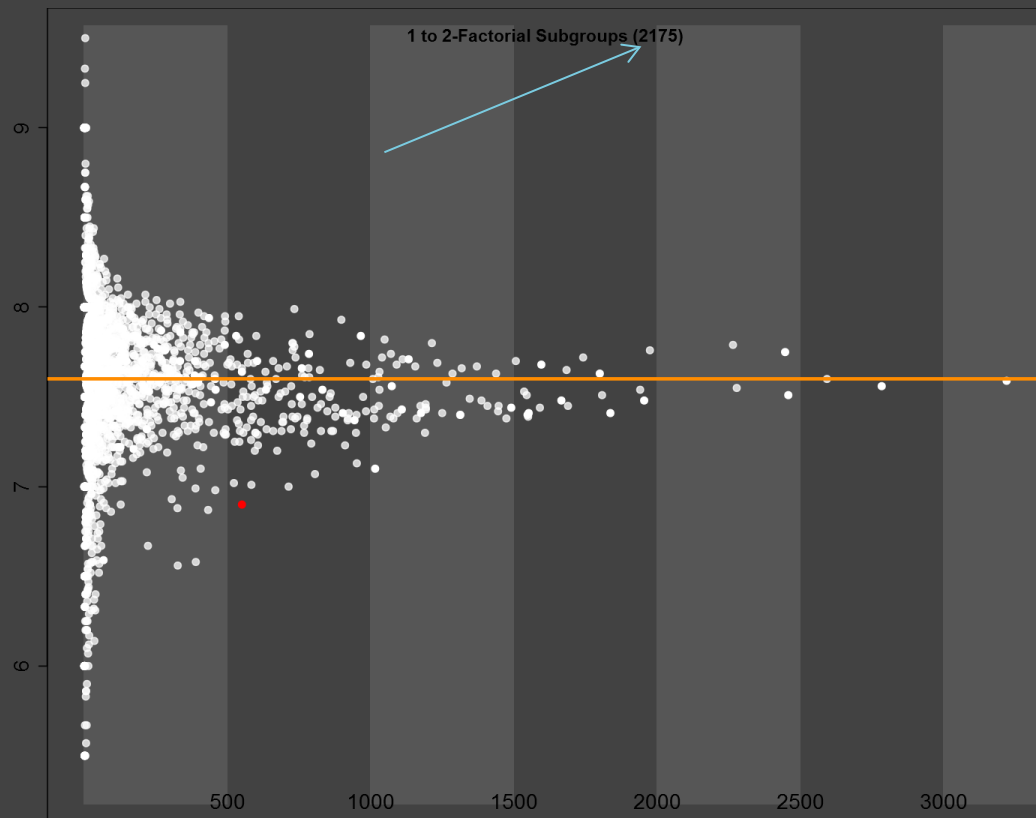
Plot type

☐ linear ☒ logarithmic

Reference line



Y Range



Selected Subgroups

Filtered Subgroups

Show 6 entries

Search:

SGID

number.of.subjects

satisfact

nfactors

smoker

graduat_f

1170

1170

551

6.9

2

Y

elementary school

Showing 1 to 1 of 1 entries

Previous

1

Next

Target variable (Y-Axis)
satisfact

Reference variable (X-Axis)
number.of.subjects

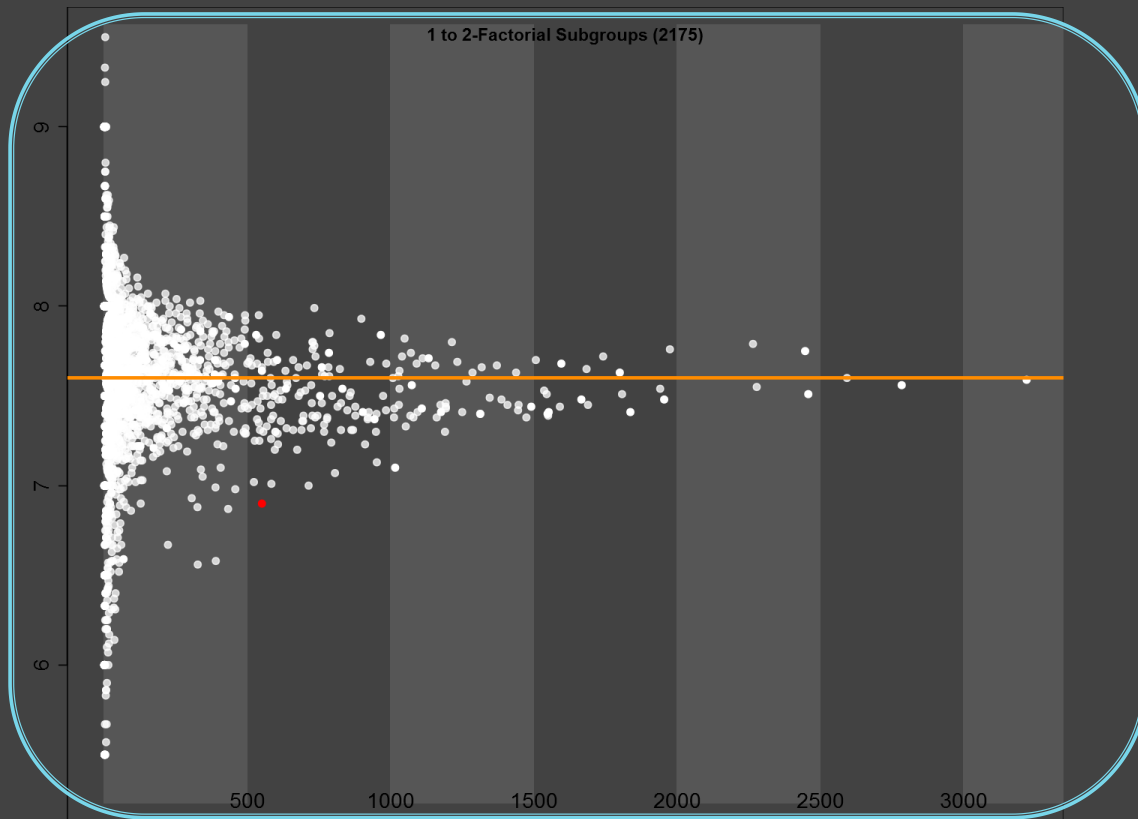
Subgroup Filter
no selection

Subgroup levels
1 2 3

Plot type
☒ linear ☐ logarithmic

Reference line
7.6

Y Range
5.3 9.5



Selected Subgroups

Filtered Subgroups

6 entries

	SGID	number.of.subjects	satisfact	nfactors	smoker	graduat_f
1170	1170	551	6.9	2	Y	elementary school

Showing 1 to 1 of 1 entries

Previous

1

Next

Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

employed

no selection

gender

employed

smoker

graduat

graduat_f

graduat_m

high_grad

Plot type

☐ linear

☒ logarithmic

Reference line

7.6

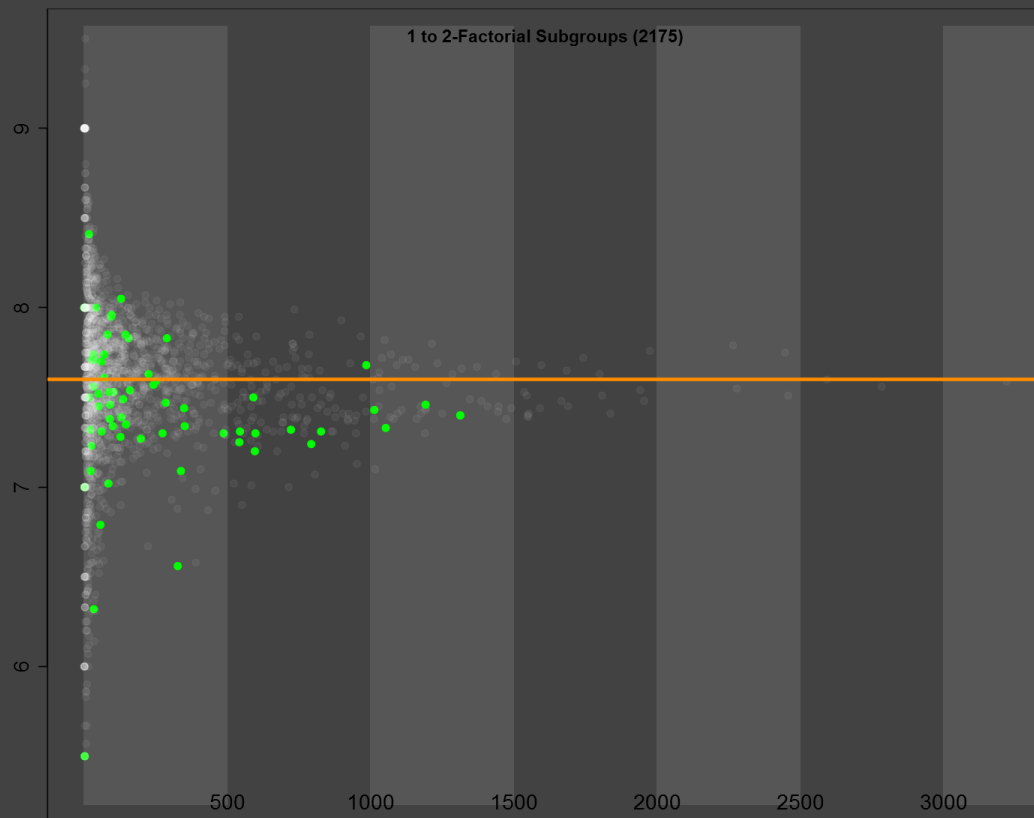
Y Range

5.3

9.5

Selected Subgroups

Filtered Subgroups



Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

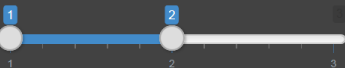
Subgroup Filter

employed

Choose a value

non-working

Subgroup levels



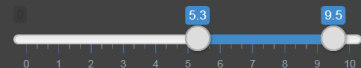
Plot type

☐ linear ☒ logarithmic

Reference line

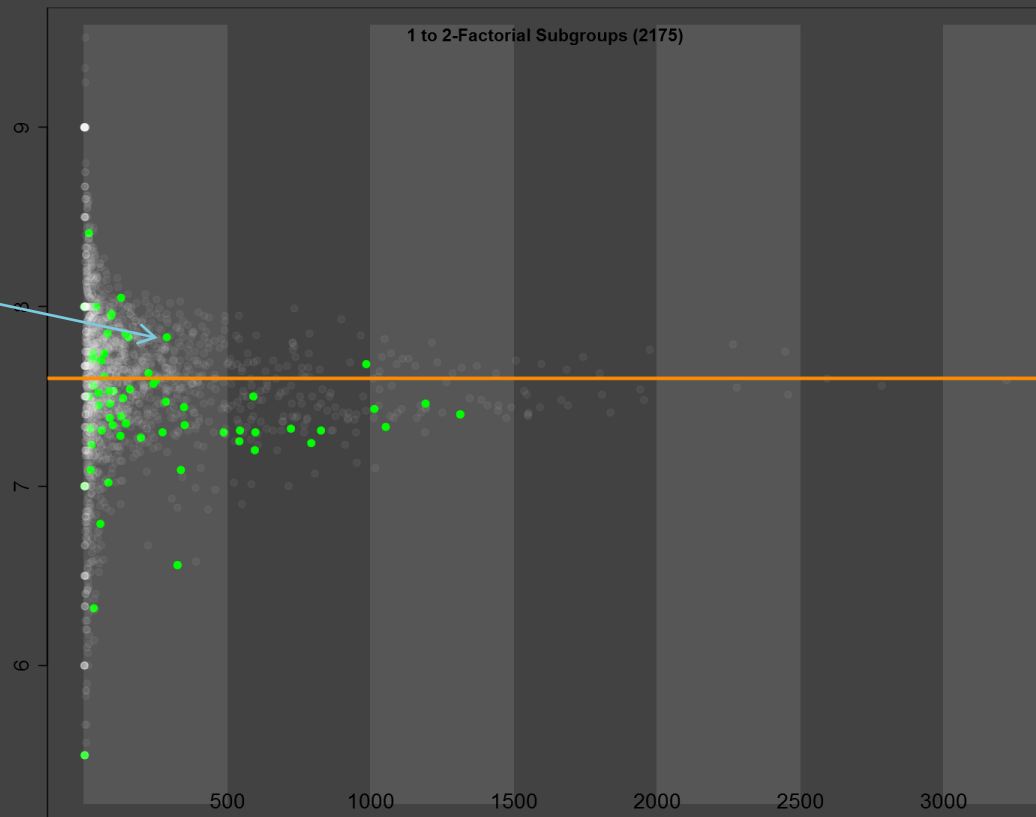


Y Range



Selected Subgroups

Filtered Subgroups



Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

employed

Choose a value

non-working

Subgroup levels



Plot type

☐ linear ☒ logarithmic

Reference line

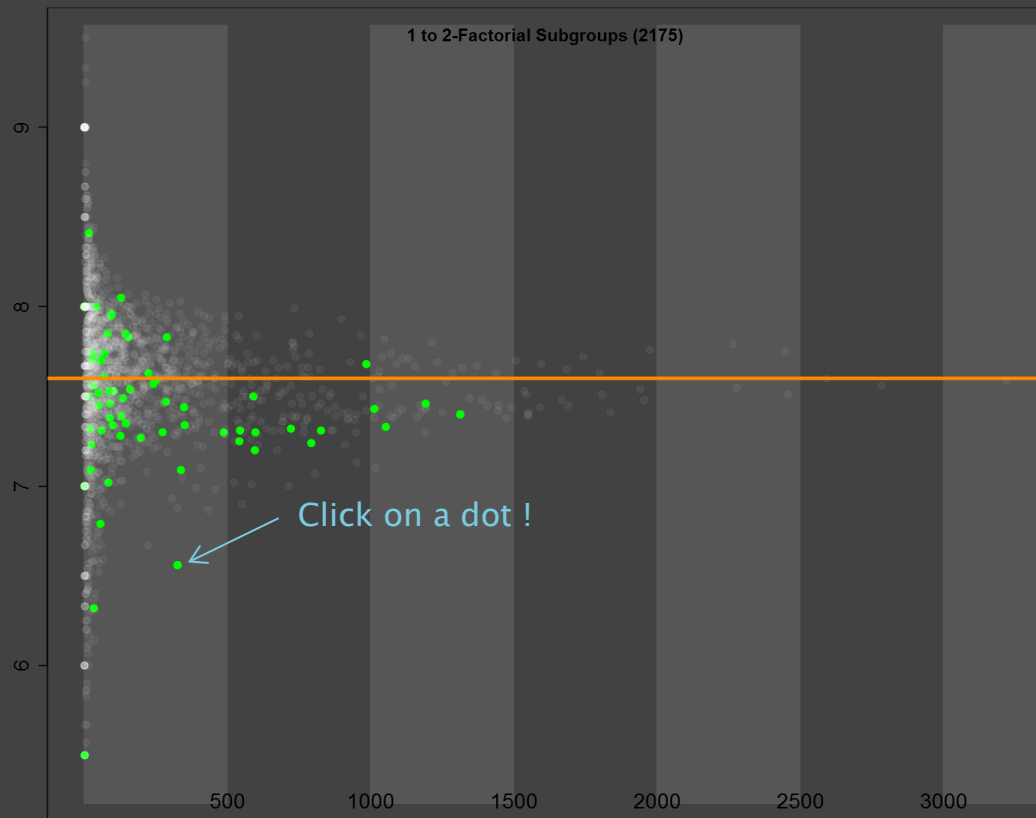


Y Range



Selected Subgroups

Filtered Subgroups



Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

employed

Choose a value

non-working

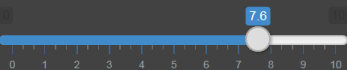
Subgroup levels



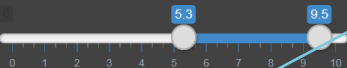
Plot type

☐ linear ☒ logarithmic

Reference line



Y Range



Selected Subgroups

Filtered Subgroups

Show 6 entries

Search:

SGID

number.of.subjects

satisfact

nfactors

employed

smoker

1143

1143

327

6.56

2

non-working

Y





Contact



e-mail: Bodo.Kirsch@bayer.com

R-PACKAGE: <https://cran.r-project.org/web/packages/subscreen/index.html>

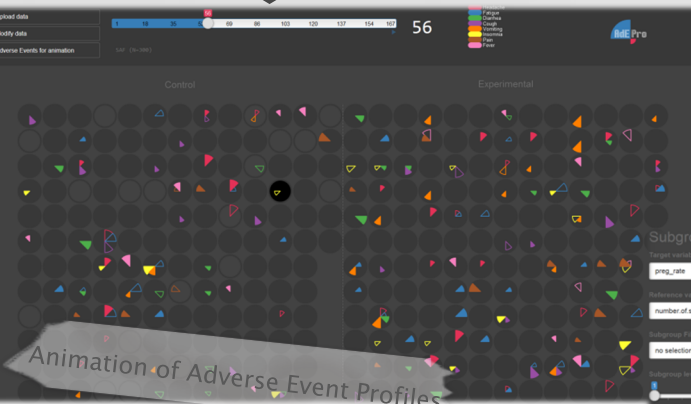
DATA: <http://wikis.fu-berlin.de/pages/viewpage.action?pageId=696156185>

GESIS – Leibniz-Institut für Sozialwissenschaften (2016): German General Social Survey – ALLBUS 2014. GESIS Datenarchiv, Köln. ZA5242 Datenfile Version 1.0.0, <http://dx.doi.org/10.4232/1.12437>

Biostatistics Innovation Center



AdEPro



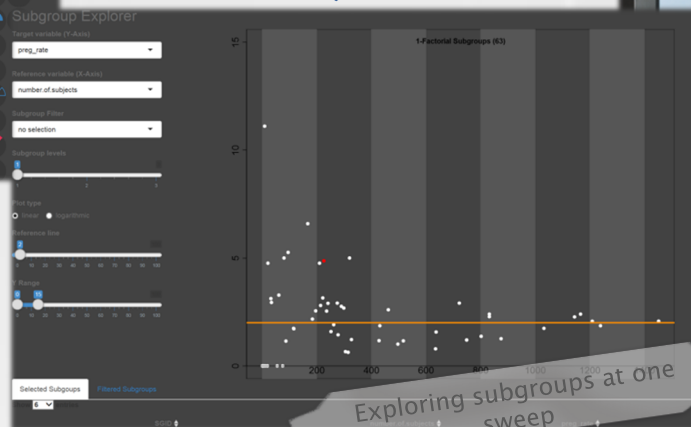
Animation of Adverse Event Profiles

Megaplots



all patient data on one screen

Subgroup Explorer



Exploring subgroups at one sweep