

Pattern of contacts attempts in surveys

Second part: some results

Lausanne Conference on sequence analysis, may 2012

Alexandre Pollien and Dominique Joye, FORS & MISC, Lausanne

Empirical development

Bases:

- ESS 2010
- MOSAiCH 2011

Two face-to-face surveys with almost the same contact procedure

Goals:

- Showing and understanding the process of participation (prevention of nonresponse)
- Finding bias of nonresponse (rectify sample)

Challenges:

- Reduction of the complexity of the sequences
- Tuning parameters to account the process of participation

Reduction of the complexity of the sequences (1)

A codification has been elaborate to simplify the outcome (interaction of contact):

Types of outcome:	Participant:	Abbrev.
Non-contact		NC
Appointment made with...	household or proxy	AP
Refusal by...		RP
Appointment made with...	respondent	AR
Refusal by...		RR
Interview of...		IN
Respondent unavailable		UN

Reduction of the complexity of the sequences (2): focus on first phase

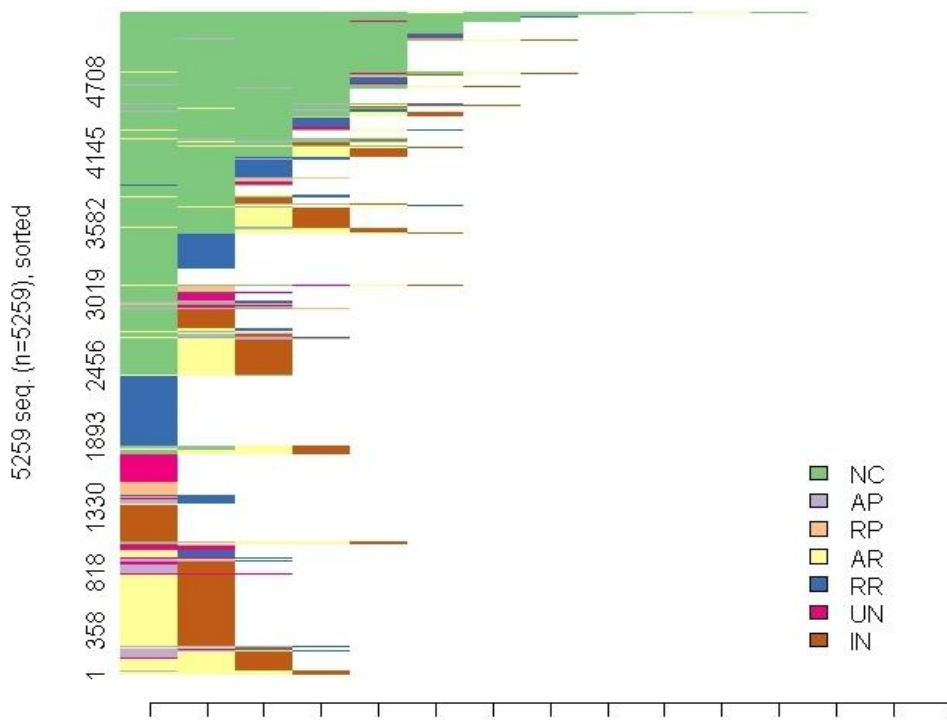
- If the respondent refuses to participate, the first **contact phase** procedure will stop.
- The second phase is called **conversion phase**. The addresses are reallocated to interviewers.
- The third phase consists of a survey **nonresponse** of one sheet of paper sent by mail to non-contact and refusal address.

We focus on the first phase, so there is one interviewer by address.

Phases of the survey: response rate

- ESS 2010 and MOSAiCH 2011
- N=5259

contact phase	42,6%
conversion phase	9,1%
nonresponse phase	20,3%
unsuccessful	28,0%



Final outcome	ESS 2010	MOSAICH 2011	Total
Interview	1276 44.8%	963 40.0%	2239 42.6%
Non-contact	427 15.0%	426 17.7%	853 16.2%
Broken appointment	34 1.2%	31 1.3%	65 1.2%
Respondant refusal	761 26.7%	673 27.9%	1434 27.3%
Proxy refusal	153 5.4%	100 4.2%	253 4.8%
Unknown legibility	163 5.7%	189 7.8%	352 6.7%
Ineligibility	36 1.3%	27 1.1%	63 1.2%
Total	2850 100.00%	2409 100.00%	5259 100.0%

The outcomes after 1st phase of contact indicate a gross response rate of 42,6%. The final response rate is 51.7%.

Testing variables (whole sample): Localisation (based of sample register)

- Center-agglomeration
- Rural region

Type of dwelling (interviewer's assessment)

- Detached House
- Flat in multi-unit House
- New house

Experience of interviewer

- Inexperienced interviewer at this address
(number of contact made in face to face survey)

« Demographic family type » (based on register)

< 22	All
22 to 38	Single or men divorced
	Married or women divorced
38 to 64	Single
	Married
>64	All

Social stratification (assessed by interviewer):

- Low economic status
- High economic status

Nationality (based on register)

- Swiss born in CH
- Neighbouring countries (IT, FR, AT, DE)
- Not neighbouring countries

Testing variables (only « respondents”):

Family types

- Young (<35) living without partner and without child
- Single-parent family (with children <18)
- Big household (more than 4 household members)

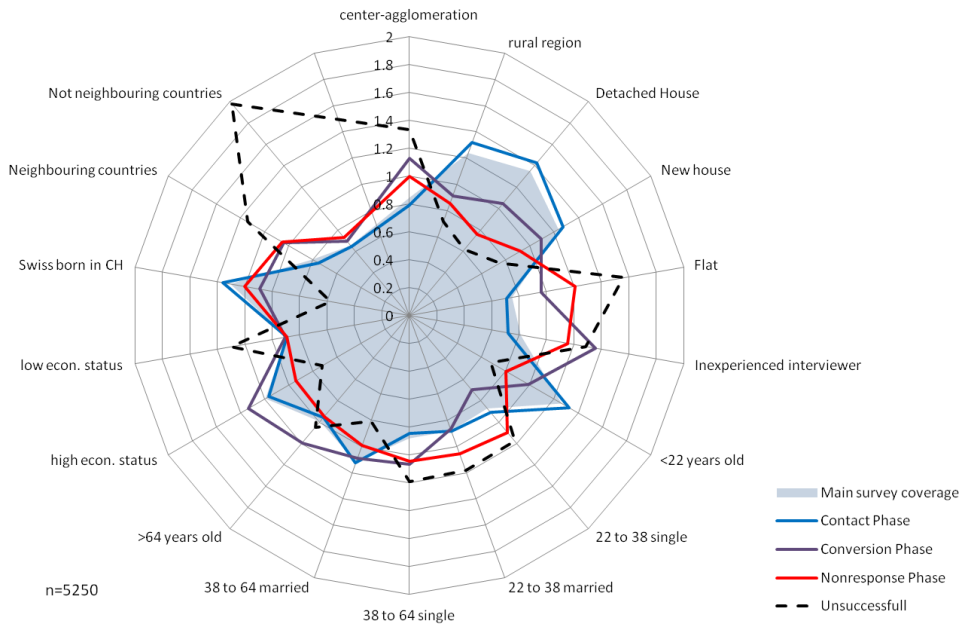
Professional activity

- Retired
- Hard worker:
 - >42 working hours (MOSAiCH)
 - 2 items of work pressure (ESS)

General attitudes

- Xenophobic attitude:
 - immigrants make country worse place to live (ESS)
 - giving more chance to Swiss than to foreigners (MOSAiCH)
- Satisfaction with the way the democracy works
- Interest in politic
- Usefulness of polls

Odd ratio of “whole sample” categories



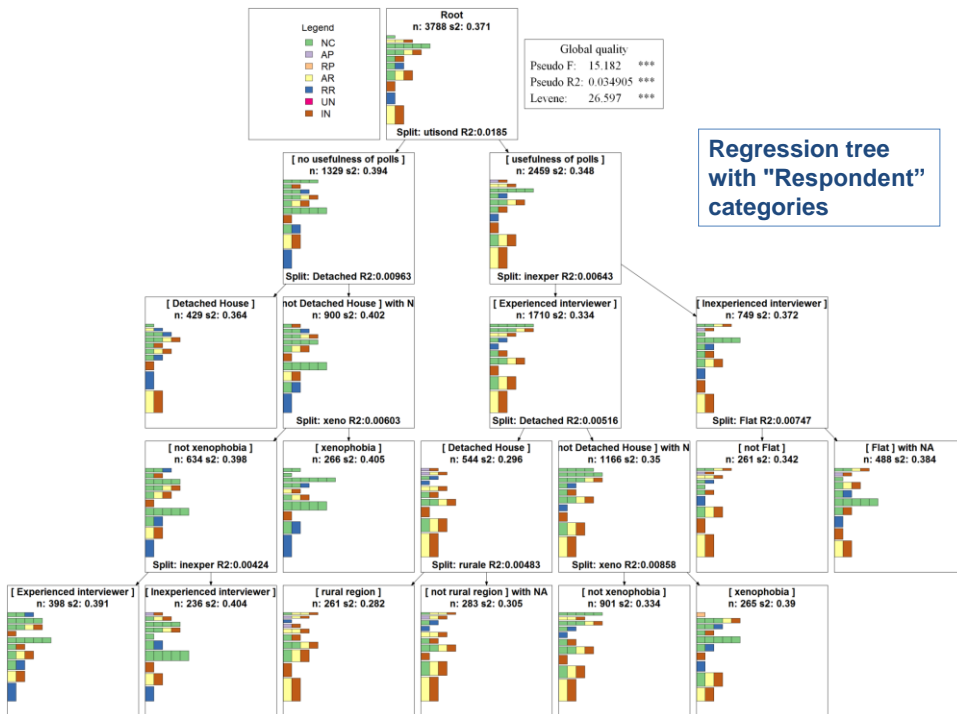
Discrepancy P-value on “Respondents” categories: differents metrics

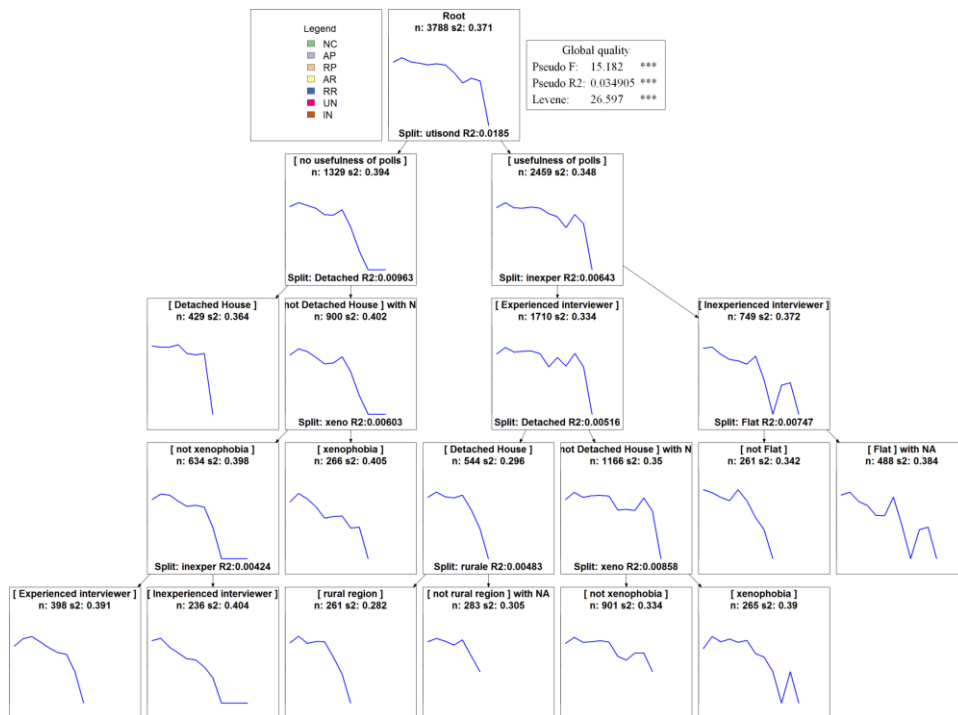
	Discrepancy P-value	RLCP	Reversed sequence				LCS	OM indel = 1.0	LCP	OM indel = 2.0 not norm.	Reversed sequence OM indel = 2.0 not norm.
			OM indel = 2.0	OM indel = 2.0	OM indel = 1.5	OM indel = 2.5					
Geographical situation	center-agglomeration	0.000	0.273	0.656	0.207	0.325	0.136	0.136	0.000	0.006	0.008
	rural region	0.000	0.003	0.026	0.001	0.010	0.000	0.000	0.012	0.003	0.009
Type of dwelling	Detached House	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
	Flat	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Interviewer	New house	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.420	0.000	0.000
	Inexperienced interviewer	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.245	0.051	0.036
Type of household/family	Young and live alone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.652	0.464	0.370
	Single-parent family	0.020	0.093	0.188	0.092	0.102	0.079	0.113	0.051	0.079	0.097
	Big household	0.000	0.004	0.009	0.016	0.001	0.018	0.071	0.454	0.002	0.003
Economic status	High	0.015	0.096	0.186	0.150	0.069	0.125	0.241	0.124	0.002	0.003
	Low	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
Activity	Hard worker	0.000	0.483	0.910	0.633	0.407	0.879	0.915	0.000	0.000	0.000
	Retired	0.010	0.309	0.022	0.083	0.597	0.049	0.010	0.003	0.000	0.000
Attitude	Xenophobia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.377	0.378
	Satisfaction in democracy	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.234	0.196	0.178
	Interest in politic	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.555	0.003	0.006
	usefulness of polls	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.290	0.003	0.001

n= 3788

Multi-factor discrepancy analysis

Variables	PseudoF	PseudoR2	Sig.	PseudoF	PseudoR2	Sig.
Rural region	5.026	0.131 x 10 ⁻²	0.000	4.832	0.088 x 10 ⁻²	0.016
Detached House	4.063	0.106 x 10 ⁻²	0.001	4.062	0.074 x 10 ⁻²	0.101
Flat (multi-unit)	2.370	0.062 x 10 ⁻²	0.021	3.957	0.072 x 10 ⁻²	0.133
New house	4.259	0.111 x 10 ⁻²	0.001	7.115	0.129 x 10 ⁻²	0.000
Inexperienced interviewer	12.647	0.329 x 10 ⁻²	0.000	18.943	0.344 x 10 ⁻²	0.000
Young and live alone	7.838	0.204 x 10 ⁻²	0.000	3.891	0.071 x 10 ⁻²	0.171
Single-parent family	3.373	0.088 x 10 ⁻²	0.004	6.637	0.121 x 10 ⁻²	0.000
Retired	6.021	0.157 x 10 ⁻²	0.000	4.693	0.085 x 10 ⁻²	0.018
Hard worker	6.802	0.177 x 10 ⁻²	0.000	5.939	0.108 x 10 ⁻²	0.001
Xenophobia	14.560	0.379 x 10 ⁻²	0.000	6.952	0.126 x 10 ⁻²	0.000
Satisfaction in democracy	2.544	0.066 x 10 ⁻²	0.016	3.904	0.071 x 10 ⁻²	0.179
Interest in politic	3.386	0.088 x 10 ⁻²	0.003	5.146	0.094 x 10 ⁻²	0.007
Usefulness of polls	58.194	1.516 x 10 ⁻²	0.000	15.555	0.283 x 10 ⁻²	0.000
Non contact				2.851	0.052 x 10 ⁻²	0.003
Refusal				1'146.359	20.840 x 10 ⁻²	0.000
Total	13.412	4.540 x 10 ⁻²	0.000	108.255	33.446 x 10 ⁻²	0.000

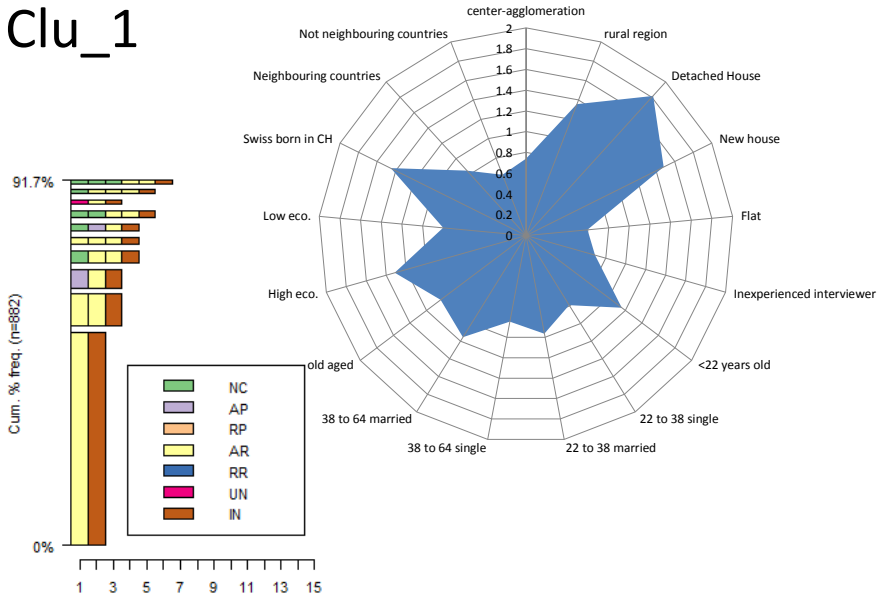




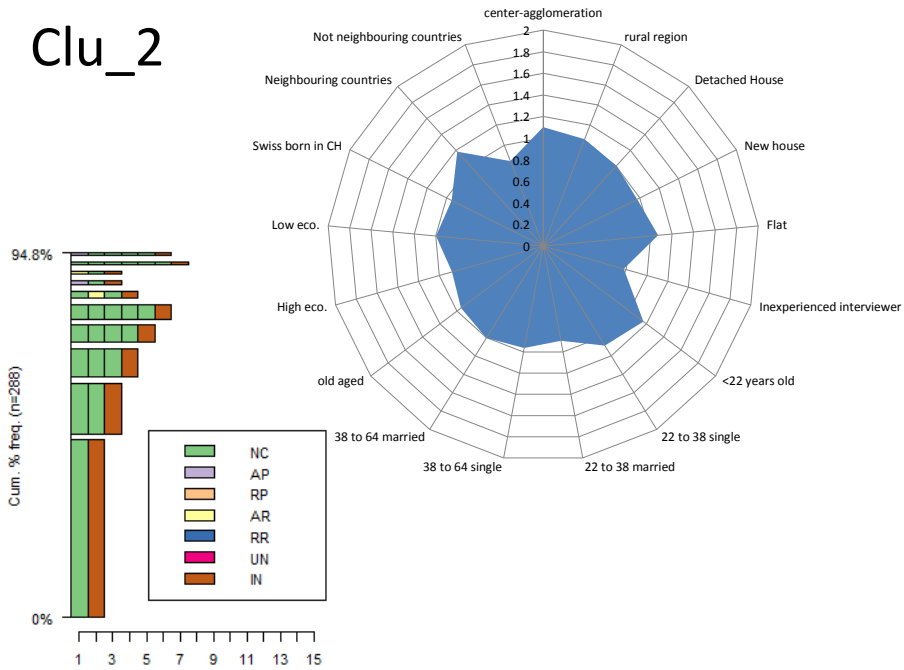
Clustering RLCP distances

- Hierarchical Clustering (agglomerative nesting)

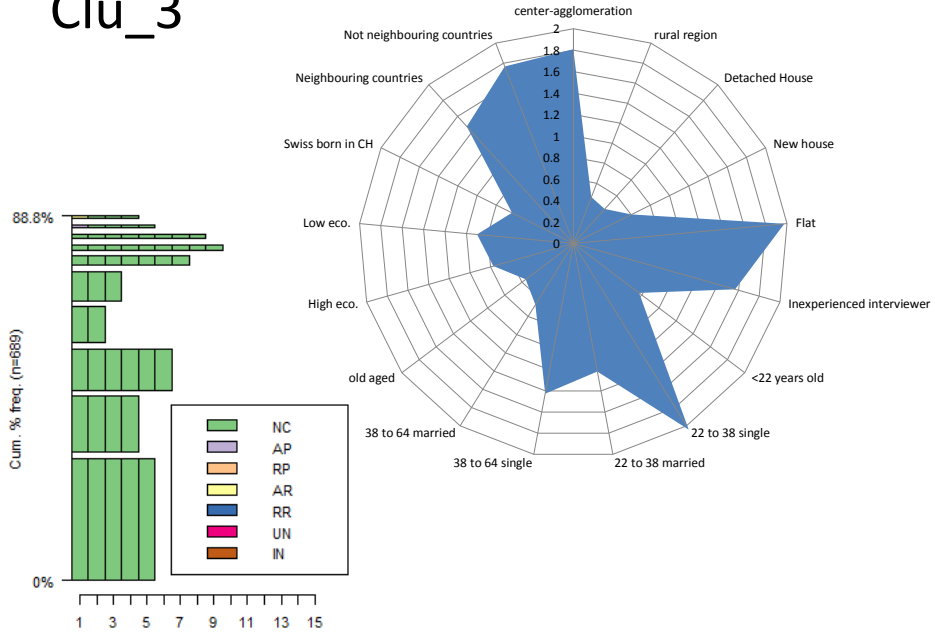
Clu_1



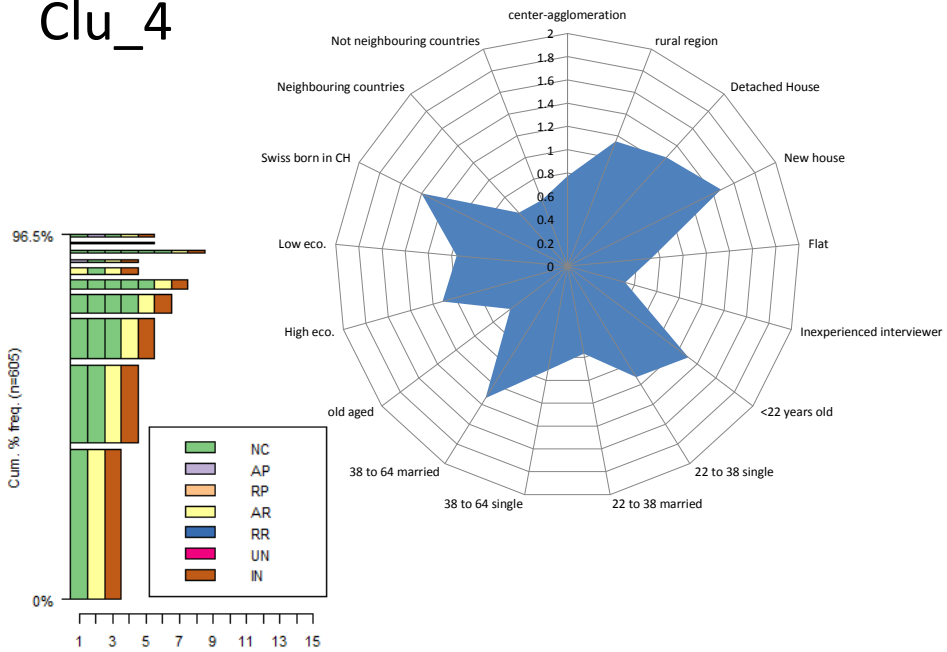
Clu_2



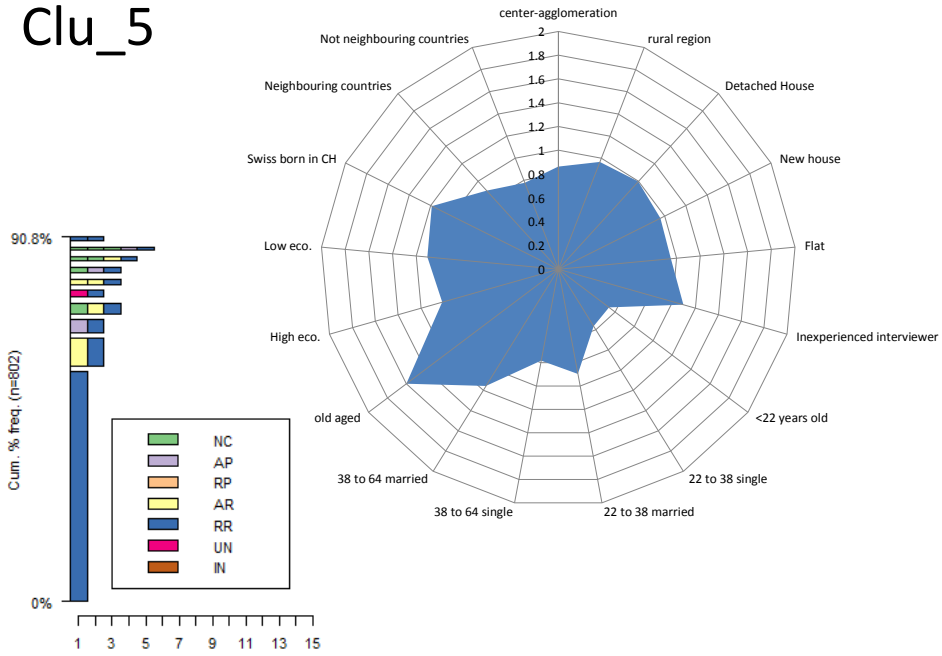
Clu_3



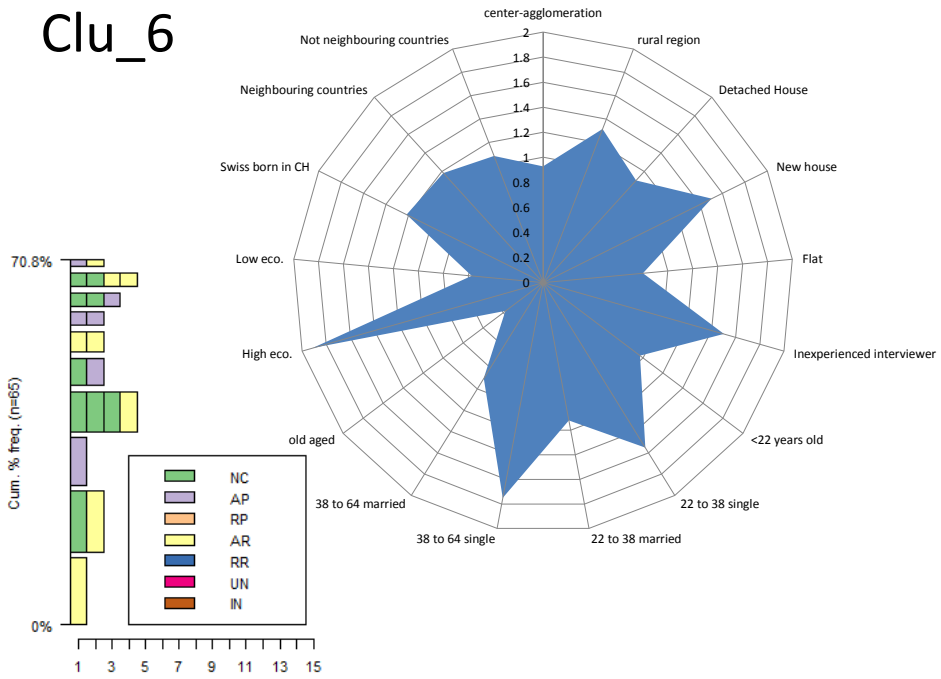
Clu_4



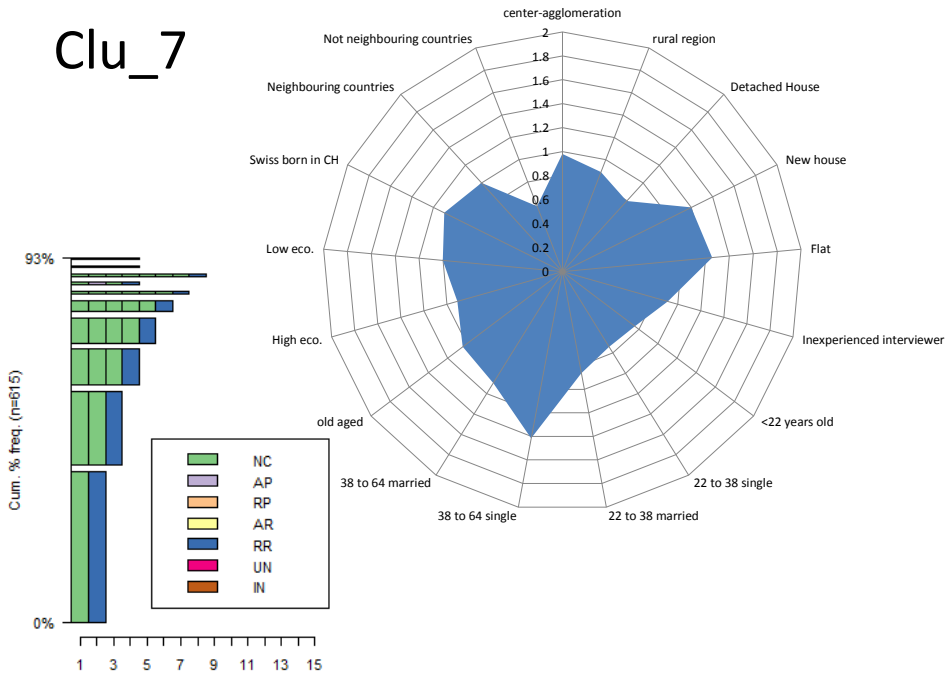
Clu_5



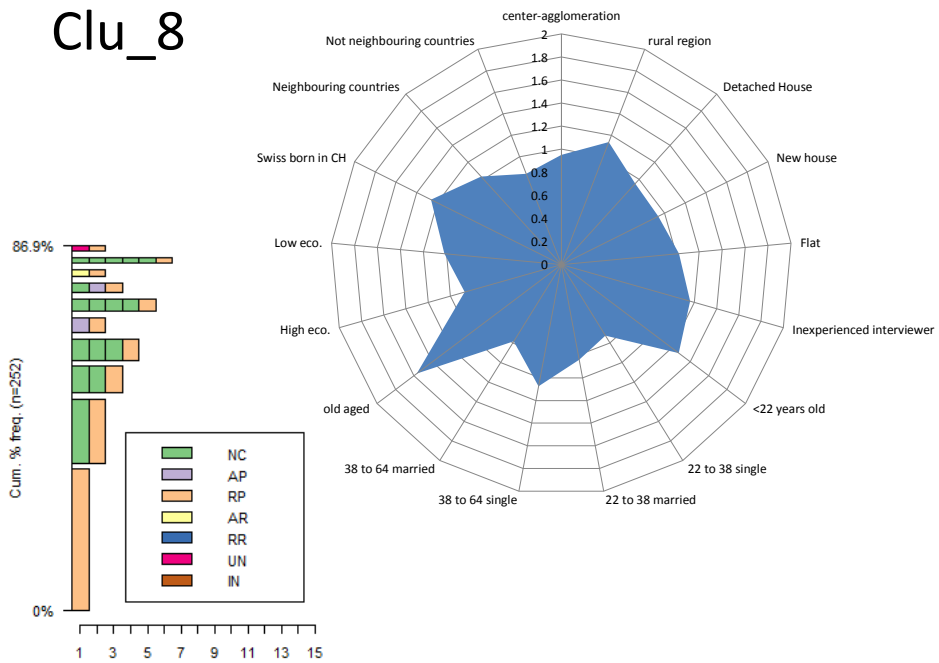
Clu_6



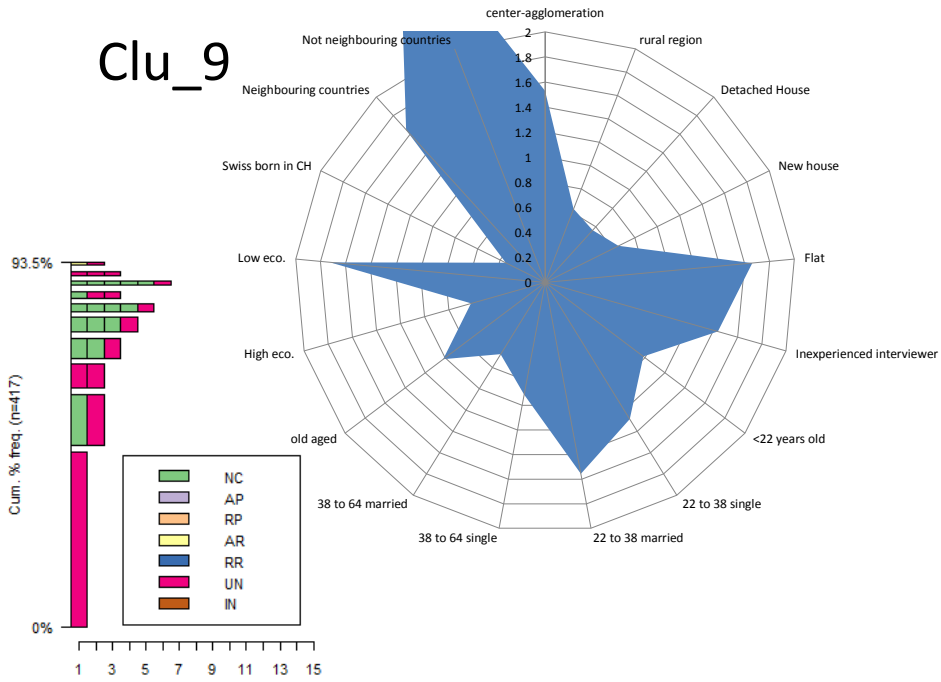
Clu_7



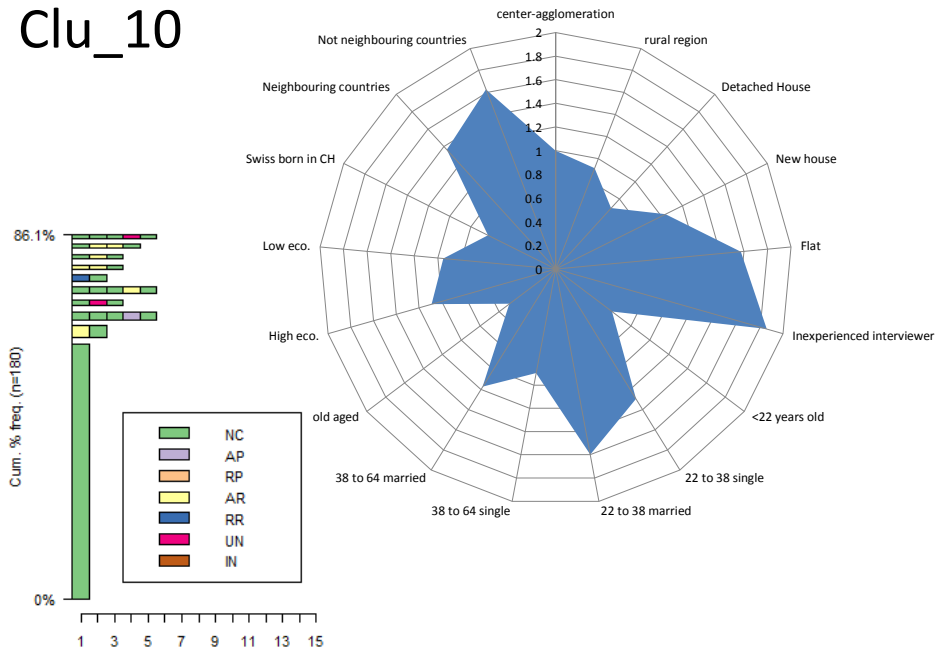
Clu_8



Clu_9



Clu_10



Clu_11

