

## PRS includes 4 factors

1. Fascination,
2. Being Away,
3. Extent Coherence,
4. Extent Scope

Questions from the survey related to PRS:

PRS	facto	variable	full question
r	1	LQUAL1	This place is fascinating
	1	LQUAL2	In this place my attention is drawn to many interesting things
	1	LQUAL3	It's hard to get bored in this place
	2	LQUAL4	This place is a refuge from annoyance
	2	LQUAL5	In this place I can get away from things that normally occupy my attention
	2	LQUAL6	In this place I can stop thinking about the things I still have to do
	3	LQUAL7	There is a clear order of things in this place
	3	LQUAL8	In this place it is easy to see how things are organised
	3	LQUAL9	In this place everything seems to have its right place
	4	LQUAL10	This place is big enough to allow exploration in many directions
	4	LQUAL11	In this place, there are few boundaries that restrict my movements

## GIS variables for modeling

RL\_NDVI + RL\_NOISE + HM\_NOISE + DISTKM + JNYTIME + LCARTIF +  
LCFOREST + HETER + VIS5K + OVDIST + STRIMP123 + STRIMP999

Acronym	Explanation
LCARTIF	proportion of artificial surfaces within 250 m buffer
LCFOREST	proportion of forest within 250 m buffer
HETER	land cover heterogeneity in 250 m buffer
OVDIST	distance to the nearest public transport stop
VIS5K	percentage of visible area within a radius of 5 km
RL_NDVI	mean NDVI in 250 m buffer around RL
RL_NOISE	mean street noise in 250 m buffer around RL
HM_NOISE	person's noise exposure at home (facade)
DISTKM	Euclidean distance between home and RL
JNYTIME	travel time from home to RL (as indicated in the survey)
STRIMP123	length of roads with high traffic intensity
STRIMP999	length of other roads (low traffic intensity)

## Mediators

FEELNAT values: [1-7]

LNOISE values: [1-5]

SENS = aggregated( LOC\_... values: [1-5]) > using mean (?)

FEELNAT	How true is the following statement for the place you indicated on the map? I have the feeling of being in nature at this place	factor
LNOISE	How would you describe the noise environment at the site in the map in general?	factor
LOC_SENS	At this location, I noticed... Sensations, like wind in my hair, rain on my face, earth under my feet	factor
LOC_SOUN	At this location, I noticed... Sounds, like the chirping of birds or the rush of water	factor
LOC_SCEN	At this location, I noticed... Scents, for example flowers or the smell of earth	factor
LOC_VISE	At this location, I noticed... Visual elements: Colors, shapes, textures, or patterns of light and shadow	factor
LOC_VEGE	At this location, I noticed... Vegetation and its change (e.g., flowers in bloom; colorful leaves on trees)	factor
LOC_FAUN	At this location, I noticed... Wild animals, in their habitat	factor

## Database Cleaning Criteria

I have not run this!!!! Therefore, the data I send you include NA - Lukas mentioned performing some NA imputation.

```
# 1. FEELNATURE and NOISEANNOY_1 and HM/RL_NDVI and HM/RL_NOISE exclude #NULL!
# 2. ACTIVITY exclude NA and 6 (no outdoor activity in the past 4 weeks)
# 3. HEADPHNE exclude 2 and 3 (wearing headphones)
# 4. MAPDATA exclude 0 (not mapped RL)
# 5. DISTKM excludes values above of the 90th percentile (extremely large values) and
# 6. DURATION excludes values above of the 90th percentile (extremely large values)
# 7. JOURNEY TIME excludes values above of the 99th percentile (extremely large values)
# 8. HM_NOISE exclude NA

# __Database Cleaning
df_survey <- df_survey %>%
  # filter out ACTIVITY exclude 6 (no outdoor activity in the past 4 weeks)
  filter(!is.na(REC_ACT)) %>%
  filter(!grepl('I have never been outside', REC_ACT)) %>%
  # filter out headphones
  filter(HEADPHNE == "No") %>%
  # filter out outliers by distance and duration (keep NA) using 0.9 quantile
  filter(DISTKM <= quantile(df_survey$DISTKM, 0.9)) %>%
  filter(REC_DUR <= quantile(df_survey$REC_DUR, 0.9, na.rm=T) | is.na(REC_DUR)) %>% # allow
NA
  filter(JNYTIME <= quantile(df_survey$JNYTIME, 0.99, na.rm=T) | is.na(JNYTIME)) %>%
  filter(!is.na(HM_NOISE)) # do not allow NA
```

## Variables of interest

A wide range...

```
c("ILCODE",
  "HM_NOISELVL", "HM_NDVI", "HM_NOISE", "RL_NDVI", "RL_NOISE",
  "DISTKM", "DIFNDVI", "DIFNOISE",
  "SPREG", "MAPDATA", "LANG", "AGE", "SEX",
  "EDQUAL", "EMP",
  "RESREG", "RESTYPE", "APTFLOOR", "RESOWN", "RESTERR", "RESGARD",
  "RESTOR1", "RESTOR2", "RESTOR3", "RESTOR4", "RESTOR5",
  "RESTOR6", "RESTOR7", "RESTOR8", "RESTOR9", "RESTOR10",
  "OSRELAX", "REC_ACT", "CHOSELOC",
  "WHYLOC1", "WHYLOC2", "WHYLOC3", "WHYLOC4",
  "WHYLOC5", "WHYLOC6", "WHYLOC7", "WHYLOC8",
  "LRELAX1", "LRELAX2", "LRELAX3", "LRELAX4", "LRELAX5", "LRELAX6", "LRELAX7",
  "REC_DUR", "JNYTIME", "LOCFRQ",
  "FEELNAT",
  "LOC_SENS", "LOC_SOUN", "LOC_SCEN", "LOC_VISE", "LOC_VEGE", "LOC_FAUN",
  "HEADPHNE",
  "LDOAUD1", "LDOAUD2", "LDOAUD3", "LDOAUD4",
  "LSOUNDS1", "LSOUNDS2", "LSOUNDS3", "LSOUNDS4", "LSOUNDS5",
  "LSOUNDS6", "LSOUNDS7", "LSOUNDS8", "LSOUNDS9",
  "LNOISE",
  "LSANNOY1", "LSANNOY2", "LSANNOY3", "LSANNOY4",
  "LSANNOY5", "LSANNOY6", "LSANNOY7",
  "LQUAL1", "LQUAL2", "LQUAL3", "LQUAL4", "LQUAL5", "LQUAL6",
  "LQUAL7", "LQUAL8", "LQUAL9", "LQUAL10", "LQUAL11",
  "LIFESAT", "HEALTH",
  "AUDSENS", "HEARPROB", "STRTOL", "PSTRESS", "WKSTRESS",
  "FREETIME", "GRNTIME",
```

"NATURE1", "NATURE2", "NATURE3", "NATURE4", "NATURE5",  
"LCWATER", "LCFOREST", "LCARTIF", "LCCULTIV", "LCGRASS", "LCDOMLBL",  
"LKSHR", "RIVR", "STRIMP123", "STRIMP999", "HIKPTH",  
"TPI", "OVDIST", "VIS5K",  
"HETER")