Conformity

Your Name Here

3 May 2020

Due by 23:59, Sunday, 3 May 2020

Description

The data consist of 25 items which the 75 subjects rated on a Likert Agreement scale of 1 to 5 (1 = "strongly agree"; 7 = "strongly disagree". In addition the first three columns cantain gender, age and ethnicity information. The scale items are labeled according to their conceptual grouping: Self-Esteem (SE), Belonging (B), Conformity (C):

SE1, SE2R, SE3, SE4, SE5R, SE6R, SE7R
B1R, B2, B3R, B4R, B5R, B6R, B7R, B8R C1, C2R, C3, C4R, C5, C6, C7, C8, C9R

Some items had positive connotations and some had negative. The R suffix means that the meaning of the scale numbers are reversed for that item. The code chunk below shows how to reverse the ratings (1 = 7, 7 = 1, etc.) so that the numbers have the same meaning across all questions.

Load the original data

```r
df.raw <- read.csv("CLEAN_90_SBC.csv")

# clean up the data
# items that need reversed
ISER <- c("SE2R", "SE5R", "SE6R", "SE7R")
IBR  <- c("B1R", "B3R", "B4R", "B5R", "B6R", "B7R", "B8R")
ICR  <- c("C2R", "C4R", "C9R")

df <- df.raw %>%
    mutate_at(c(ISER, IBR, ICR), function(x) {8 - x}) %>%
    # rename_at(vars(ends_with("R")), funs(str_replace(., "R", "")))
    rename_at(vars(ends_with("R")), function(x) {str_replace(x, "R", "")})

# df now has all the rating numbers mean the same thing and
# the column names that have been reversed have had the "R" removed
# from the name.
```

Task

Use an appropriate subset of the techniques presented by Patrick Mair in Chapters 2, 3, 4 and 8 (perhaps) to find structure and latent variables in the data set. Are the latent variables similar to those described in the journal articles? Can you find any relationship of the demographic variables to the latent variables you have discovered.

There is no single approach that is correct. The tools for dealing with these data are scattered throughout the above-cited chapters and Mair uses this data set in a variety of settings:

- Optimal Scaling
- Tetrachoric and polychoric correlations
- Exploratory Factor Analysis
- Confirmatory Factor Analysis
- Item Response Theory (IRT) Analysis

Follow some examples in the book and adapt them to this particular set of data. Above all ask questions and seek my advice and help.

References

Cialdini, R. B., & Goldstein, N. J. (2004, 2004/02/01). Social Influence: Compliance and Conformity. *Annual Review of Psychology, 55*(1), 591-621. https://doi.org/10.1146/annurev.psych.55.090902.142015

Demo, D. H. (1985). The measurement of self-esteem: Refining our methods. *Journal of Personality and Social Psychology, 48*(6), 1490-1502. https://doi.org/10.1037/0022-3514.48.6.1490

Hagerty, B., & Patusky, K. (1995, 01/01). Developing a Measure Of Sense of Belonging. *Nursing Research, 44*, 9-13. https://doi.org/10.1097/00006199-199501000-00003