## Multivariate Analysis for the Behavioral Sciences, Second Edition (Chapman and Hall/CRC, 2019)

# Exercises of Chapter 10: Analysis of Longitudinal Data III: Non-Normal Responses

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## Exercises

### Exercise 10.1

Use the epilepsy data, modifying the related R code given in the Examples of Chapter 10.

### Exercise 10.2

Use both the respiratory and epilepsy data sets, modifying the related R code given in the **Examples of Chapter 10**.

### Exercise 10.3

See Table 10.13 in the book and use the schizophrenia data (see below). Modify the R codes given in the **Examples of Chapter 10** to create suitable graphics and to analyse the data.

```
library("HSAUR3")
```

## Loading required package: tools

```
data("schizophrenia2", package = "HSAUR3")
head(schizophrenia2, 20)
```

```
subject
##
                    onset disorder month
              1 < 20 yrs
## 1
                            present
                                          2
## 45
              1 < 20 \text{ yrs}
                            present
## 89
              1 < 20 yrs
                                          6
                             absent
              1 < 20 yrs
                                          8
## 133
                             absent
## 177
              1 < 20 yrs
                                         10
                             absent
              2 > 20 yrs
## 2
                             absent
                                          0
## 46
              2 > 20 yrs
                             absent
                                          2
## 90
              2 > 20 \text{ yrs}
                             absent
                                          6
## 134
              2 > 20 \text{ yrs}
                                          8
                             absent
## 178
              2 > 20 yrs
                             absent
                                         10
              3 < 20 yrs
                                          0
## 3
                            present
## 47
              3 < 20 \text{ yrs}
                            present
                                          2
                                          6
## 91
              3 < 20 yrs
                             absent
## 135
              3 < 20 \text{ yrs}
                             absent
                                          8
## 179
              3 < 20 yrs
                             absent
                                         10
## 4
              4 < 20 yrs
                                          0
                             absent
                                          2
## 48
              4 < 20 yrs
                             absent
## 92
              4 < 20 yrs
                                          6
                             absent
## 136
              4 < 20 yrs
                             absent
                                          8
## 180
              4 < 20 yrs
                             absent
                                         10
```