

Projet Analyse de Donnée

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2024-12-19

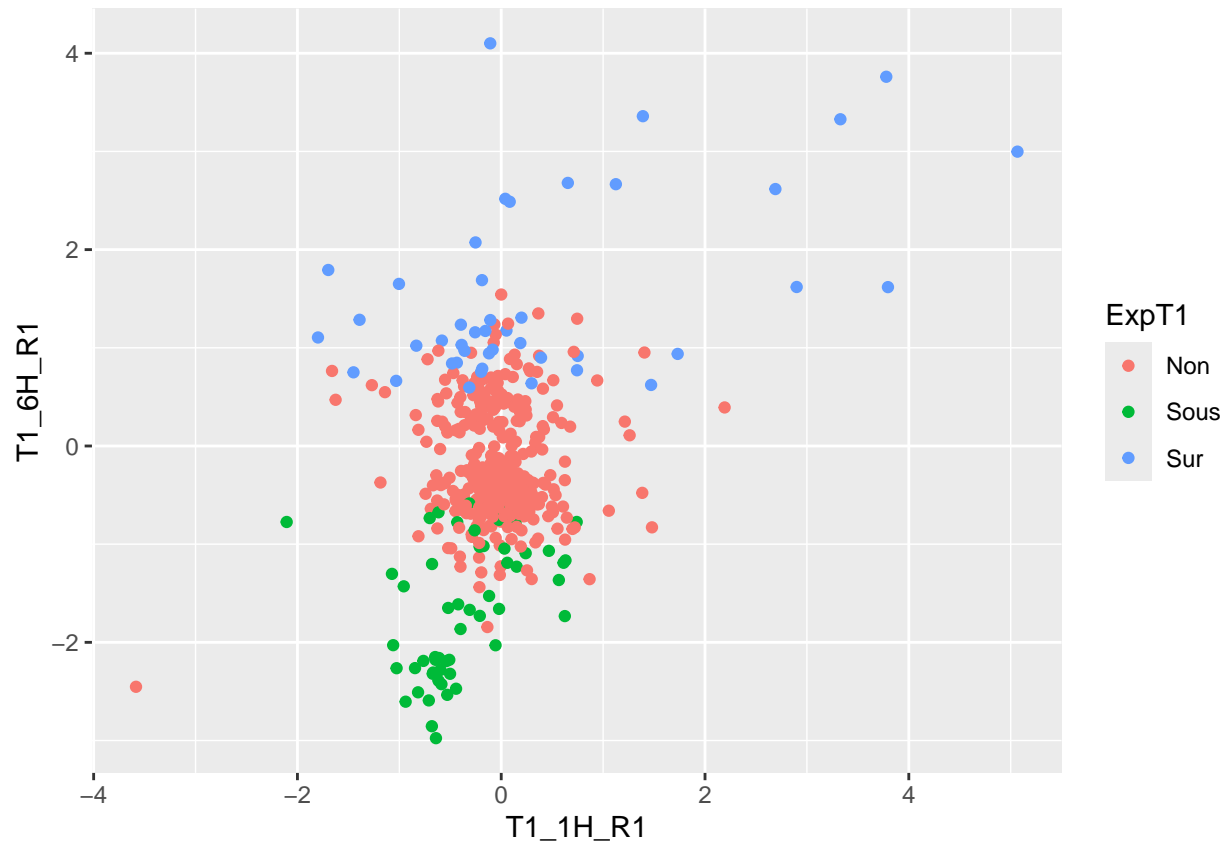
R Markdown

Chargement du jeux de donnée:

```
## Le chargement a nécessité le package : ggplot2
```

```
##      T1_1H_R1      T1_2H_R1      T1_3H_R1      T1_4H_R1
## Min.   :-3.58436  Min.    :-4.3034  Min.    :-2.26607  Min.    :-2.56731
## 1st Qu.:-0.22978  1st Qu.:-0.1404  1st Qu.:-0.28249  1st Qu.:-0.42895
## Median :-0.03631  Median : 0.1420  Median :-0.05927  Median : 0.16867
## Mean   :-0.02951  Mean    : 0.1767  Mean    : 0.04103  Mean    : 0.05281
## 3rd Qu.: 0.12204  3rd Qu.: 0.3904  3rd Qu.: 0.15839  3rd Qu.: 0.44483
## Max.    : 5.06654  Max.    : 7.2821  Max.    : 6.61788  Max.    : 6.87671
##      T1_5H_R1      T1_6H_R1      T2_1H_R1      T2_2H_R1
## Min.   :-5.5106  Min.    :-2.9759  Min.    :-4.30401  Min.    :-4.5825
## 1st Qu.:-0.4788  1st Qu.:-0.6124  1st Qu.:-0.43935  1st Qu.:-0.9932
## Median :-0.1984  Median :-0.3724  Median : 0.13065  Median : 0.3289
## Mean   :-0.1585  Mean    :-0.2416  Mean    : 0.06039  Mean    : 0.4714
## 3rd Qu.: 0.2077  3rd Qu.: 0.2413  3rd Qu.: 0.46011  3rd Qu.: 1.9464
## Max.    : 5.8582  Max.    : 4.1009  Max.    : 8.66345  Max.    : 8.7483
##      T2_3H_R1      T2_4H_R1      T2_5H_R1      T2_6H_R1
## Min.   :-6.6293  Min.    :-5.813548  Min.    :-5.8017  Min.    :-5.6784
## 1st Qu.:-2.0451  1st Qu.:-2.406108  1st Qu.:-2.4172  1st Qu.:-2.5552
## Median : 0.3733  Median : 0.008421  Median : 0.7556  Median : 1.8857
## Mean    : 0.3805  Mean    : 0.197409  Mean    : 0.1521  Mean    : 0.2313
## 3rd Qu.: 2.7644  3rd Qu.: 2.699218  3rd Qu.: 2.5236  3rd Qu.: 2.7235
## Max.    : 8.9881  Max.    : 7.503939  Max.    : 7.0606  Max.    : 8.8815
##      T3_1H_R1      T3_2H_R1      T3_3H_R1      T3_4H_R1
## Min.   :-2.9561  Min.    :-4.9884  Min.    :-5.8280  Min.    :-6.0789
## 1st Qu.:-0.4409  1st Qu.:-1.1066  1st Qu.:-1.5925  1st Qu.:-2.4930
## Median : 0.1573  Median : 0.6914  Median : 0.9585  Median : 0.9982
## Mean    : 0.1714  Mean    : 0.5878  Mean    : 0.6387  Mean    : 0.2736
## 3rd Qu.: 0.6673  3rd Qu.: 2.3016  3rd Qu.: 2.7533  3rd Qu.: 2.7854
## Max.    : 8.6849  Max.    : 8.6560  Max.    : 8.0950  Max.    : 7.0103
##      T3_5H_R1      T3_6H_R1      T1_1H_R2      T1_2H_R2
## Min.   :-6.910  Min.    :-4.7625  Min.    :-2.11580  Min.    :-2.75004
## 1st Qu.:-2.487  1st Qu.:-2.0911  1st Qu.:-0.28225  1st Qu.:-0.27271
## Median : 1.156  Median : 1.8690  Median :-0.02432  Median :-0.04075
## Mean    : 0.258  Mean    : 0.3913  Mean    :-0.04445  Mean    : 0.10717
## 3rd Qu.: 2.709  3rd Qu.: 2.4879  3rd Qu.: 0.15670  3rd Qu.: 0.25383
## Max.    : 6.529  Max.    : 8.6398  Max.    : 4.70943  Max.    : 7.03638
```

##	T1_3H_R2	T1_4H_R2	T1_5H_R2	T1_6H_R2
##	Min. : -3.2539	Min. : -3.50770	Min. : -3.3307	Min. : -2.4863
##	1st Qu.: -0.1229	1st Qu.: -0.51001	1st Qu.: -0.6437	1st Qu.: -0.9686
##	Median : 0.2674	Median : -0.27091	Median : -0.3845	Median : -0.7215
##	Mean : 0.3033	Mean : -0.02457	Mean : -0.2410	Mean : -0.3082
##	3rd Qu.: 0.5068	3rd Qu.: 0.27652	3rd Qu.: 0.1442	3rd Qu.: 0.5814
##	Max. : 7.1995	Max. : 6.52284	Max. : 5.2469	Max. : 3.9054
##	T2_1H_R2	T2_2H_R2	T2_3H_R2	T2_4H_R2
##	Min. : -2.38587	Min. : -5.8266	Min. : -4.6135	Min. : -6.4553
##	1st Qu.: -0.48477	1st Qu.: -1.2309	1st Qu.: -1.4511	1st Qu.: -2.3416
##	Median : 0.03105	Median : 0.6644	Median : 0.5351	Median : 0.5323
##	Mean : 0.08932	Mean : 0.4684	Mean : 0.5999	Mean : 0.1279
##	3rd Qu.: 0.61495	3rd Qu.: 2.1298	3rd Qu.: 2.5954	3rd Qu.: 2.4618
##	Max. : 8.59820	Max. : 8.8928	Max. : 8.4956	Max. : 8.0010
##	T2_5H_R2	T2_6H_R2	T3_1H_R2	T3_2H_R2
##	Min. : -6.1685	Min. : -6.2234	Min. : -3.22436	Min. : -6.0944
##	1st Qu.: -2.4058	1st Qu.: -2.6251	1st Qu.: -0.61705	1st Qu.: -1.3567
##	Median : 1.0892	Median : 2.0014	Median : 0.07589	Median : 0.7670
##	Mean : 0.1411	Mean : 0.1572	Mean : 0.11618	Mean : 0.5725
##	3rd Qu.: 2.5033	3rd Qu.: 2.5375	3rd Qu.: 0.76673	3rd Qu.: 2.3150
##	Max. : 7.4521	Max. : 8.7777	Max. : 8.77729	Max. : 8.6354
##	T3_3H_R2	T3_4H_R2	T3_5H_R2	T3_6H_R2
##	Min. : -6.0135	Min. : -6.0345	Min. : -6.8294	Min. : -7.24672
##	1st Qu.: -1.8079	1st Qu.: -2.2277	1st Qu.: -2.5646	1st Qu.: -2.80051
##	Median : 1.1183	Median : 1.1769	Median : 1.6539	Median : 1.92082
##	Mean : 0.5828	Mean : 0.3157	Mean : 0.1338	Mean : 0.05484
##	3rd Qu.: 2.8892	3rd Qu.: 2.6455	3rd Qu.: 2.5664	3rd Qu.: 2.46450
##	Max. : 8.2637	Max. : 7.4777	Max. : 6.9137	Max. : 8.69285
##	ExpT1	ExpT2	ExpT3	
##	Length:542	Length:542	Length:542	
##	Class :character	Class :character	Class :character	
##	Mode :character	Mode :character	Mode :character	
##				
##				
##				



```
## Le chargement a nécessité le package : FactoMineR
```

```
## Le chargement a nécessité le package : factoextra
```

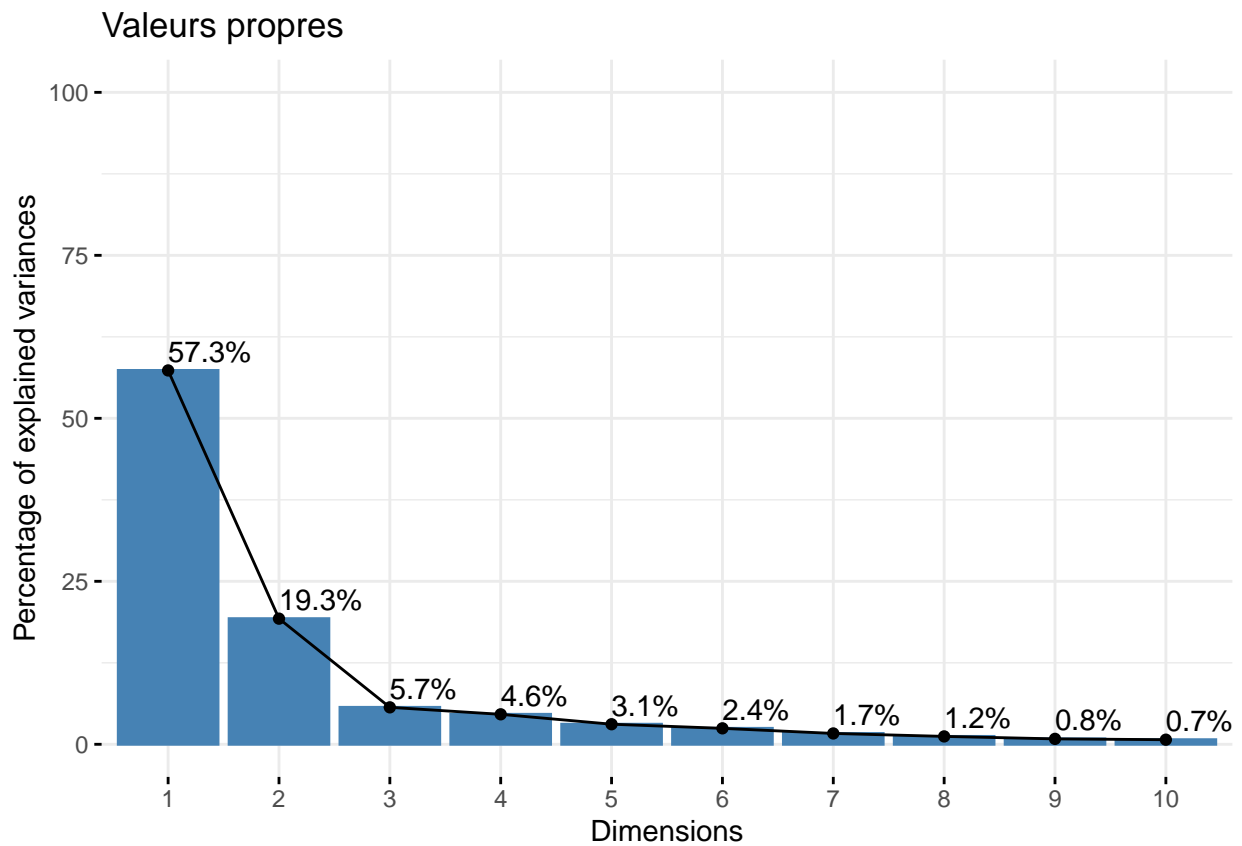
```
## Welcome! Want to learn more? See two factoextra-related books at https://goo.gl/ve3WBa
```

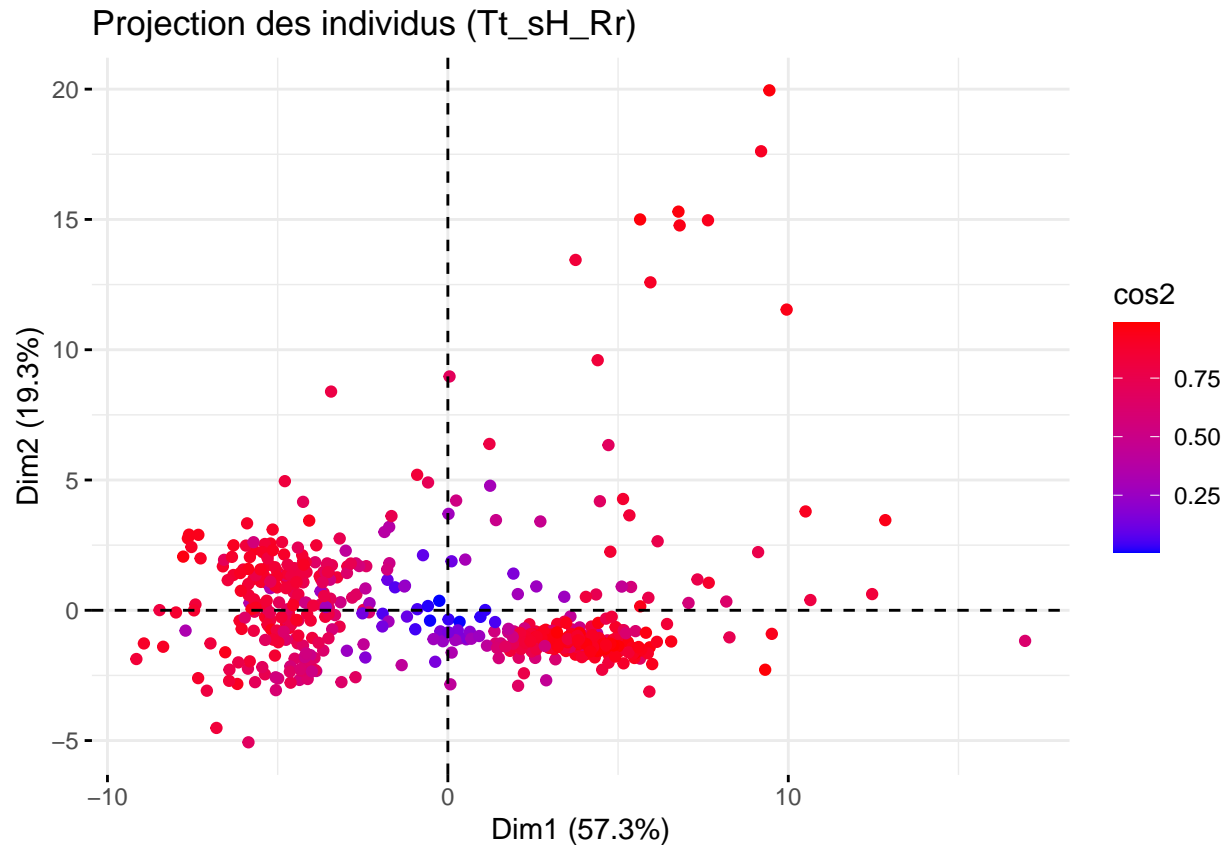
```
## Le chargement a nécessité le package : corrplot
```

```
## corrplot 0.95 loaded
```

```
##      eigenvalue percentage of variance cumulative percentage of variance
## comp 1  20.643727183          57.34368662          57.34369
## comp 2   6.938281435          19.27300398          76.61669
## comp 3   2.041274447           5.67020680          82.28690
## comp 4   1.656135505           4.60037640          86.88727
## comp 5   1.109348959           3.08152489          89.96880
## comp 6   0.881791877           2.44942188          92.41822
## comp 7   0.599431245           1.66508679          94.08331
## comp 8   0.436409980           1.21224994          95.29556
## comp 9   0.300326182           0.83423939          96.12980
## comp 10  0.254557652           0.70710459          96.83690
## comp 11  0.195646575           0.54346271          97.38036
## comp 12  0.114623243           0.31839790          97.69876
## comp 13  0.113438274           0.31510632          98.01387
```

## comp 14	0.098934866	0.27481907	98.28869
## comp 15	0.084015374	0.23337604	98.52206
## comp 16	0.075403512	0.20945420	98.73152
## comp 17	0.068914101	0.19142806	98.92295
## comp 18	0.060357899	0.16766083	99.09061
## comp 19	0.056624240	0.15728956	99.24790
## comp 20	0.045538131	0.12649481	99.37439
## comp 21	0.037080890	0.10300247	99.47739
## comp 22	0.032099053	0.08916404	99.56656
## comp 23	0.026356683	0.07321301	99.63977
## comp 24	0.021809019	0.06058061	99.70035
## comp 25	0.015239265	0.04233129	99.74268
## comp 26	0.014299054	0.03971959	99.78240
## comp 27	0.011721521	0.03255978	99.81496
## comp 28	0.010954844	0.03043012	99.84539
## comp 29	0.009729805	0.02702724	99.87242
## comp 30	0.009492364	0.02636768	99.89879
## comp 31	0.008089909	0.02247197	99.92126
## comp 32	0.006904142	0.01917817	99.94044
## comp 33	0.006571646	0.01825457	99.95869
## comp 34	0.005669160	0.01574767	99.97444
## comp 35	0.004995223	0.01387562	99.98831
## comp 36	0.004206745	0.01168540	100.00000





```
## [1] 542 18
```

```
## Warning in mean.default(DataExpMoy_full[DataExpMoy_full$ExpT1 == "Sur", :
## l'argument n'est ni numérique, ni logique : renvoi de NA
```

```
## [1] NA
```

	eigenvalue	percentage of variance	cumulative percentage of variance
## comp 1	405.0981814	74.74136189	74.74136
## comp 2	63.5464399	11.72443541	86.46580
## comp 3	19.8878459	3.66934427	90.13514
## comp 4	16.8479751	3.10848248	93.24362
## comp 5	10.2927617	1.89903352	95.14266
## comp 6	6.4759341	1.19482180	96.33748
## comp 7	5.5998433	1.03318142	97.37066
## comp 8	2.8740502	0.53026756	97.90093
## comp 9	2.4754020	0.45671624	98.35764
## comp 10	1.9014013	0.35081205	98.70846
## comp 11	1.6037165	0.29588865	99.00435
## comp 12	1.4238320	0.26269962	99.26704
## comp 13	1.1833848	0.21833668	99.48538
## comp 14	0.9911234	0.18286410	99.66825
## comp 15	0.7400607	0.13654256	99.80479
## comp 16	0.5887171	0.10861938	99.91341
## comp 17	0.4693307	0.08659237	100.00000

