

Appendix B: Correlations and PCA results for social and voice quality factors

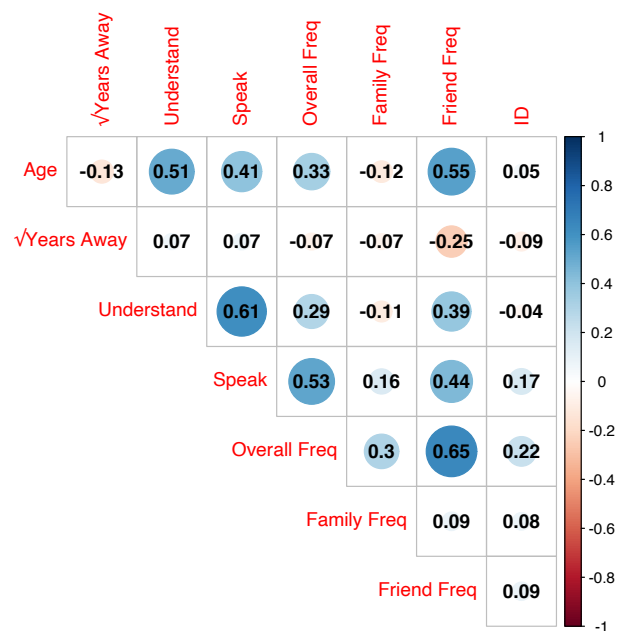


Figure 1: Social factor correlation matrix

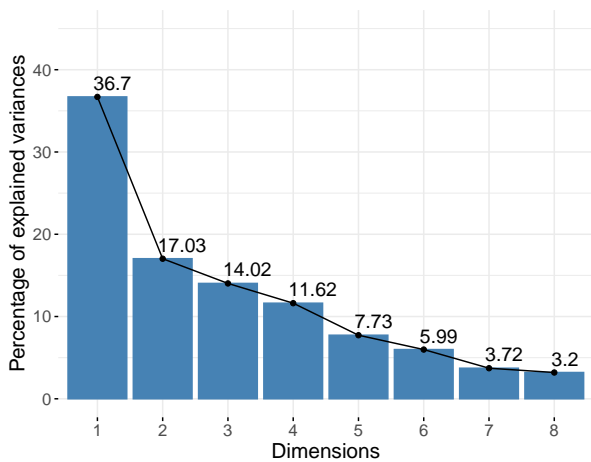


Figure 2: Scree plot for social variables

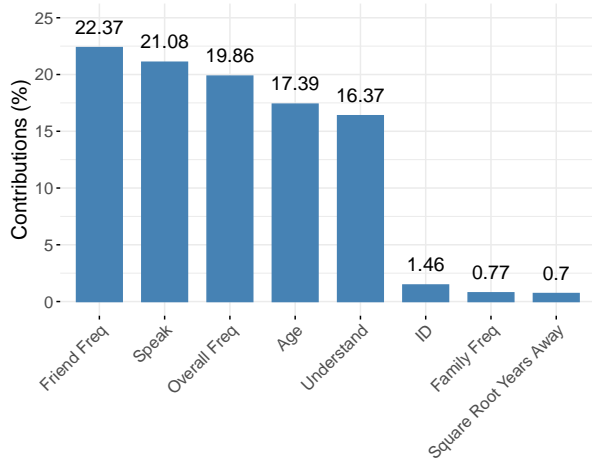


Figure 3: Social variables, Dimension 1

Table 1: Correlation of social factors to PCA dimensions

|                   | Dim 1 | Dim 2 | Dim 3 | Dim 4 | Dim 5 | Dim 6 | Dim 7 | Dim 8 |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Speak             | 0.82  | 0.38  | 0.17  | -0.01 | -0.03 | -0.09 | -0.29 | 0.24  |
| Understand        | 0.80  | 0.24  | 0.29  | -0.10 | 0.21  | -0.33 | 0.15  | -0.19 |
| Overall Frequency | 0.76  | -0.16 | -0.13 | 0.36  | -0.41 | 0.07  | -0.12 | -0.23 |
| Friend Frequency  | 0.73  | -0.54 | -0.12 | 0.12  | -0.14 | -0.06 | 0.25  | 0.23  |
| Age               | 0.69  | -0.39 | 0.27  | -0.21 | 0.36  | 0.35  | -0.05 | -0.05 |
| ID                | 0.42  | 0.64  | -0.30 | -0.45 | -0.19 | 0.23  | 0.18  | 0.00  |
| Family Frequency  | 0.23  | 0.31  | -0.57 | 0.62  | 0.37  | 0.06  | 0.03  | 0.01  |
| √Years Away       | -0.16 | 0.34  | 0.74  | 0.50  | -0.10 | 0.17  | 0.14  | 0.05  |

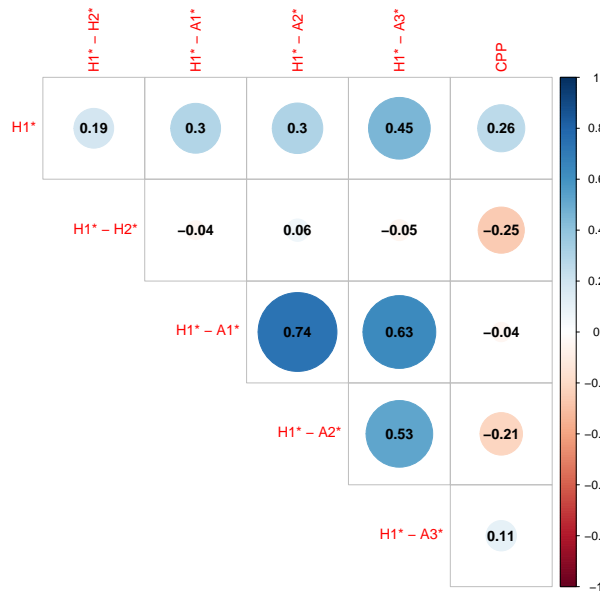


Figure 4: Voice quality correlation matrix

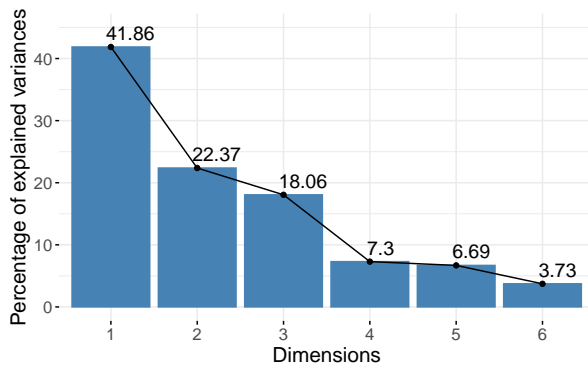


Figure 5: Scree plot for voice quality measures

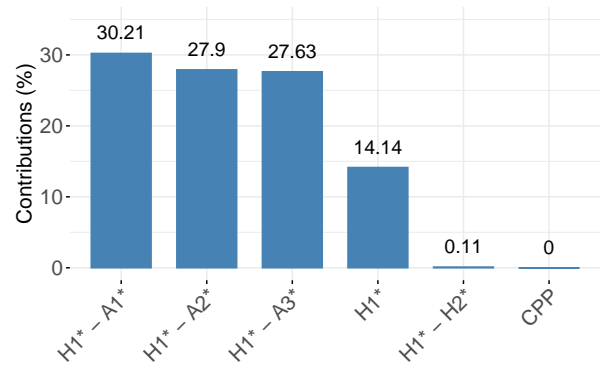


Figure 6: Voice quality measures, Dimension 1

Table 2: Correlation of voice quality measures to PCA dimensions

|           | Dim 1 | Dim 2 | Dim 3 | Dim 4 | Dim 5 | Dim 6 |
|-----------|-------|-------|-------|-------|-------|-------|
| H1* - A1* | 0.87  | -0.08 | -0.25 | 0.23  | 0.08  | -0.33 |
| H1* - A2* | 0.84  | -0.29 | -0.19 | 0.07  | 0.29  | 0.30  |
| H1* - A3* | 0.83  | 0.18  | -0.03 | -0.06 | -0.51 | 0.10  |
| H1*       | 0.60  | 0.30  | 0.61  | -0.38 | 0.19  | -0.08 |
| H1* - H2* | 0.05  | -0.57 | 0.76  | 0.30  | -0.09 | 0.01  |
| CPP       | 0.01  | 0.90  | 0.20  | 0.37  | 0.08  | 0.08  |