

Regression Results

Sunday, December 18, 2016 6:07 AM

Big5 vs TV

```
Deviance Residuals:
    Min      1Q  Median      3Q      Max 
-1.454 -1.255  1.028  1.093  1.275 

Coefficients:
            Estimate Std. Error z value Pr(>|z|)    
(Intercept)  1.49827  0.42537  3.522 0.000428 *** 
Openness     -2.23435  0.43117 -5.182 2.19e-07 *** 
Conscientiousness -0.09590  0.13743 -0.698 0.485298  
Extraversion   0.16967  0.05989  2.833 0.004609 **  
Agreeableness  0.22881  0.07478  3.060 0.002215 ** 
Neuroticism    0.96033  0.19764  4.859 1.18e-06 *** 
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 31994  on 23251  degrees of freedom
Residual deviance: 31902  on 23246  degrees of freedom
AIC: 31914

Number of Fisher Scoring iterations: 4
```

Values vs TV

```
Deviance Residuals:
    Min      1Q  Median      3Q      Max 
-1.459 -1.254  1.031  1.097  1.220 

Coefficients:
            Estimate Std. Error z value Pr(>|z|)    
(Intercept)  0.08429  0.03346  2.519 0.01176 *  
Conservation 0.76931  0.21005  3.663 0.00025 *** 
Openness.to.change 0.15687  0.17520  0.895 0.37058  
Hedonism      1.60849  0.22592  7.120 1.08e-12 *** 
Self.enhancement -0.95200  0.29746 -3.200 0.00137 ** 
Self.transcendence -0.80606  0.17596 -4.581 4.63e-06 *** 
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 31994  on 23251  degrees of freedom
Residual deviance: 31931  on 23246  degrees of freedom
AIC: 31943

Number of Fisher Scoring iterations: 4
```

Needs vs TV

```

Deviance Residuals:
    Min      1Q  Median      3Q     Max
-1.482 -1.256   1.024   1.092   1.282

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
(Intercept) -0.07149  0.09562 -0.748 0.454675
Challenge    0.46933  0.42134  1.114 0.265321
Closeness    0.57366  0.20233  2.835 0.004578 **
Curiosity   -0.70888  0.14061 -5.042 4.62e-07 ***
Excitement   1.92226  1.43610  1.339 0.180724
Harmony      -1.25694  0.31405 -4.002 6.27e-05 ***
Ideal        2.35386  0.67177  3.504 0.000458 ***
Liberty      -4.09799  1.41736 -2.891 0.003837 **
Love         0.04031  0.24065  0.167 0.866980
Practicality 1.56785  0.55232  2.839 0.004530 **
Self.expression 2.33670  0.81397  2.871 0.004095 **
Stability    0.13744  0.14596  0.942 0.346388
Structure    0.37709  0.11042  3.415 0.000638 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 31994  on 23251  degrees of freedom
Residual deviance: 31886  on 23239  degrees of freedom
AIC: 31912

Number of Fisher Scoring iterations: 4

```

Wifi

Big5

```

Call:
glm(formula = Wi.Fi ~ Openness + Conscientiousness + Extraversion +
    Agreeableness + Neuroticism, family = "binomial", data = wifi)

Deviance Residuals:
    Min      1Q  Median      3Q     Max
-1.2174 -1.0659 -0.9968   1.2805   1.4737

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
(Intercept) -0.36893  0.42130 -0.876 0.381195
Openness     -0.70850  0.42641 -1.662 0.096599 .
Conscientiousness -0.16447  0.13897 -1.183 0.236632
Extraversion   0.21763  0.06034  3.607 0.000310 ***
Agreeableness  0.50515  0.07493  6.742 1.57e-11 ***
Neuroticism    0.74068  0.20007  3.702 0.000214 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 31778  on 23251  degrees of freedom
Residual deviance: 31686  on 23246  degrees of freedom
AIC: 31698

Number of Fisher Scoring iterations: 4

```

Values

```
Call:
glm(formula = Wi.Fi ~ Conservation + Openness.to.change + Hedonism +
    Self.enhancement + Self.transcendence, family = "binomial",
    data = wifi)

Deviance Residuals:
    Min      1Q  Median      3Q     Max 
-1.124 -1.062 -1.046   1.298   1.371 

Coefficients:
            Estimate Std. Error z value Pr(>|z|)    
(Intercept) -0.31044   0.03354 -9.256 <2e-16 ***
Conservation -0.12163   0.20996 -0.579  0.5624  
Openness.to.change 0.20057   0.17560  1.142  0.2534  
Hedonism       0.29404   0.22471  1.309  0.1907  
Self.enhancement -0.67763   0.29933 -2.264  0.0236 *  
Self.transcendence 0.02943   0.17637  0.167  0.8675  
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 31778  on 23251  degrees of freedom
Residual deviance: 31770  on 23246  degrees of freedom
AIC: 31782

Number of Fisher Scoring iterations: 4
```

Needs

```
Call:
glm(formula = Wi.Fi ~ Challenge + Closeness + Curiosity + Excitement +
    Harmony + Ideal + Liberty + Love + Practicality + Self.expression +
    Stability + Structure, family = "binomial", data = wifi)

Deviance Residuals:
    Min      1Q  Median      3Q     Max 
-1.338 -1.056 -1.009   1.297   1.550 

Coefficients:
            Estimate Std. Error z value Pr(>|z|)    
(Intercept) -0.42202   0.09645 -4.375 1.21e-05 ***
Challenge     1.49646   0.41748  3.585 0.000338 *** 
Closeness     0.72940   0.20301  3.593 0.000327 *** 
Curiosity    -0.14790   0.14138 -1.046 0.295502  
Excitement   -1.19031   1.44369 -0.824 0.409661  
Harmony      -1.11518   0.31545 -3.535 0.000407 *** 
Ideal         3.41926   0.67093  5.096 3.46e-07 *** 
Liberty       -2.20987   1.42760 -1.548 0.121633  
Love          -0.03702   0.24069 -0.154 0.877757  
Practicality -1.08569   0.55778 -1.946 0.051601 .  
Self.expression 0.62966   0.81520  0.772 0.439877  
Stability     0.10982   0.14624  0.751 0.452648  
Structure      0.05111   0.11132  0.459 0.646170  
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 31778  on 23251  degrees of freedom
Residual deviance: 31681  on 23239  degrees of freedom
AIC: 31707

Number of Fisher Scoring iterations: 4
```

Outdoor seating

Big5

```

Call:
glm(formula = Outdoor.Seating ~ Openness + Conscientiousness +
    Extraversion + Agreeableness + Neuroticism, family = "binomial",
    data = outdoor_seating)

Deviance Residuals:
    Min      1Q  Median      3Q     Max 
-1.4938 -1.2534  0.9871  1.0847  1.2907 

Coefficients:
            Estimate Std. Error z value Pr(>|z|)    
(Intercept) -0.63586  0.41836 -1.520  0.12854  
Openness     -0.07874  0.42335 -0.186  0.85244  
Conscientiousness -0.05313  0.13752 -0.386  0.69926  
Extraversion   0.45492  0.06004  7.577 3.55e-14 *** 
Agreeableness  0.63219  0.07549  8.375 < 2e-16 *** 
Neuroticism    0.60051  0.19799  3.033  0.00242 ** 
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 31942  on 23251  degrees of freedom
Residual deviance: 31754  on 23246  degrees of freedom
AIC: 31766

Number of Fisher Scoring iterations: 4

```

Values

```

Call:
glm(formula = Outdoor.Seating ~ Conservation + Openness.to.change +
    Hedonism + Self.enhancement + Self.transcendence, family = "binomial",
    data = outdoor_seating)

Deviance Residuals:
    Min      1Q  Median      3Q     Max 
-1.366 -1.269  1.061  1.088  1.122 

Coefficients:
            Estimate Std. Error z value Pr(>|z|)    
(Intercept)  0.18788  0.03345  5.617 1.94e-08 *** 
Conservation 0.20446  0.20912  0.978  0.3282  
Openness.to.change 0.42199  0.17548  2.405  0.0162 *  
Hedonism     -0.06604  0.22438 -0.294  0.7685  
Self.enhancement -0.45518  0.29729 -1.531  0.1258  
Self.transcendence 0.02753  0.17610  0.156  0.8758  
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 31942  on 23251  degrees of freedom
Residual deviance: 31934  on 23246  degrees of freedom
AIC: 31946

Number of Fisher Scoring iterations: 3

```

```

Call:
glm(formula = Outdoor.Seating ~ Challenge + Closeness + Curiosity +
    Excitement + Harmony + Ideal + Liberty + Love + Practicality +
    Self.expression + Stability + Structure, family = "binomial",
    data = outdoor_seating)

Deviance Residuals:
    Min      1Q  Median      3Q     Max 
-1.693 -1.251  1.001  1.097  1.369 

Coefficients:
            Estimate Std. Error z value Pr(>|z|)    
(Intercept)  0.06031   0.09579   0.630  0.528942  
Challenge    2.64455   0.43063   6.141 8.20e-10 *** 
Closeness    0.74974   0.20296   3.694 0.000221 *** 
Curiosity    0.07923   0.14109   0.562  0.574416  
Excitement   -3.68035   1.43943  -2.557 0.010564 *  
Harmony      -1.26010   0.31575  -3.991 6.59e-05 *** 
Ideal         3.74188   0.68391   5.471 4.47e-08 *** 
Liberty       -3.11812   1.42413  -2.189 0.028562 *  
Love          0.19909   0.24236   0.821  0.411383  
Practicality -0.73744   0.55093  -1.339 0.180726  
Self.expression 0.68090   0.81768   0.833  0.405006  
Stability     0.39369   0.14679   2.682 0.007320 ** 
Structure     -0.09664   0.11058  -0.874 0.382127  
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 31942 on 23251 degrees of freedom
Residual deviance: 31764 on 23239 degrees of freedom
AIC: 31790

Number of Fisher Scoring iterations: 4
> |

```

Price Range

Big5

```

> test <- multinom(pr2 ~ Openness+Conscientiousness+Extraversion+Agreeableness+Neuroticism, data = price_range)
# weights: 35 (24 variable)
initial value 37422.650340
iter 10 value 21996.182985
iter 20 value 21673.333282
iter 30 value 21660.447736
final value 21660.329179
converged
>
> z <- summary(test)$coefficients/summary(test)$standard.errors
> z
            Openness Conscientiousness Extraversion Agreeableness Neuroticism
1 -0.3676465 1.910436      -0.7105063  0.3355620  0.5972181 1.242664996
2 -1.5632037 3.497441      0.2093761  0.8510233  0.9166562 0.504488548
3 -4.2855149 5.046093      1.1377747  1.7113303  0.6032222 -0.168257945
4 -3.9762629 3.627896      1.2931892  2.5381662  -0.5173911 -0.006073357
> p <- (1 - pnorm(abs(z), 0, 1))^2
> p
            Openness Conscientiousness Extraversion Agreeableness Neuroticism
1 7.131368e-01 5.607715e-02      0.4773902  0.73720120  0.5503618  0.2139913
2 1.180047e-01 4.697446e-04      0.8341546  0.39475644  0.3593228  0.6139181
3 1.823164e-05 4.509370e-07      0.2552146  0.08702015  0.5463609  0.8663804
4 7.000672e-05 2.857407e-04      0.1959456  0.01114351  0.6048832  0.9951542
> |

```

Values

```

> test <- multinom(pr2 ~ Conservation+Openness.to.change+Hedonism+Self.enhancement+Self.transcendence, data = price_range)
# weights: 35 (24 variable)
initial value 37422.650340
iter 10 value 22043.842028
iter 20 value 21720.319322
iter 30 value 21690.056338
final value 21690.007009
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))^2
> p
(Intercept) Conservation Openness.to.change Hedonism Self.enhancement Self.transcendence
1 0.0000000000 0.38426892 0.7334009 0.6270948846 0.3981315245 0.59713880
2 0.0000000000 0.16349155 0.8792894 0.8517219808 0.3101749852 0.2636816
3 0.0000000000 0.85868298 0.6269443 0.8801418968 0.0453527492 0.22635767
4 0.0001994969 0.06739769 0.1130410 0.0822634621 0.0009441169 0.2795870
> |

```

Needs

```

> test <- multinom(pr2 ~ Challenge+Closeness+Curiosity+Excitement+Harmony+Ideal+Liberty+Love+Practicality+Self.expression+Stability+Structure,
data = price_range)
# weights: 70 (52 variable)
initial value 37422.650340
iter 10 value 24371.075691
iter 20 value 22002.588125
iter 30 value 21607.718537
iter 40 value 21597.836987
iter 50 value 21598.10706
iter 60 value 21597.656076
iter 70 value 21597.459493
iter 80 value 21597.392594
iter 90 value 21597.284712
final value 21597.283443
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))^2
> p
(Intercept) Challenge Closeness Curiosity Excitement Harmony Ideal Liberty Love Practicality Self.expression
1 6.946427e-05 0.07351659 0.89072468 0.08010252 0.02531349 0.8472984 0.49057918 0.6355859 0.24783073 6.714931e-02 0.03115578
2 1.30403e-09 0.10394213 0.78028963 0.002551376 0.04722634 0.8083865 0.36317938 0.6313107 0.32482705 2.83657e-05 0.02639157
3 1.140141e-09 0.08014949 0.30964978 0.009559095 0.32040949 0.46807057 0.09075855 0.5147226 0.15210934 7.062676e-07 0.09950920
4 7.46557e-01 0.084435815 0.05838192 0.138713800 0.20743222 0.3586160 0.04698832 0.8507968 0.04711483 5.338286e-04 0.19271602
> Stability Structure
1 0.4237514 0.02681982
2 0.3678595 0.17421377
3 0.3753771 0.67483069
4 0.5285055 0.19084990
> |

```

Ambience

Big5

```

> ambience <- read.csv("C:/Users/Kaustubh/Desktop/Final Project/datasets/ambience.csv")
> View(ambience)
> ambience$Ambience <- factor(ambience$Ambience)
> ambience$ab2 <- relevel(ambience$Ambience, ref="casual")
> test <- multinom(ab2 ~ Openness+Conscientiousness+Extraversion+Agreeableness+Neuroticism, data = ambience)
# weights: 63 (48 variable)
initial value 49116.758202
iter 10 value 30950.095087
iter 20 value 30603.527284
iter 30 value 30578.255332
iter 40 value 30576.025107
final value 30575.829948
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))^2
> p
(Intercept) Openness Conscientiousness Extraversion Agreeableness Neuroticism
classy 6.4075228e-03 0.0003262326 1.669496e-01 0.2623258633
divey 4.241760e-01 0.008801134 4.253861e-01 0.0393322811 6.468721e-05 0.2434923822
hipster 1.696478e-02 0.420948922 4.837492e-01 0.1022193565 8.238882e-01 0.0867484474
intimate 9.240247e-08 0.000324640 3.831763e-01 0.1189764844 8.829271e-01 0.1005380717
romantic 2.834180e-04 0.549513628 5.982009e-01 0.0060100474 2.447126e-01 0.2165279870
touristy 3.812819e-08 0.046568650 5.564291e-01 0.7548278993 9.099216e-01 0.1695856686
trendy 2.913041e-08 0.000494318 9.038582e-06 0.9779895032 4.440460e-01 0.0003917943
upscale 1.001007e-02 0.844658396 1.88275e-02 0.1515068024 2.407622e-01 0.3603594126
> |

```

Values

```

> test <- multinom(ab2 ~ Conservation+Openness.to.change+Hedonism+Self.enhancement+Self.transcendence, data = ambience)
# weights: 63 (48 variable)
initial value 49116.758202
iter 10 value 31200.729477
iter 20 value 30652.298849
iter 30 value 30619.094221
final value 30619.060414
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))^2
> p
(Intercept) Conservation Openness.to.change Hedonism Self.enhancement Self.transcendence
classy 0 0.56859422 0.016992199 8.715803e-03 0.0028535955 0.3709784736
divey 0 0.64890662 0.585484327 1.071281e-03 0.2550920371 0.1795835720
hipster 0 0.01918141 0.588406414 3.946452e-01 0.7200165050 0.1113758757
intimate 0 0.01444774 0.018234677 1.222711e-05 0.0006756959 0.0011876978
romantic 0 0.16922819 0.743904031 7.506012e-01 0.9990549296 0.1387368748
touristy 0 0.06320699 0.102018371 2.141442e-01 0.3087778180 0.1754238791
trendy 0 0.03966807 0.003847142 7.164943e-04 0.051854914 0.0002709344
upscale 0 0.86570870 0.021394115 7.134557e-01 0.0034919105 0.5042931085
> |

```

Needs

```

> test <- multinom(ab2 ~ Challenge+Closeness+Curiosity+Excitement+Harmony+Ideal+Liberty+Love+Practicality+Self.expression+Stability+Structure,
+ data = attire)
# weights: 126 (104 variable)
initial value 49116.758202
iter  10 value 34631.027516
iter  20 value 31518.019279
iter  30 value 30606.534846
iter  40 value 30501.884560
iter  50 value 30499.902469
final value 30499.632263
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))^2
> p
      (Intercept) Challenge Closeness Curiosity Excitement Harmony Ideal Liberty Love Practicality
classy        0.4750403e-01 3.354964e-05 0.05530699 0.38986719 0.06523386e-05 0.021678866 0.24233119 0.0871350 2.676498e-04
divey       0.1099096e-02 0.221999e-02 0.04682349 0.00356242 0.695894434 0.005671574 0.77311473 0.03166611 9.739657e-02
hipster     0.1578666e-01 2.922829e-01 0.23251829 0.49017336 0.793210865 0.019544883 0.02141707 0.77787163 1.084083e-01
intimate    0.5.635990e-01 1.790604e-01 0.15477669 0.37052724 0.113201765 0.98843922 0.36516689 0.19319269 2.194409e-01
romantic   0.8.037211e-03 9.050265e-01 0.07318719 0.03586851 0.739631972 0.49264054 0.17233527 0.22976520 1.361332e-01
touristy    0.6.368174e-01 4.855697e-01 0.44665990 0.62374189 0.097644892 0.735744699 0.33621866 0.70943890 2.494007e-01
trendy      0.3.728012e-01 1.320721e-02 0.77651165 0.27888925 0.002974902 0.015979242 0.12776244 0.16941683 1.555370e-07
upscale     0.3.286344e-01 2.346363e-02 0.31756006 0.58211927 0.054062246 0.024385637 0.67310845 0.01922198 1.133052e-01
                           Self.expression Stability Structure
classy       0.2698808 0.625403974 0.84434178
divey       0.3606035 0.898273475 0.20658050
hipster     0.5452276 0.004407248 0.8124839
intimate    0.137211e-01 0.44665990 0.37052724
romantic   0.9349264 0.623931165 0.95321487
touristy    0.3485848 0.413597725 0.40734901
trendy      0.7198652 0.395455910 0.09071137
upscale     0.1617033 0.186308740 0.22486630
>

```

Attire

Big5

```

> attire$at2 <- relevel(attire$Attire, ref = "casual")
> test <- multinom(at2 ~ Openness+Conscientiousness+Extraversion+Agreeableness+Neuroticism, data = attire)
# weights: 28 (18 variable)
initial value 32234.116485
iter  10 value 6806.304183
iter  20 value 6708.106674
iter  30 value 6699.973423
iter  40 value 6695.675402
iter  50 value 6695.561721
iter  60 value 6695.476144
iter  70 value 6695.474028
iter  70 value 6695.473972
iter  70 value 6695.473972
final value 6695.473972
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))^2
> p
      (Intercept) Openness Conscientiousness Extraversion Agreeableness Neuroticism
0  9.973001e-01 1.528932e-02  4.772212e-01 6.451209e-01  0.3103533  0.9534133
dressy 1.400657e-12 8.187648e-05  1.364821e-05 1.330676e-09  0.6854404  0.0241829
formal 5.463665e-01 2.087985e-01  5.986517e-01 4.487233e-01  0.4136995  0.4751497
>

```

Value

```

> test <- multinom(at2 ~ Conservation+Openness.to.change+Hedonism+Self.enhancement+Self.transcendence, data = attire)
# weights: 28 (18 variable)
initial value 32234.116485
iter  10 value 6829.739156
iter  20 value 6799.095829
iter  30 value 6741.917847
iter  40 value 6727.530928
iter  50 value 6725.879647
iter  60 value 6725.303752
final value 6725.289710
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))^2
> p
      (Intercept) Conservation Openness.to.change Hedonism Self.enhancement Self.transcendence
0  0.05536373 0.24107476 3.616538e-02 2.752391e-01 0.0432761
dressy 0.01665412 0.01642118 2.840314e-08 2.564135e-06 0.5026333
formal 0.84198212 0.36169212 3.237860e-01 4.177060e-01 0.8643920
>

```

Noise

Big5

```

> test <- multinom(nL2 ~ Openness+Conscientiousness+Extraversion+Agreeableness+Neuroticism, data = noise_level)
# weights: 35 (24 variable)
initial value 37422.650340
iter  10 value 20588.625678
iter  20 value 19738.413245
iter  30 value 19643.003919
final value 19642.772458
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))^2
> p
      (Intercept) Openness Conscientiousness Extraversion Agreeableness Neuroticism
0  0.7801474537 9.608397e-01 0.01973834 0.3120522 0.3151188 0.1204942
average 0.3793511383 8.208926e-04 0.66822665 0.7054618 0.1007099 0.6066395
loud 0.4729289313 6.476336e-02 0.92777861 0.4677742 0.5248239 0.9837449
quiet 0.0008421029 8.862438e-06 0.79363227 0.0749587 0.7472358 0.3592812
>

```

Values

```

> test <- multinom(al2 ~ Conservation+Openness.to.change+Hedonism+Self.enhancement+Self.transcendence, data = noise_level)
# weights: 35 (24 variable)
initial value 37422.650340
iter 10 value 22163.653868
iter 20 value 19729.179526
iter 30 value 19641.973148
final value 19641.938835
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))*2
> p
      (Intercept) Conservation Openness.to.change Hedonism Self.enhancement Self.transcendence
0    1.690508e-08  0.09197946   0.1878625  0.037818588   0.26684903   0.0002506291
average 0.000000e+00  0.73334714   0.5339895  0.012366053   0.17535447   0.3799286006
loud   0.000000e+00  0.97548018   0.8354862  0.180084828   0.31369469   0.5382698497
quiet  0.000000e+00  0.95529100   0.2382401  0.002944304   0.07795497   0.2071202553
> |

```

Alcohol

Big5

```

> test <- multinom(al2 ~ Openness+Conscientiousness+Extraversion+Agreeableness+Neuroticism, data = alcohol)
# weights: 21 (12 variable)
initial value 24900.047523
iter 10 value 21404.545778
final value 21250.050091
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))*2
> p
      (Intercept) Openness Conscientiousness Extraversion Agreeableness Neuroticism
full_bar  0.18985045  0.06395337   1.797046e-09 5.157861e-02 2.214747e-05 6.033449e-07
none     0.07733514  0.08265247   2.150047e-08 2.321476e-12 2.220446e-16 1.321944e-09
> |

```

Values

```

> test <- multinom(al2 ~ Conservation+Openness.to.change+Hedonism+Self.enhancement+Self.transcendence, data = alcohol)
# weights: 21 (12 variable)
initial value 24900.047523
iter 10 value 21402.329417
final value 21355.050628
converged
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))*2
> p
      (Intercept) Conservation Openness.to.change Hedonism Self.enhancement Self.transcendence
full_bar      0  0.15852379  0.28526372 1.721866e-05   0.29000431  1.155827e-02
none        0  0.08786325  0.00092902 6.625502e-06   0.02946855  5.472374e-05
> |

```

Needs

```

> test <- multinom(al2 ~ Challenge+Closeness+Curiosity+Excitement+Harmony+Ideal+Liberty+Love+Practicality+Self.expression+Stability+Structure,
data = alcohol)
# weights: 26 (26 variable)
initial value 24900.047523
iter 10 value 21575.377770
iter 20 value 21249.450929
iter 30 value 21246.985987
final value 21246.981888
converged
>
> z <- summary(test)$coefficients/summary(test)$standard.errors
> p <- (1 - pnorm(abs(z), 0, 1))*2
> p
      (Intercept) Challenge Closeness Curiosity Excitement Harmony Ideal Liberty Love Practicality
full_bar      0 1.032399e-02 1.814166e-02 1.051468e-05 0.005651415 9.744093e-04 0.84200948 0.79083972 0.185673888 1.565637e-11
none        0 5.12616e-06 4.115292e-05 7.584467e-05 0.001151858 4.407532e-07 0.02256601 0.08564483 0.005082259 5.301685e-09
      Self.expression Stability Structure
full_bar      0.001946208 3.745512e-04 0.6526918
none        0.054610256 7.295049e-05 0.4912074
> |

```