

Quadratic Assignment Procedure (QAP)

QAP can be used to assess if within your cultural group there are subgroupings based on such variables as age, race, occupation, etc.

You will first locate and divide the original pile sort data by the subculture variable you want to test (e.g. women vs. men). Then run QAP on the divided pile sort data files.

1. Divide the pile sort data into two files:

Use the metadata for your pile sort data to determine which respondents are male and which are female. Divide the pile sort accordingly, into two separate .txt files.

In this exercise we will use the Green Behaviors domain. The file containing all the pile sorts for that domain is called ALLPS.txt. From the ALLPS.txt file, we have already created two files: MENPS.txt and WOMENPS.txt.

2. Import each pile sort data separately:

You must know the number of respondents and how many items were in the pile sort test.

Each output for the AGPROX should be named something different or else ANTHROPAC will write over one with the other. Use MAGPROX and WAGPROX for men and women respectively.

For each pile sort data set, run the following procedure:

Data > Import > Pile sort

Input the first pile sort data set: WOMENPS.TXT or MENPS.TXT

Enter number of items in the pile sort

Enter number of participants

Enter the label data file: 85LABELS.TXT

Allow items more than once: NO

Allow missing items: NO

Label aggregate proximity matrices as follows: WGRNAPX for WOMENPS.TXT and MGRNAPX for MENPS.TXT.

You should now have two AGPROX files created from the divided ALLPS.TXT data.

3. Run the two AGPROX through QAP

Tools > QAP > Correlation

Data matrix: WGRNAPX

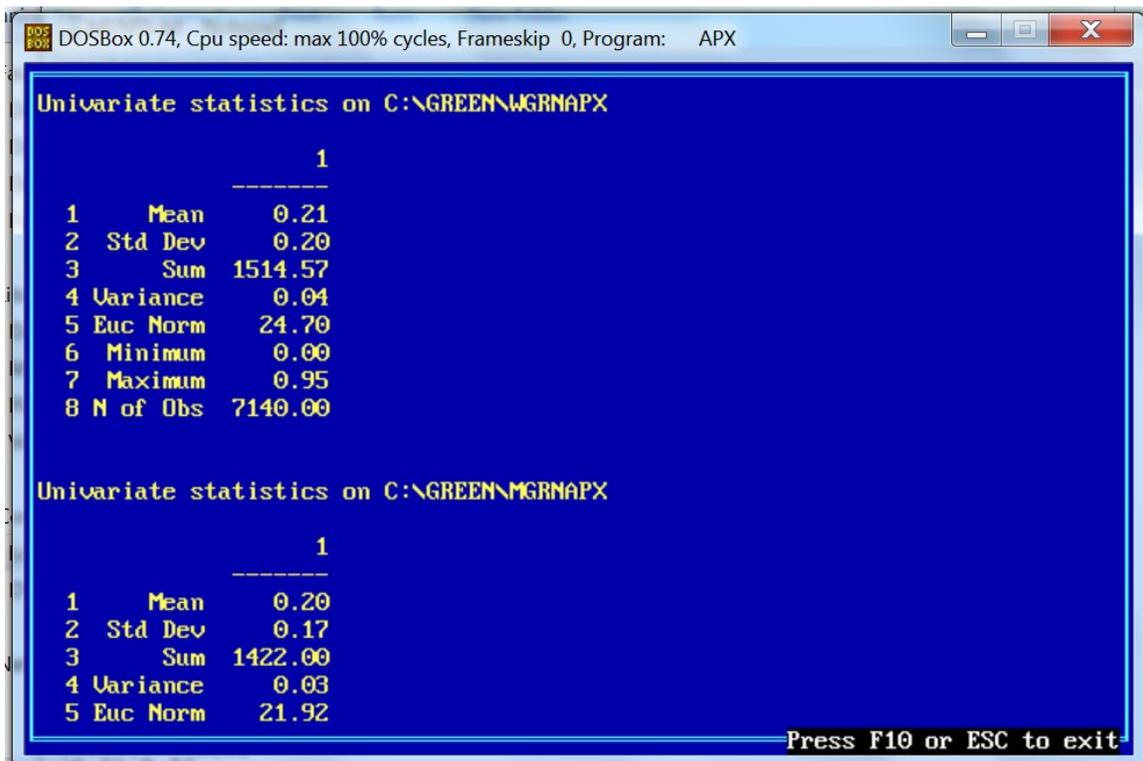
Structure Matrix: MGRNAPX

Permutations: 500

Treat Diagonal as valid: NO

Random number seed: [LEAVE DEFAULT]

ANTHROPAC produces univariate statistics for each matrix.



DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: APX

```
Univariate statistics on C:\GREEN\WGRNAPX
      1
-----
1  Mean      0.21
2  Std Dev   0.20
3  Sum       1514.57
4  Variance  0.04
5  Euc Norm  24.70
6  Minimum   0.00
7  Maximum   0.95
8  N of Obs  7140.00

Univariate statistics on C:\GREEN\MGRNAPX
      1
-----
1  Mean      0.20
2  Std Dev   0.17
3  Sum       1422.00
4  Variance  0.03
5  Euc Norm  21.92

Press F10 or ESC to exit
```

ANTHROPAC determines the correlation between these matrices. That is, how often do women place an item in the same pile compared to men. Therefore, it provides information on the correlation of the two matrices after the QAP analysis is completed. [NEXT PAGE]

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: APX

CORRELATION    MATCHES
Observed value: 0.825    0.018
Average:        0.001    0.006
Standard deviation: 0.020    0.002
Proportion as large: 0.000    0.000
Proportion as small: 1.000    1.000

Hubert's gamma: 498.778

Elapsed time: 3 seconds. 1/26/2015 10:36 PM.
ANTHROPAC 4.983/X Copyright 1985-2002 by Analytic Technologies.

Press F10 or ESC to exit
```

The proportion as large output is essentially the p-value. It indicates out of the 1000 permutations how often you generated a correlation better than your original .825. If the proportion as large is below 0.05, then the probability of randomly generating the original correlation (.825) is very low. i.e. you wouldn't expect the observed correlation by chance. The .825 indicates a strong correlation, suggesting that men and women put the same items in the same piles most of the time.