

Assignment #4 (February 20)

Part A

1. Using the POLICY network of director interlocks among 12 leading policy-planning organizations, compute a non-metric multidimensional scaling analysis using the `TOOLS > MDS > NON-METRIC MDS` command. Be sure to treat your data as similarities. Print a copy of the MDS map of the POLICY network.
2. Compute a hierarchical cluster analysis of the POLICY network using the `TOOLS > CLUSTER > HIERARCHICAL` command. Again, be sure to treat your data as similarities. Print off a copy of the histogram of the cluster analysis.
3. Using the results of the cluster analysis, return to your MDS map of the POLICY network and, using a pen or pencil, draw concentric contour lines around nodes belonging to the same cluster as shown on page 163 of Scott. Continue until you have the organizations grouped into four clusters.
4. Give a brief summary description of the network topology revealed in your analysis.

Part B

1. One of the sample datasets distributed with the Ucinet program is Davis's Southern women network of 18 women and their (co)attendance at 14 social events. First, extract a square woman-by-woman matrix from the woman-by-event network using the `DATA > AFFILIATIONS` command and selecting ROW as the mode you want to extract. Other parameters can be left at their default. Name the output network WOMEN.
2. Compute a non-metric multidimensional scaling analysis for the WOMEN network similar to the one you did in Part A, using the `TOOLS > MDS > NON-METRIC MDS` command. Be sure to treat your data as similarities. Print a copy of the MDS map of the WOMEN network.
3. Compute a hierarchical cluster analysis of the WOMEN network using the `TOOLS > CLUSTER > HIERARCHICAL` command. Again, be sure to treat your data as similarities. Print off a copy of the histogram of the cluster analysis.
4. Using the results of the cluster analysis, return to your MDS map of the WOMEN network and, using a pen or pencil, draw concentric contour lines around nodes belonging to the same cluster as you did in Part A. This time, to avoid having to draw too many detailed lines, treat any women who enter into the same cluster at an average density level of *less than* 1.0 event apart as belonging within the same contour line. (For example, Frances enters into the largest cluster at a density level of 4.0, while Eleanor enters the same cluster at a density level of 3.3968, so group them within the same contour line. Continue until you have the women grouped into four clusters.
5. Give a brief summary description of the network topology revealed in your analysis.