COMM 645, LAB 3: DUE SEPTEMBER 26, 2012

Please e-mail your lab to comm645@ognyanova.net before 2pm on Wednesday.

In this assignment you will have to demonstrate that you understand similarities, positions and equivalence in networks. Lab 3 is based on the Camp 92 data collected by Steve Borgatti, Russ Bernard and Bert Pelto in 1992 at the NSF Summer Institute for Ethnographic Research Methods. You can find a description of the data provided by Analytic Technologies at the end of this document. The dataset itself is included in your UCINET folder – and available for download on Blackboard.

Your assignment consists of the following:

1. Use the campnet data file. Symmetrize the network.
2. Visualize the network in NetDraw. Load the campattr attribute file. Change the shape of nodes to correspond to role, and color them according to gender.
3. Try to visually identify cliques and structurally equivalent nodes (no need to include this in the written report).
4. Use UCINET to identify cliques in the network. In your report, include and interpret the clique participation scores and the actor-by-actor clique co-membership along with its hierarchical clustering diagram.
5. Use UCINET to identify two factions in the network. In your report, include and interpret the grouped adjacency matrix and the density table.
6. In a few sentences, explain the difference between bottom-up approaches (such as identifying cliques) and top-down approaches (such as identifying factions).
7. Use UCINET to calculate structural equivalence via profile similarity for the network. Select a similarity measure and explain how it is calculated. Which actors in the network are most structurally similar? You can also visually examine this by visualizing the resulting structural equivalence matrix in NetDraw and adjusting the line width of ties based on relationship strength.

Your report from this lab should be formatted as a mini research paper. Include Methods (what you did), Results (what you discovered) and Discussion (what it all means). Follow APA guidelines in your writing.

Paste all relevant excerpts from UCINET output in your report, highlighting the information that you've mentioned in the text of the document. In your discussion section, consider the role actor attributes may play in the formation of network structures.

Camp Data Description (Analytic Technologies)

Interactions among 18 people participating in a workshop (including 4 instructors). Network data were collected at 2 points in time. There are also some attribute data.

Network Data

There are 2 datasets available. The main dataset is called CAMP92 and consists of 2 18x18 matrices representing 2 points in time. The data indicate each person's rank ordering of everyone else in terms of how much time they spent with them. A "1" in cell X(i,j) indicates that person i said they spent the most time with person j, and "17" indicates that i says they spent the least time with j.

CAMP92

Week2. These are the rank orders collected at the end of week 2 of the 3-week workshop
Week3. These are the rank orders collected at the end of week 3

A second dataset is called CAMPNET, and is simply a dichotomized version of the Week 3 data. In CAMPNET, there is a "1" for xij if person i listed person j as one of their top 3 interactors.

CAMPNET

Dichotomized version week 3 showing only top 3 choices for each respondent

Attribute Data

The attribute data consist of the gender and role of each actor. Gender was coded 1 for Female and 2 for male. Role referred to whether a person was a workshop participant (coded 1) or and instructor (coded 2). A third variable called Combo is coded 1 for female participants, 2 for male participants, and 3 for instructors (who were all male).

CAMPATTR

18x3 matrix with columns Gender, Role and Combo

Background

The Camp data were collected by Steve Borgatti, Russ Bernard and Bert Pelto in 1992 at the NSF Summer Institute for Ethnographic Research Methods. This was a 3-week workshop in which all the participants and instructors were housed at the same motel and spent a great deal of time together. The participants were all faculty in Anthropology except Holly, who was a PhD student.