Looming Conflict: A Sampson Monk Network Comparison

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Abstract

Samuel Sampson in 1969 recorded the social interactions among a group of monks at 3 different times while he lived at the cloister. During his stay, a political crisis occurred after the 3 surveys & four monks were expelled with voluntary attrition ensuing it.

Research Questions: What are the differences between the 1st & 3rd surveys? Could we see the tension between these monks based on their "liking" networks?

Methods

Each monk was asked if he had positive/negative relations to each of the other monks. Each monk ranked only his top three choices (or four, in the case of ties) on "liking" and "disliking".

I compared both Time 1 & Time 3 Networks repeatedly comparing them with a simulated null network. There is a significant amount of transitivity & betweennness centrality for both times.

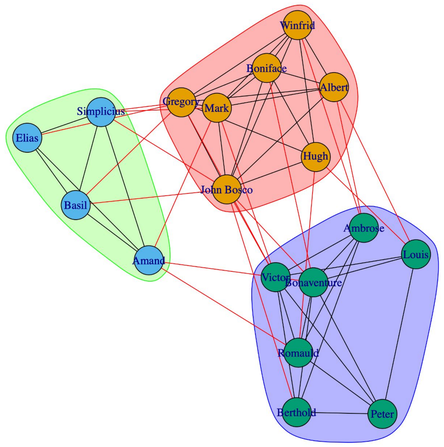
Next, I compared the results of each network to each other and there is difference between each measure between T1 & T3. Also they are correlated, which isn't surprising (p(f(perm) >= f(d)): 0).

Results

The graph on the right is the aggregated liking/disliking network from all 3 times. It uses ward.D clustering method that shows 3 distinct groups that Sampson labelled Young Turks (YT, Red), Loyal Opposition (LO, Blue), & Outcasts (O, Green).

Overall in Order:

- Brokerage: John Bosco (YT), Bonaventure (LO), Victor (LO), & Gregory (YT)
- Between Centrality: John Bosco (YT), Bonaventure (LO). JB is the go-to monk for the Young Turks. Bona is like a gatekeeper to the less connected Loyalists
- Power: JB & Victor
- Status: JB & Victor. Gregory was ousted eventually and John Bosco wasn't. This might be why



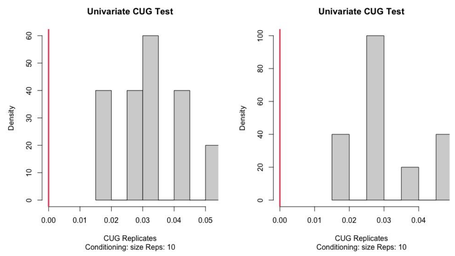
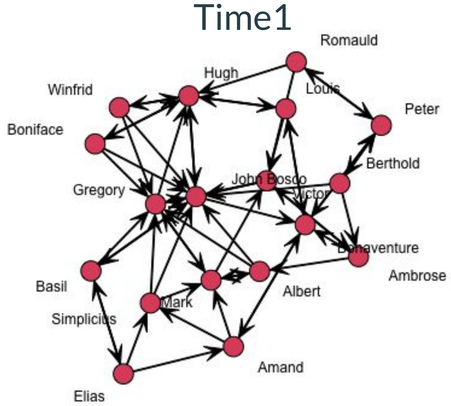
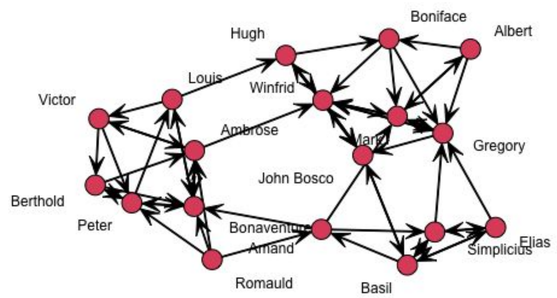


Fig 2. Betweenness Cent.

Time1



Time 3



Above, one can see the structural holes form as the monks clustered into their factions from T1 to T3. Notice how the clusters correspond with the 3 in the aggregated graph above. Transivity for this study wasn't able to reject the null, but we can see more transivity in T3 than T1 (0.26, 0.43). Reverse for intransitive triads, (95, 69). Betweenness centrality (Fig 2)increase between the intervals. All pointing to a impending conflict.

Discussion

One would assume with how established the LO were vs the other groups, this tension would be about them tamping down opposition & maintaining the status quo. However, the top YT are actually more connected and central than the top LO. This actually makes sense in why the crisis occurred. The YT actually have power & connections that force the tension to a head. The intransivity found supports this. The betweenness centralitzation speaks to the breakdown in community & increased factionization.

Conclusions

The differences found in the two time intervals like transivity & betweenness centrality in the like/dislike network of the Sampson monks foreshadow the conflict that occurred after.

Future Research

There were other measures captured in the surveys besides like/dislike. It would be interesting to see if the conflict could be foreshadowed in these other measures' networks. Also, the outcast monks were more connected and powerful than expected & exploring this further would be interesting.

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