

# Rated-R Language: Contextual Factors of Taboo Word Use Within Fictional Movies Using Networks



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## Background

- Swearing occurs frequently in daily conversation & typically conveys strong emotions (Jay, 2000; Jay & Janschewitz, 2007)
- Many factors influence when/how/why swears are used, such as gender
  - Males swear more frequently & use stronger swears; males & females both swear more in same-sex groups (Jay, 2000; Thelwall, 2008)
- Media representations are internalized by viewers and can perpetuate negative stereotypes (Appel & Weber, 2021)

**Current Study:** Leveraged Social Network Analysis (SNA) to examine how the structure and patterns of taboo-language use differ from typical language use, focusing on gender dynamics

### Research Questions

- How does the structure of taboo interaction networks differ from the overall network of movie interactions?
- How does gender interact with graph type (i.e., overall vs. taboo interaction networks) in predicting measures of character importance?

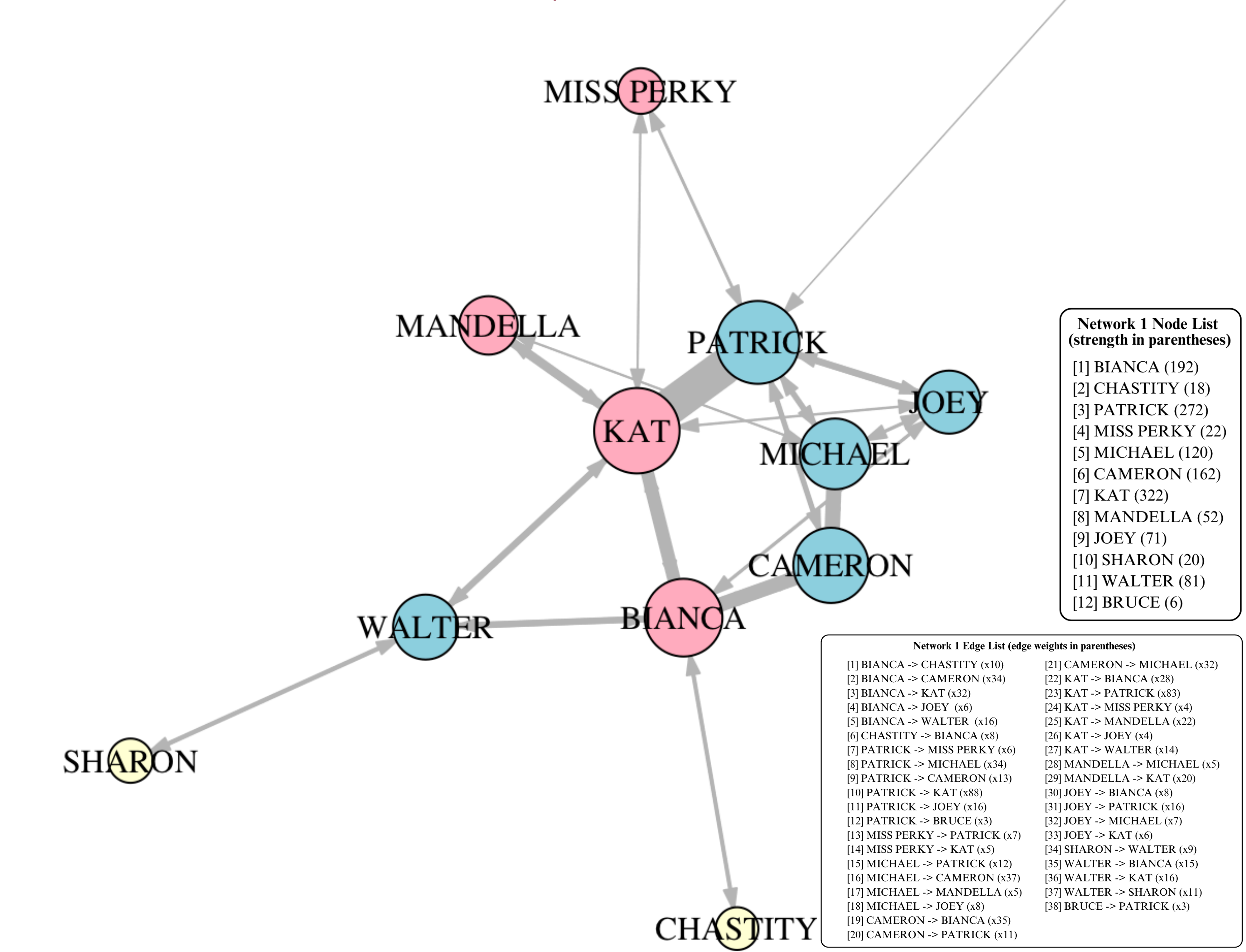
## Methods

- Data: Cornell Movie-Dialog Corpus, commonly used to analyze conversations (Danescu-Niculescu-Mizil & Lee, 2011)
- Set of 92 taboo words from a prior norming study (Janschewitz, 2008)
- Movie transcripts used to create 2 networks (**graph type:** speech freq. vs. swear freq.) for the fictional characters in each movie
  - Removed movies with no taboo language (final sample = 576)
  - On average, each movie used ~25 taboo words (SD=27.21)
- Node-level (character-level) & network-level (movie-level) indices were calculated for each movie

| Index Category | Index                        | Description  |
|----------------|------------------------------|--|
| Network-level  | Number of edges (lines)      | The number of edges or lines in a network  |
| Network-level  | Number of nodes (characters) | The number of nodes or characters in a network   |
| Network-level  | Density                      | The proportion of present edges or lines from all possible edges or lines in the network   |
| Network-level  | Reciprocity                  | The proportion of reciprocated ties or edges for a directed network  |
| Node-level     | Strength (weighted degree)   | The sum of edge weights connected to a node<br>A measure of node importance; How frequently a node lies on the shortest path between any 2 nodes in the network; High betweenness indicates high influence in a network (based on flow of information) |
| Node-level     | Betweenness                  |  |
| Node-level     | Closeness                    | Centrality based on distance to others in the graph  |

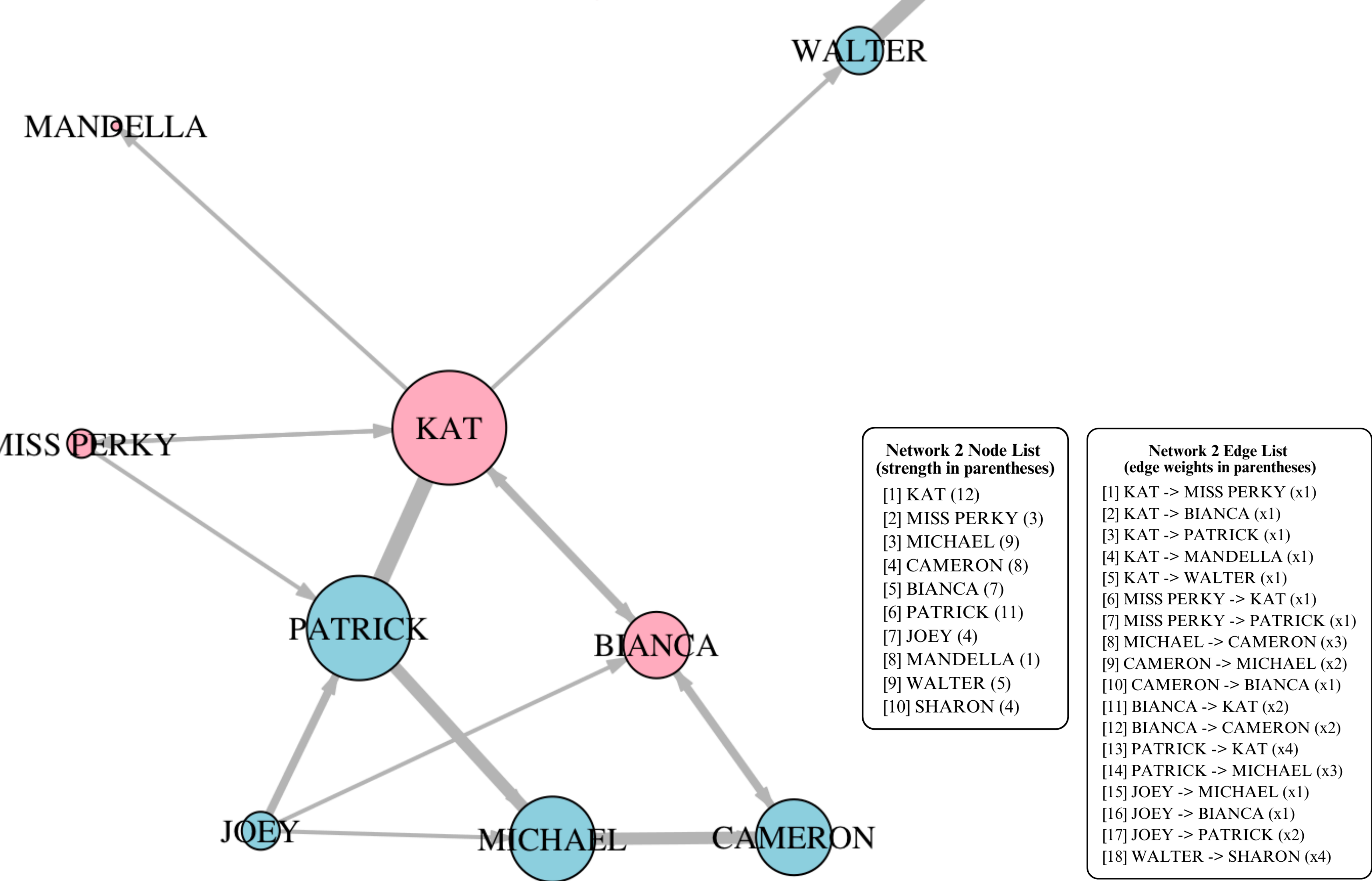
### 10 Things I Hate About You

#### Network 1: Speech Frequency



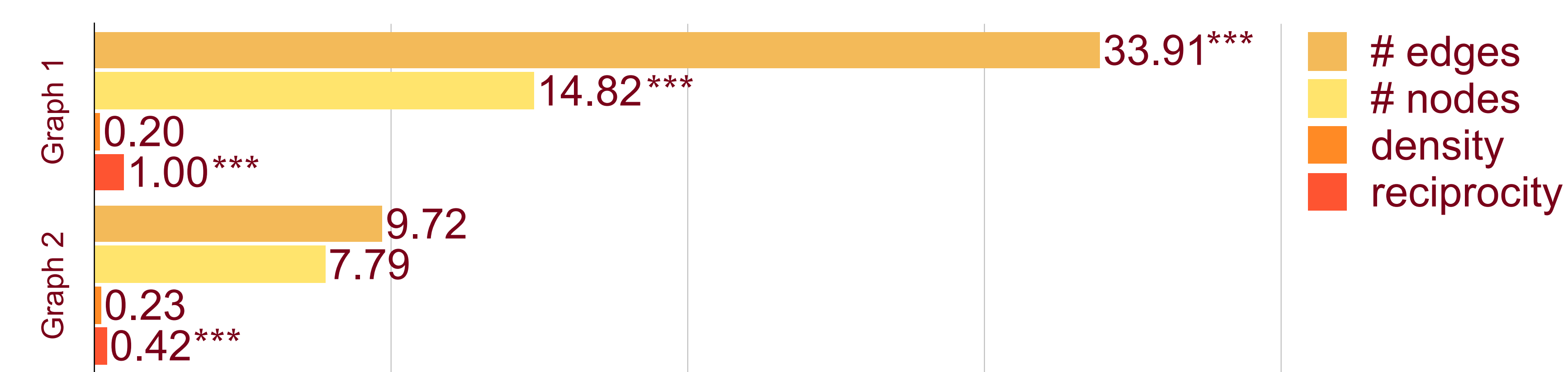
### 10 Things I Hate About You

#### Network 2: Swear Frequency

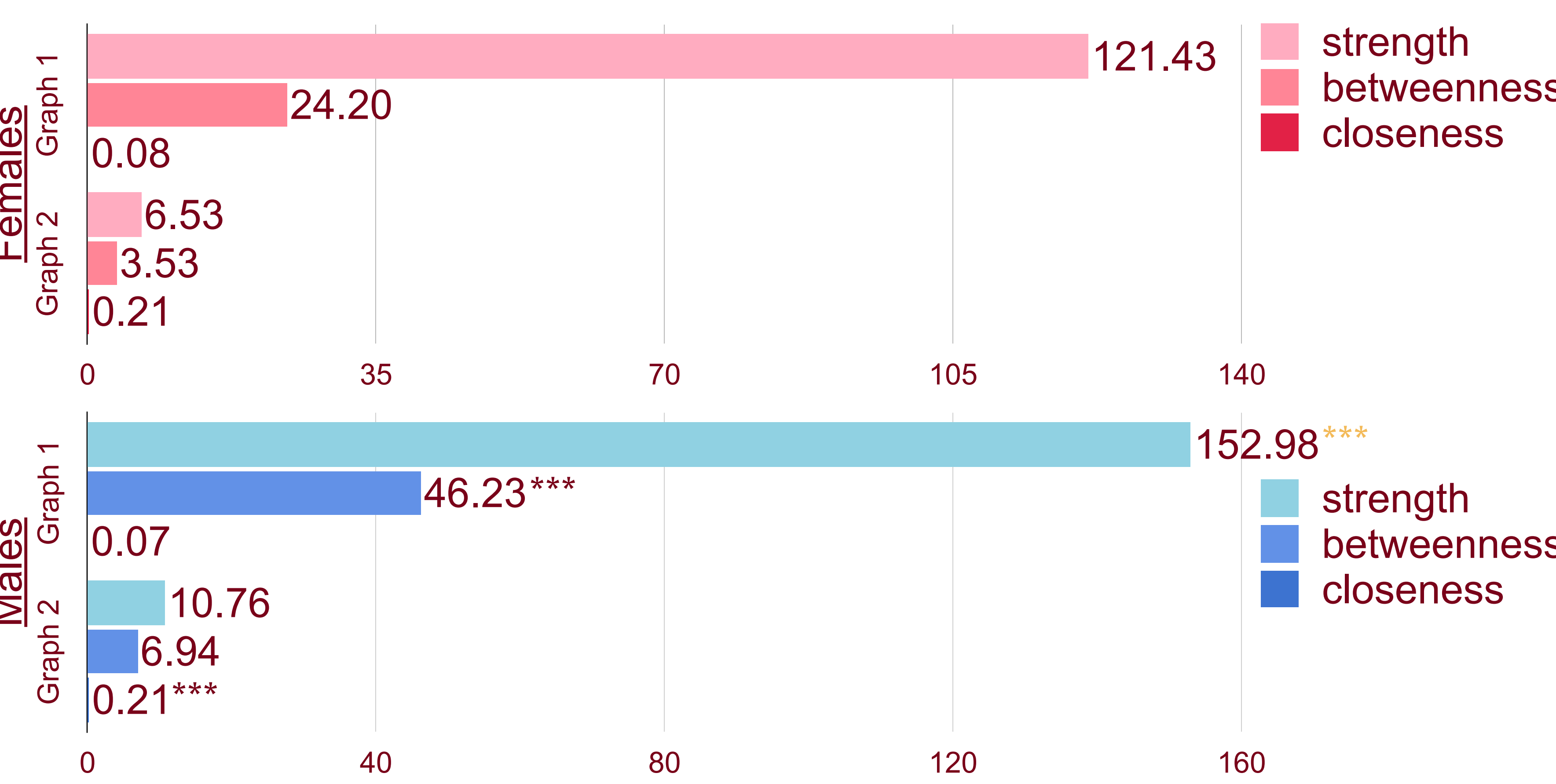


## Results

### RQ1: Network-level Differences



### RQ2: Node-level Differences



## Discussion

- Taboo-interactions involved drastically fewer dialogue exchanges, participating characters, and swear reciprocation
  - Taboo networks are more dense = greater interconnectivity between swearers (& fewer weak ties)
- Males had more overall lines, used more swears, and were more central
  - They sit at crucial network intersections and broker the spread of information (especially taboo information) between characters
  - Male characters have disproportionately been given more central movie roles, allowing them to possess more power in their network positions (control of information spread) and movie roles (character importance to the narrative)
- Future work should further investigate gender representation and power in fictional narratives, control for other conversational variables (e.g., relationship type, physical setting), and examine other linguistic styles indicative of gender imbalances (e.g., hostility, self-disclosure)

## References

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