



# Will Ego's Level of Closeness and the Frequency of Speaking with their Alters Influence their Decision to Vote?

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## Introduction

With a major election approaching quickly, voters will decide whether they will participate this year or not. If policies, politicians, or parties cannot get people out to vote, what can? According to a research study in the Netherlands, social networks **can** influence a person's voting behavior (Nieuwbeerta & Flap).

Organizations even use a strategy to help get people out to vote called **trusted messengers**. The idea is a person from the community would walk door to door to talk to voters every few months to build a relationship and encourage people to vote. With this strategy, organizations hope voters will be more willing to vote the closer and the more often they speak to this trusted messenger.

Applying a similar idea of the trusted messenger, this project will answer if people would be more likely to vote based on their **level of closeness** and the **frequency of talking** to people in **their own networks**.

## Methodology

**Research Question:** How would the frequency of Ego speaking to the Alters in their network about the government and politics and their relative closeness influence the Ego's decision to vote?

**Null Hypothesis:** Ego speaking to Alters in their network more often and their level of closeness will **NOT** influence Ego's decision to vote.

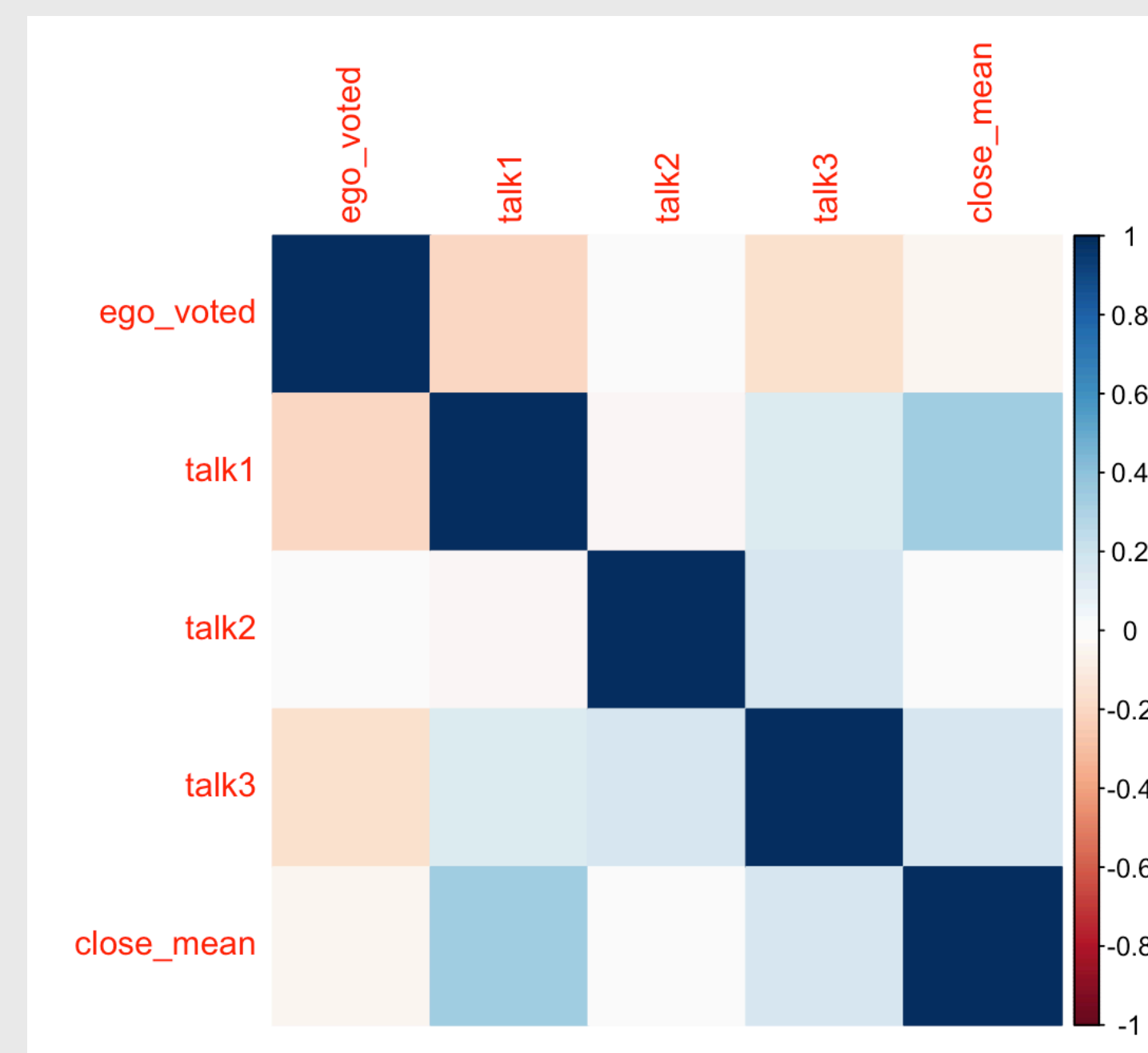
**Alternative Hypothesis:** Ego speaking to Alters in their network more often and their level of closeness **WILL** influence Ego's decision to vote.

**Network Analysis:** Egocentric

**Data:** 2006 American National Election Studies Pilot Questionnaire (Post Election) - N = 675 and the interviews were completed via telephone

- **Explanatory variables:** frequency of talking to alters and ego's closeness average to their alters
- **Response variables:** whether they voted or not
- **Control variables:** age

## Visualizations



Before starting my analysis, I wanted to visualize my data with a heat map to understand how the frequency of talking and the closeness average affect Ego's decision to vote. Talking to Alter 1 & 3 seems to have an effect while the other two do not seem to have an effect.

## Best Model

Variable	Level	Importance	Estimate	Std.error	P.Value
(Intercept)			0.0535500	1.3610269	0.96862
talk1			-0.0089884	0.0034690	0.00957
talk2			0.0027957	0.0037398	0.45472
talk3			-0.0072635	0.0034411	0.03479
close_mean			0.3096276	0.2937423	0.29185
ego_age			0.0348428	0.0161835	0.03132

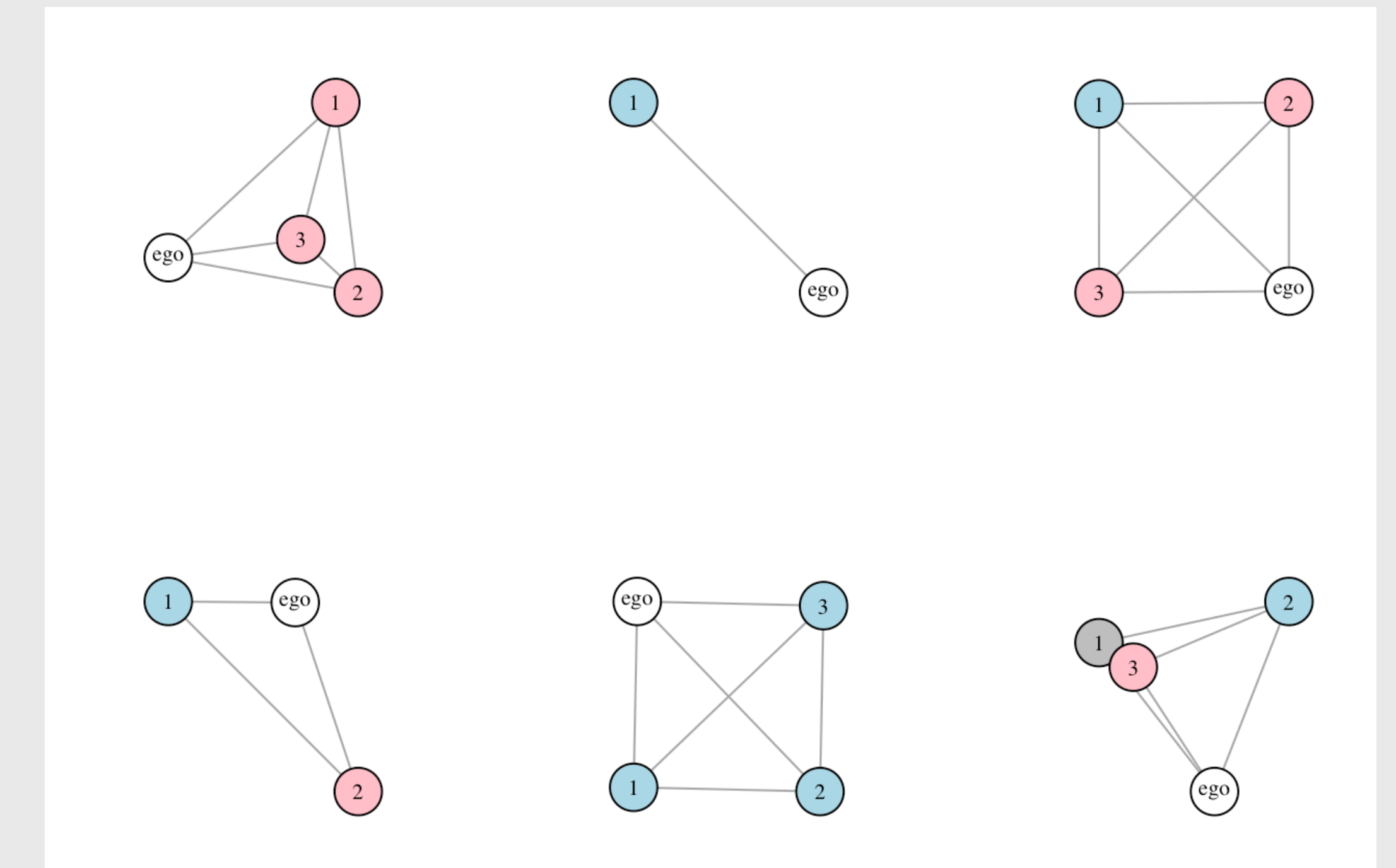
Goodness-of-Fit: AIC: 143.9 , Deviance : 131.9 , Null Deviance: 151.4

An egocentric network analysis differs from other network analyses since learning information from a plotted egocentric network is more difficult. Thus, I had to use **logistical regression** to answer my research question. Above I have the best model (out of 4) with the lowest AIC. This model only had one control variable: **age** (which is also a significant predictor for voting). Based on the model, I can answer the hypothesis.

We can **reject** the null hypothesis in terms of the talking frequency for the most part. The frequency of talking for Alter 1 and Alter 3 is significant and surprisingly affects Ego's decision to vote **negatively**. Though, it should be mentioned the frequency of talking to Alter 2 did not affect Ego's decision to vote.

However, we **fail to reject** the null hypothesis for Ego's average closeness to their alters. Based on my data, the average closeness to the alters hardly affects Ego's decision to vote in the election.

## Ego Network



Here is one egocentric network model I plotted for my project. The networks are showing the different political parties of the alters that the Egos were talking to about government/politics. Blue represents **Democrats**, red represents **Republicans**, and grey represents other parties.

## Conclusion

In conclusion, this analysis mostly **supports** the idea that the frequency of talking can impact the voters' likelihood to vote, though surprisingly **negatively** as it was significant for Alter #1 and Alter #3.

However, this analysis does **not support** the hypothesis that the ego's average closeness affects their likelihood of voting.

Another thing important to note is age was a very significant predictor of voting as well. As age increases, the likelihood of voting increases.

## Next Steps

The next step for this project would be to use alter attributes as predictors. Two predictors I created for this project were based on party diversity and the diversity of interest (in politics and the government). Based on what I gathered quickly from my data, there was no significance for either new predictor. If I were to continue, I would try to create other new predictors to understand if they affect an Ego's decision to vote.

## References

Paul Nieuwbeerta, Henk Flap, *Crosscutting social circles and political choice: Effects of personal network composition on voting behavior in The Netherlands*. [https://doi.org/10.1016/S0378-8733\(00\)00029-0](https://doi.org/10.1016/S0378-8733(00)00029-0).