Social and Information Networks

Tutorial #3: Social Influence

University of Toronto CSC303

Winter/Spring 2022

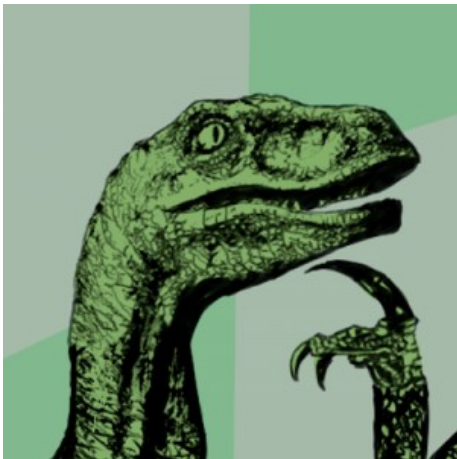Ian Berlot-Attwell

Week 4: Jan 31- Feb 4 (2022)

Today's agenda

In lecture we've covered Chapter 4 of the textbook looking at Selection and Social Influence.

Today:

- Questions from Lecture
- Accessing NetLogo remotely
- Examples of Selection vs. Social Influence
- Quercus Quiz

Questions?

Accessing NetLogo remotely

Instructions on various ways to remotely access a graphical interface for
the teach.cs labs can be found at the CS teaching labs website:
https://www.teach.cs.toronto.edu//using_cdf.html

You will need this for Assignment 1 to run NetLogo.

On Linux:
>>> ssh -X USERNAME@teach.cs.toronto.edu
>>> netlogo

Accessing NetLogo remotely

Instructions on various ways to remotely access a graphical interface for the teach.cs labs can be found at the CS teaching labs website:
`https://www.teach.cs.toronto.edu//using_cdf.html`

You will need this for Assignment 1 to run NetLogo.

On Linux:
```
>>> ssh -X USERNAME@teach.cs.toronto.edu
>>> netlogo
```

Demo time!

Homophily

Can we think of examples where we might see homophily? How could influence or selection drive homophily in these examples?

Examples: Obesity & Divorce

Homophily has been observed in both obesity and divorce; this was studied by (Christakis et al.) and (McDermott et al.) respectively.
The observed homophily could be due to Influence, Selection, or Confounding variables (e.g. sharing a local economic downturn). What do we think?

Examples: Obesity & Divorce

Homophily has been observed in both obesity and divorce; this was studied by (Christakis et al.) and (McDermott et al.) respectively.

The observed homophily could be due to Influence, Selection, or Confounding variables (e.g. sharing a local economic downturn). What do we think?

They used a longitudinal dataset from the Framingham Heart Study. They used tracking forms where the participants listed contact friends & family to create the social network. Consequently these friendships are directed; can we use this?

Examples: Obesity & Divorce

Both studies were looking for influence.

They checked for confounding variables by seeing if the direction of relationships had an impact – if the effect is solely due to confounding variables then direction should be irrelevant.

To help control for selection they conditioned on the lagged dependent variable (i.e. BMI at previous examination or marital status at previous examination respectively)

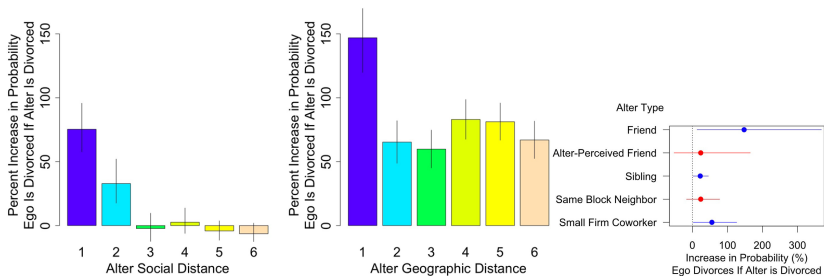Both studies found significant evidence for influence

Examples: Obesity & Divorce

Both studies were looking for influence.

They checked for confounding variables by seeing if the direction of relationships had an impact – if the effect is solely due to confounding variables then direction should be irrelevant.

To help control for selection they conditioned on the lagged dependent variable (i.e. BMI at previous examination or marital status at previous examination respectively)

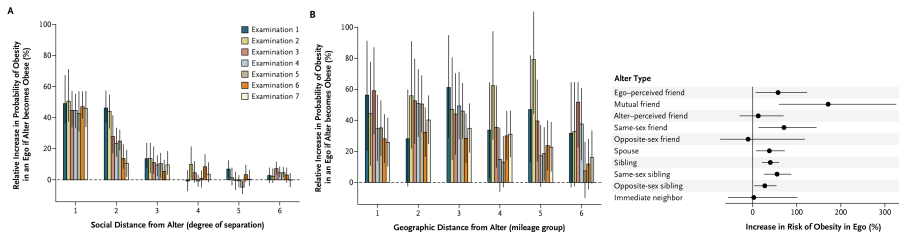Both studies found significant evidence for influence

Examples: Obesity & Divorce

Both studies were looking for influence.

They checked for confounding variables by seeing if the direction of relationships had an impact – if the effect is solely due to confounding variables then direction should be irrelevant.

To help control for selection they conditioned on the lagged dependent variable (i.e. BMI at previous examination or marital status at previous examination respectively)

Both studies found significant evidence for influence

Quercus Quiz