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Tie strength in leisure contacts

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Motivation

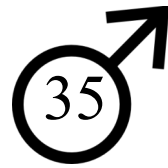
Using the methods of SNA aims to:

- Approach and explain leisure traffic

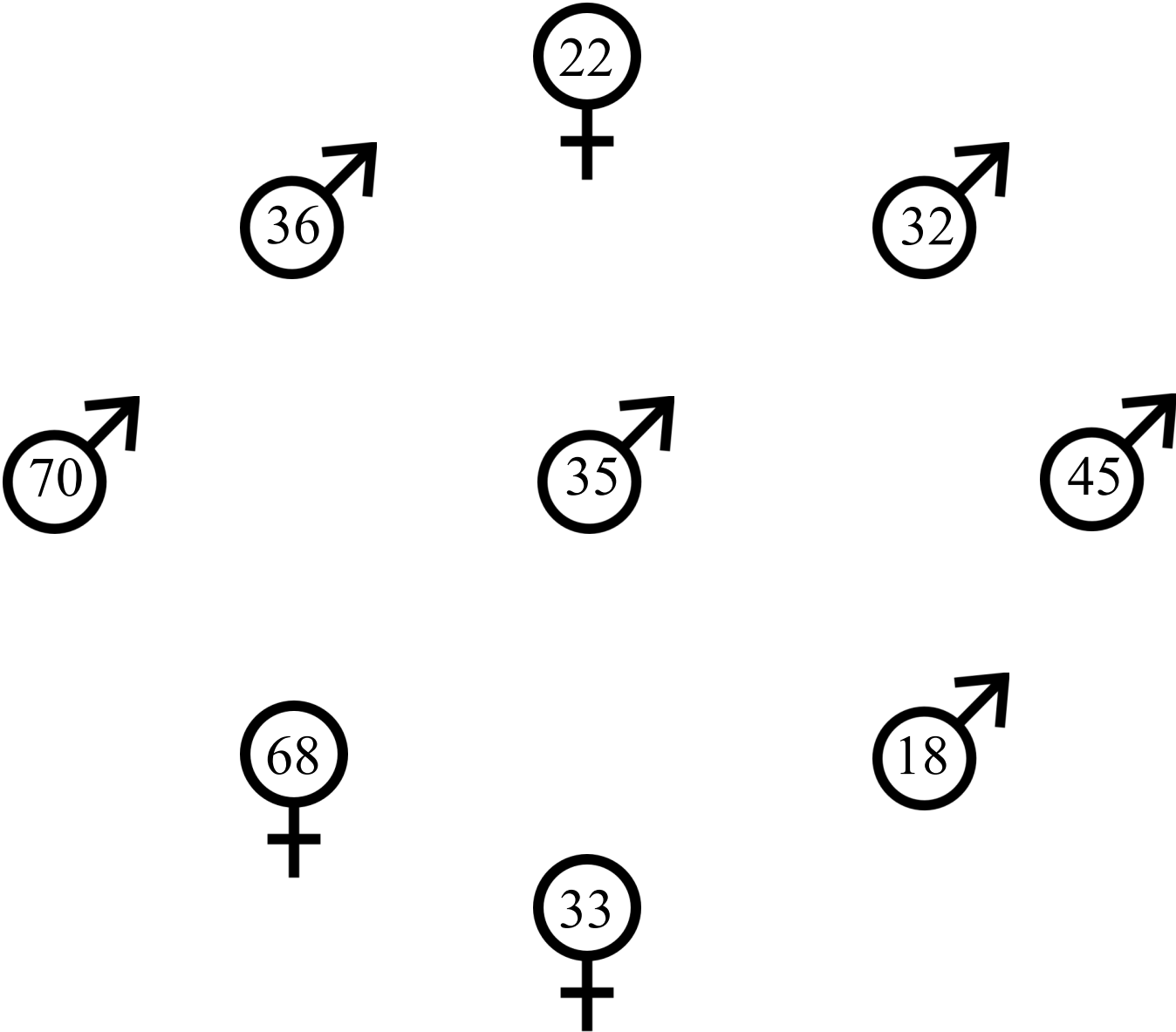
Taking a snowball allows to:

- Address the structure of personal networks
- Address personal relations on a macroscopic level

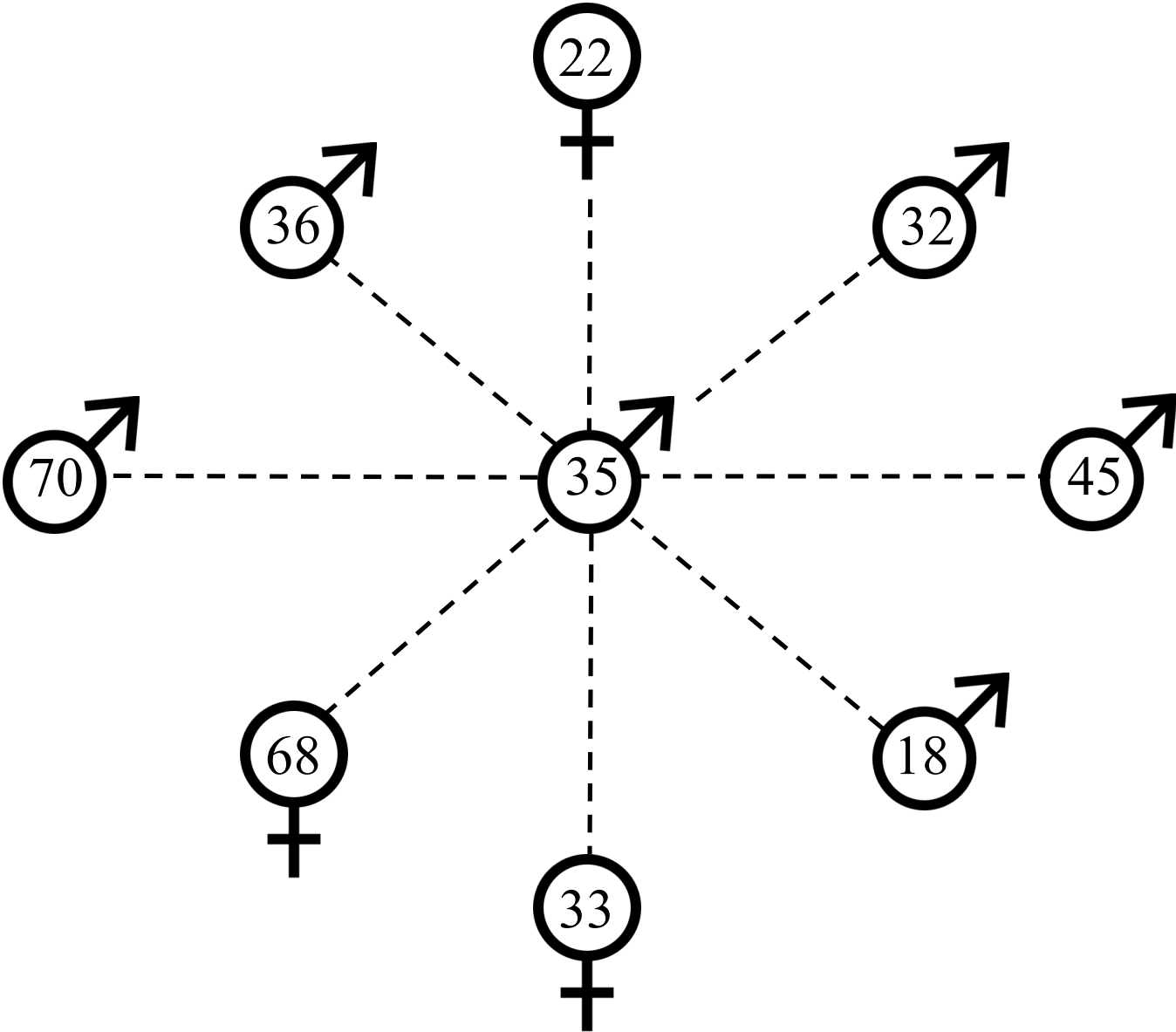
Survey instrument



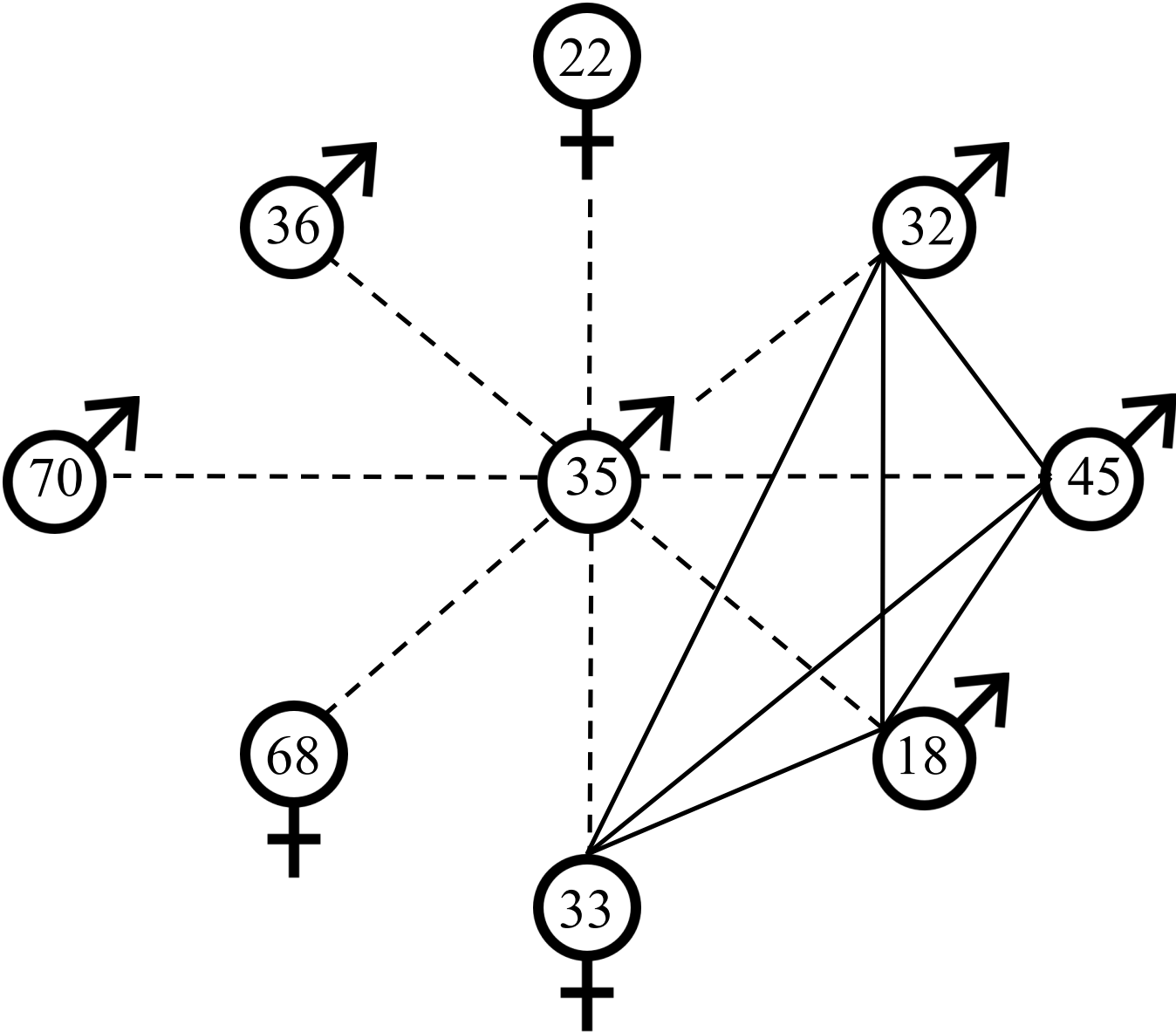
Survey instrument



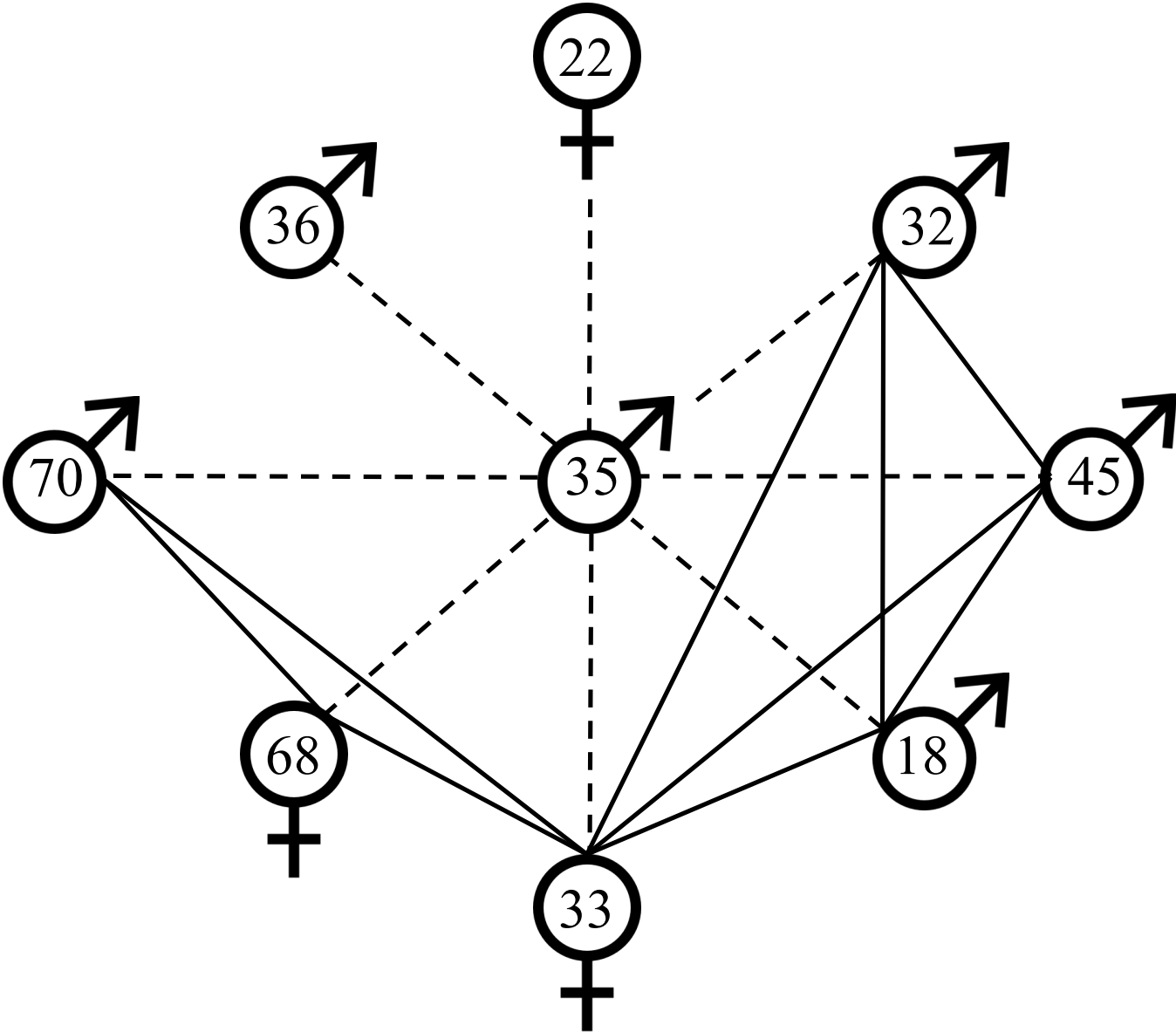
Survey instrument



Survey instrument



Survey instrument



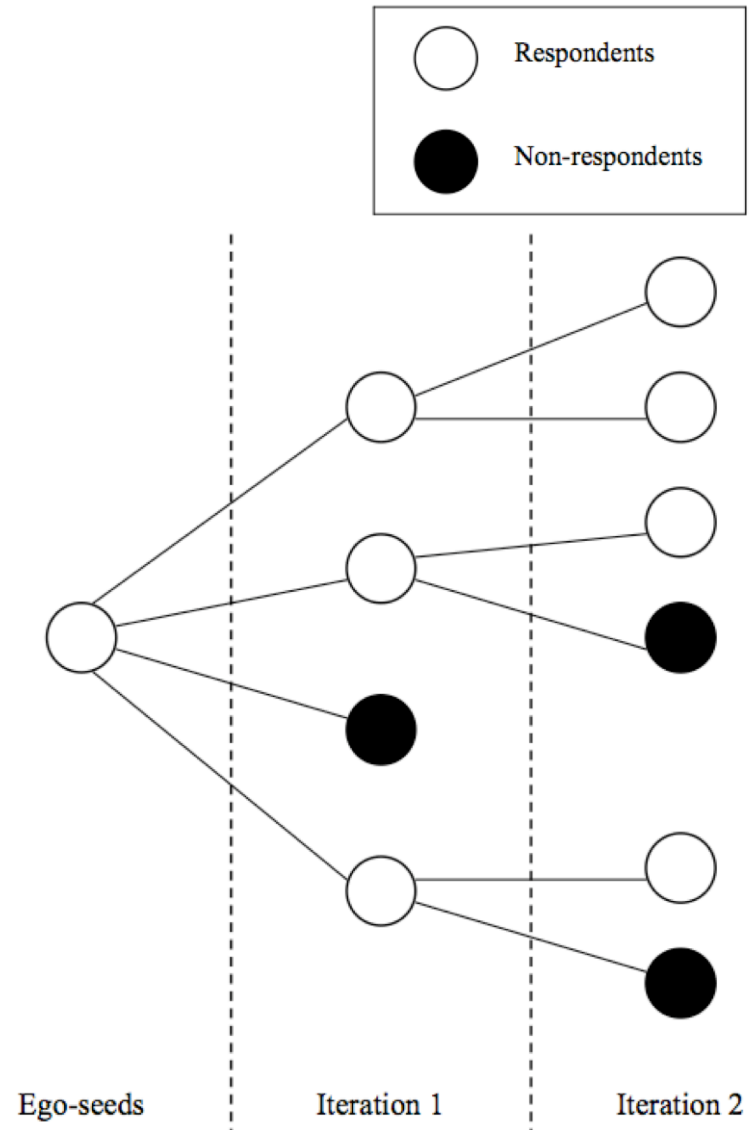
Methodology: Snowball Sampling

Advantage:

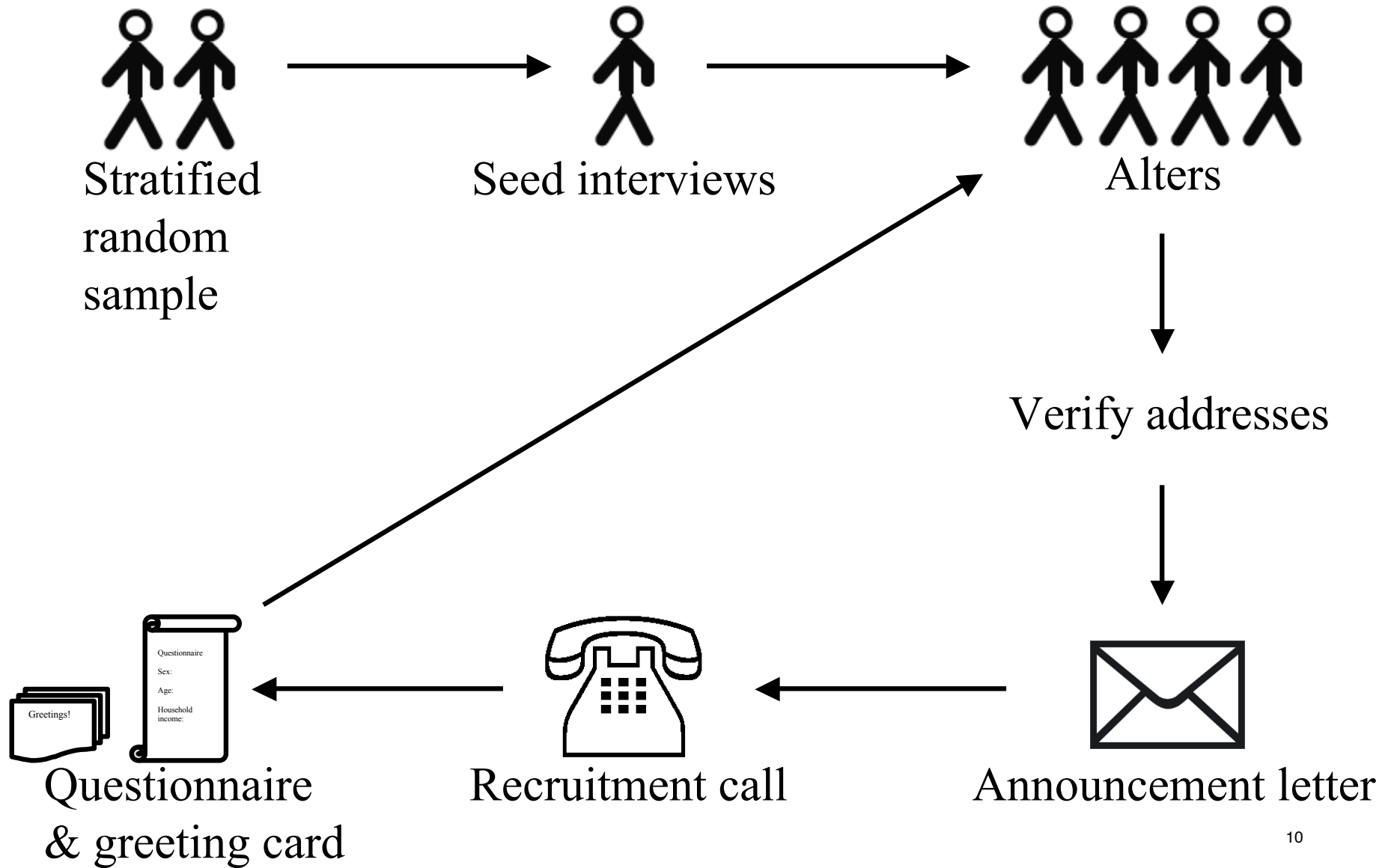
- Collect information on connected personal networks

Disadvantage:

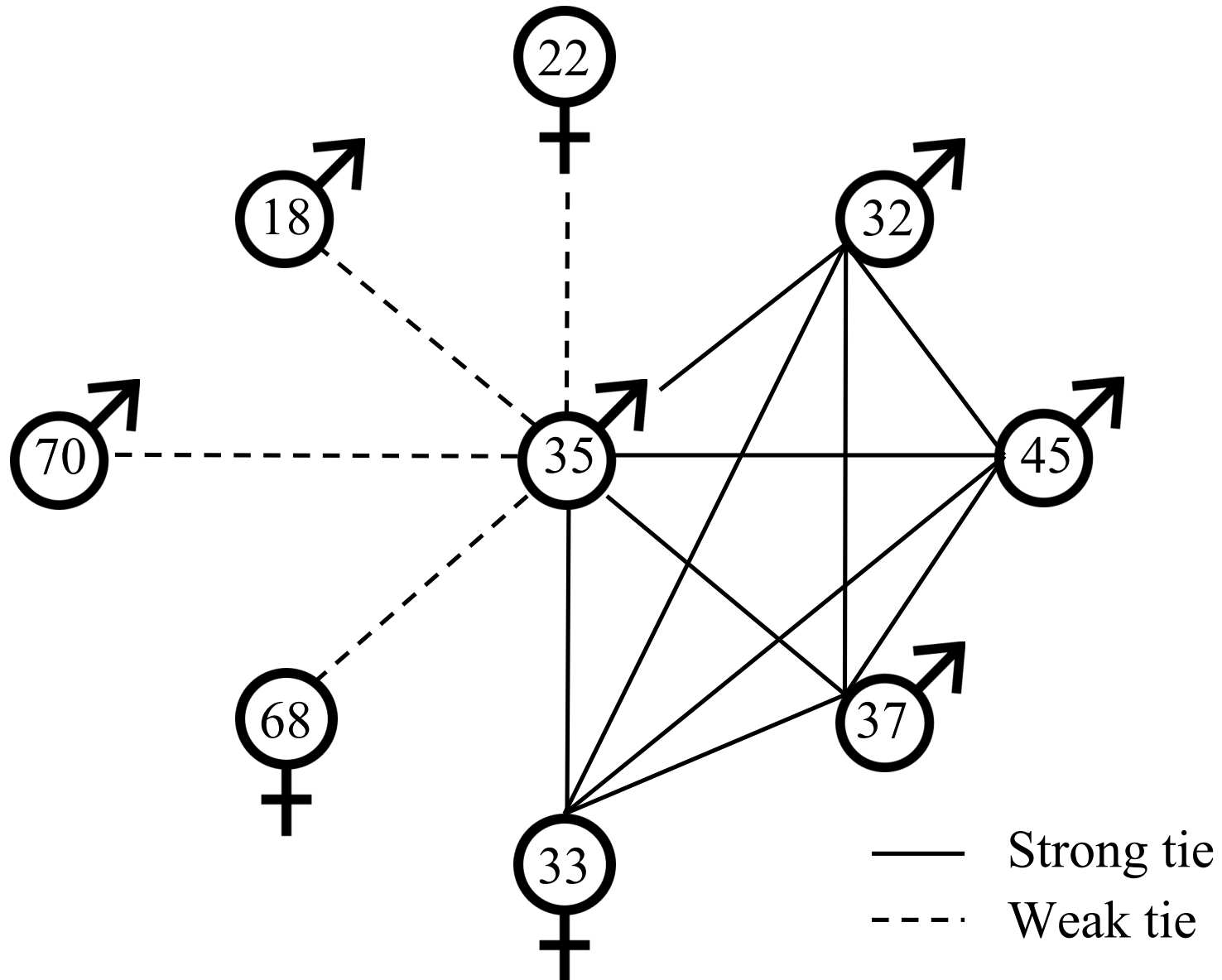
- Several sources of bias



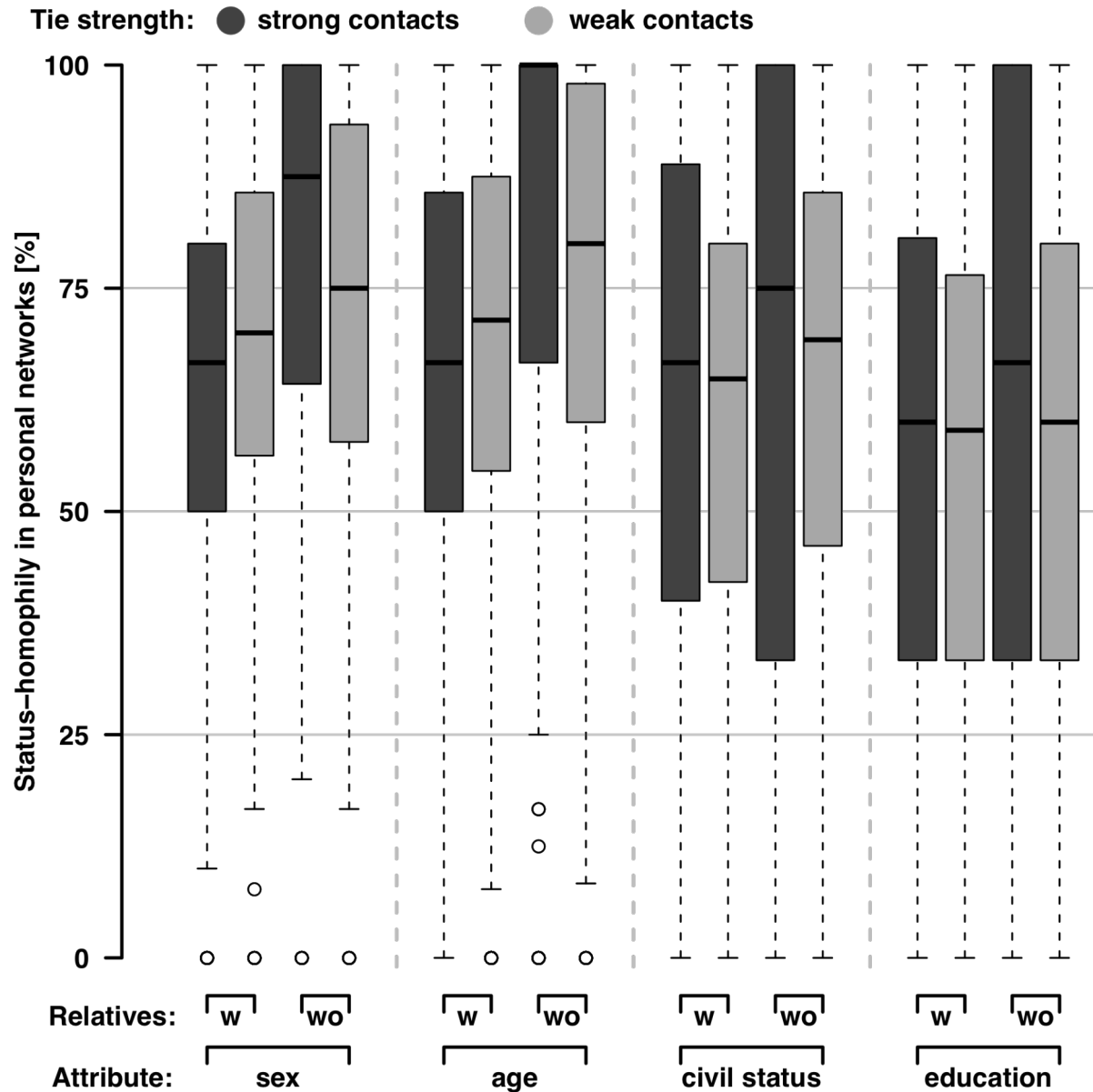
Protocol



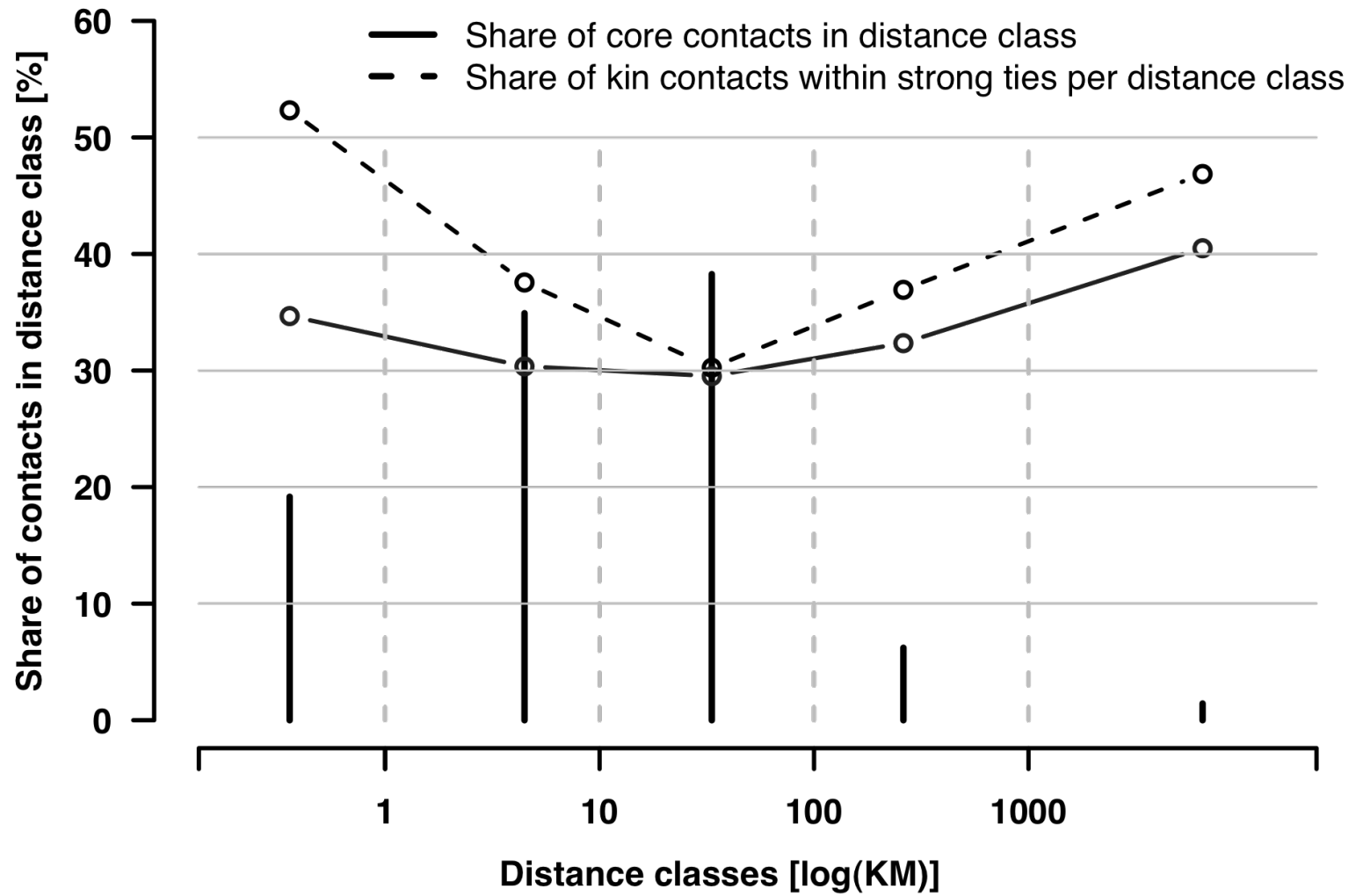
Schema: weak and strong ties



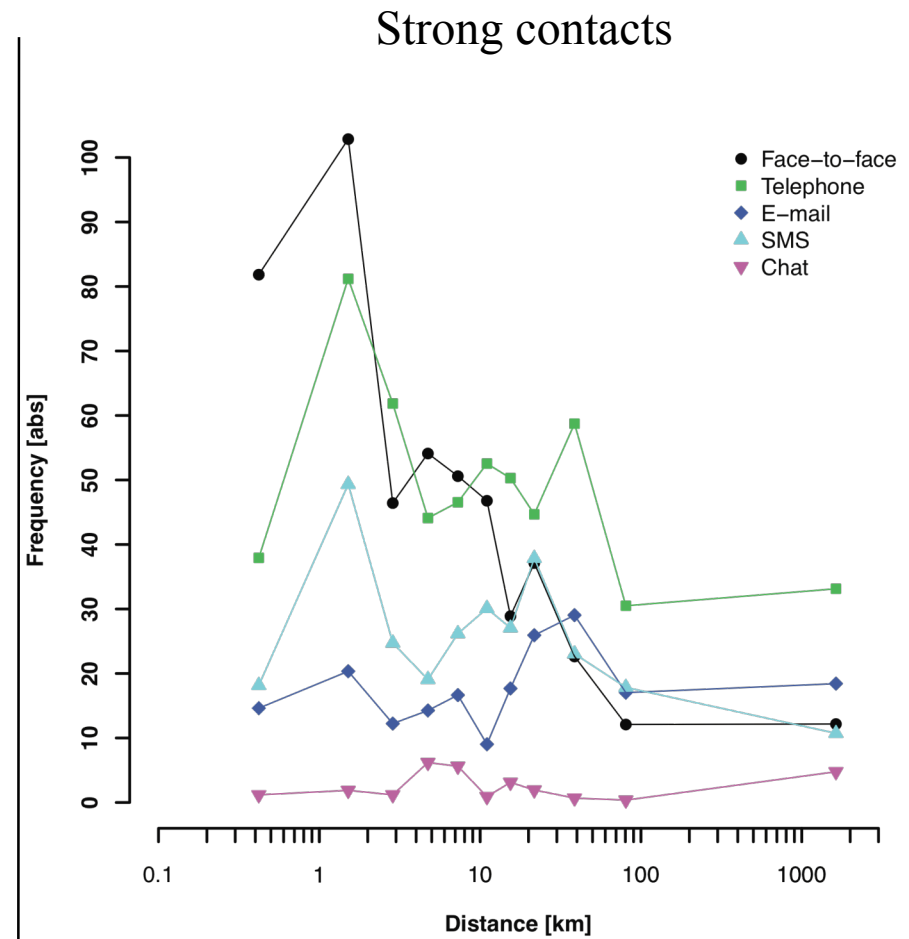
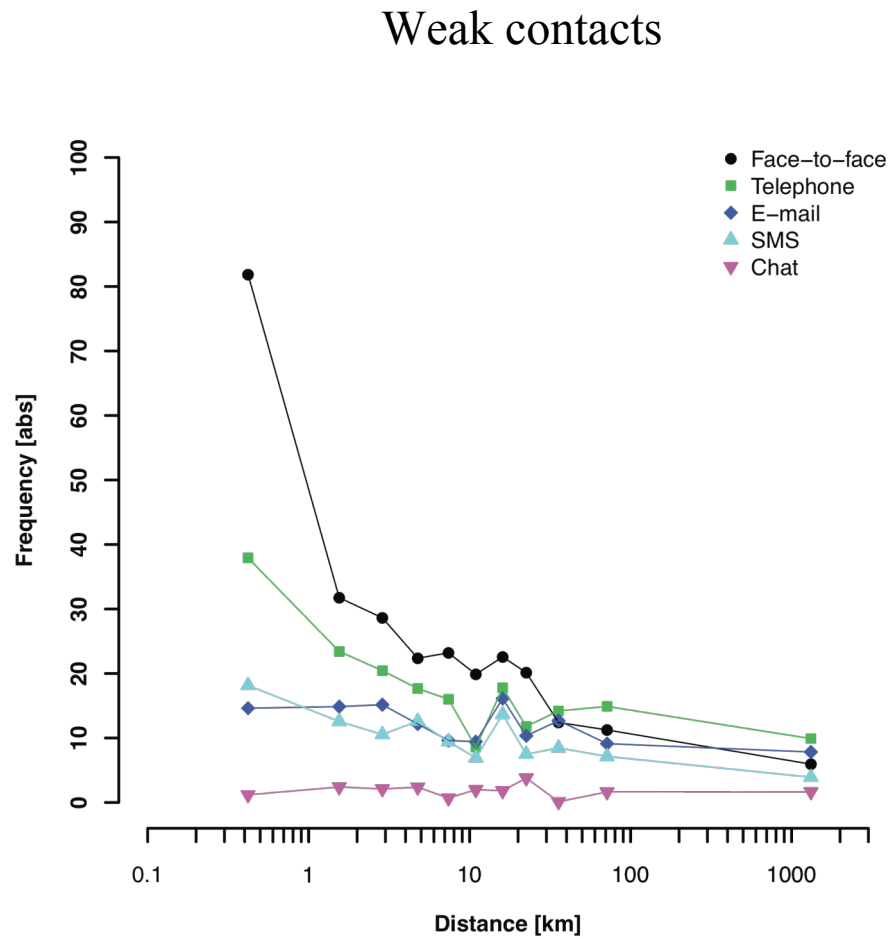
Homophily in strong and weak ties



The geographical spread of leisure contacts



Egos' contacts with alters: Modes and frequencies



Linear regression model on sqrt network size

Effects	Coefficient	St.-Error	t-value
Intercept	4.890	0.234	20.920
Continous effects			
People in household [number]	0.084	0.030	2.727
First residents in course of live [number]	0.027	0.013	2.018
Cliques in network (w/o isolates) [number]	0.196	0.015	13.040
Density in network [share]	-0.815	0.236	-3.461
Degree of centralization in network [share]	-0.902	0.303	-2.978
Share of strong ties [share]	-0.012	0.002	-7.628
Share of alters with ego's sex [share]	-0.010	0.002	-4.084
Dummy effects			
HH Income (< 8'000 CHF/month)	-0.364	0.101	-3.609
HH Income (> 8'001 & < 12'000 CHF/month)	-0.268	0.097	-2.775
df			537
R ²			0.392

Multilevel logistic regression model on tie strength

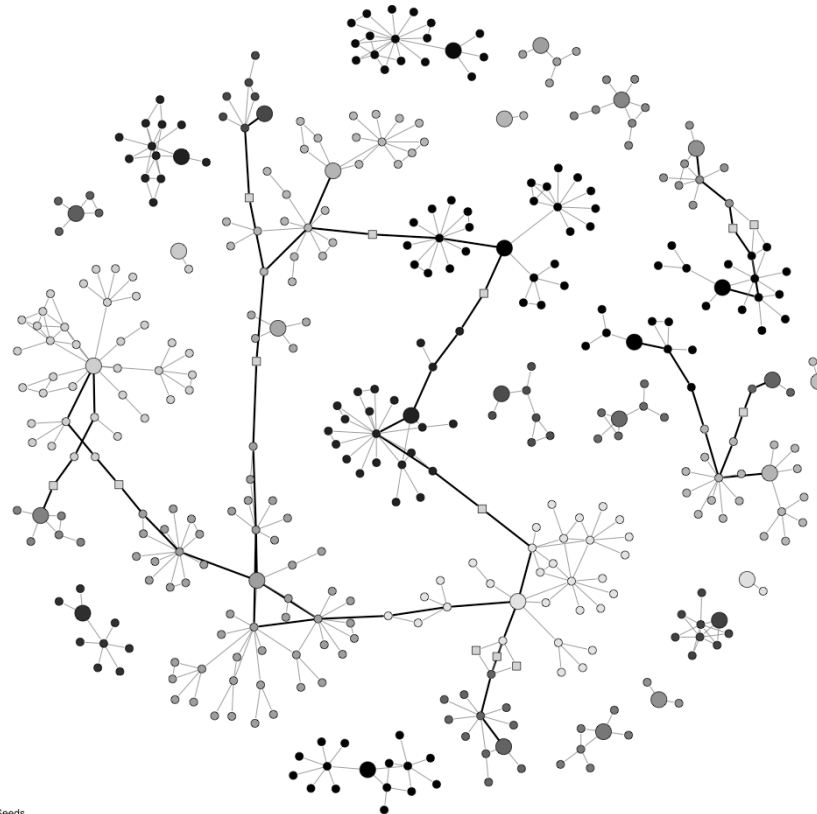
Effects	Coefficient	t-value	Odd ratios
Threshold	3.031	10.445	
Continuous effects on level 1			
Relation duration [years]	0.054	12.712	1.055
Face-to-face contacts [year]	0.007	4.339	1.007
ICT contacts [year]	0.013	11.570	1.013
Dummy effects on Level 1			
Sex homophily [y/n]	0.236	2.895	1.266
Alter is a kin contact [y/n]	0.758	5.760	2.135
Continuous effects on level 2			
Children in household [number]	0.342	3.784	
Network size [number of alters]	-0.028	-2.946	
Residual variance	2.470	0.000	

Behind egos' horizons: The connected 'snowball'-graph

○ Seed

○ Ego

■ Bridging alter



○ Seeds
○ Egos
■ Bridge-Altters

	Vertices	Edges	Density	Components	Tringles
Without sociogram	6'584	7'349	0.000	19	0.017
With sociogram	6'584	32'671	0.002	19	0.518

Conclusion

Distinction between strong and weak leisure ties is important:

- 'Chosen' strong ties are similar to ego
- Relatives are often strongly related and dissimilar to ego
- Long term relationships are often strongly related
- Strongly related persons are in contact frequently
- There is a negative correlation between network size and number of core contacts

Outlook

More research needs to be done in terms of:

Personal networks:

- Do strong contacts form (several) cliques?
- Are weak contacts known to each other?

Snowball network:

- Analyse characteristics of bridging alters