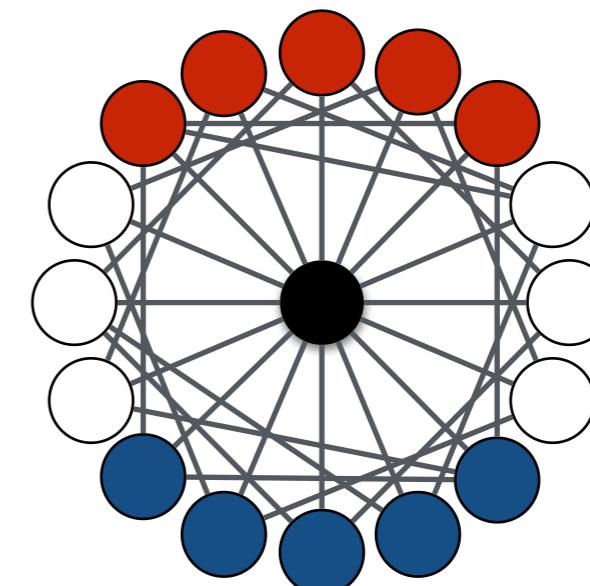


# Collecting Personal Networks

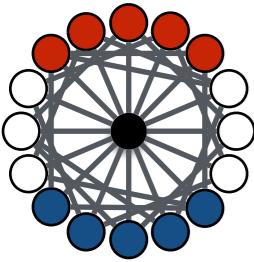


university of  
groningen

faculty of behavioural and  
social sciences

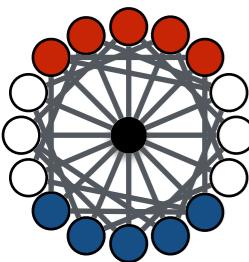
sociology

gert stulp • g.stulp@rug.nl • [www.gertstulp.com](http://www.gertstulp.com)



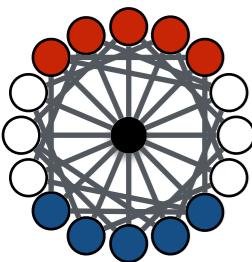
# SOME QUESTIONS

- Appropriate mode of interview?
- How to elicit alter names?
- How many names to elicit?
- What to ask about alters?
- How to design the survey?



# INTERVIEW MODE

Mode interview	Advantages	Disadvantages
<b>Face to face</b>	<ul style="list-style-type: none"><li>- Cognitively easy</li><li>- Interviewer can<ul style="list-style-type: none"><li>- help</li><li>- reduces satisficing</li><li>- respond to fading interest</li><li>- prone non-response</li></ul></li></ul>	<ul style="list-style-type: none"><li>- Expensive and complicated</li><li>- Interviewer bias</li><li>- Response bias</li></ul>
<b>Telephone</b>	<ul style="list-style-type: none"><li>- More efficient and less costly than F2F</li><li>- Less social desirability</li><li>- Fewer errors than web-based surveys</li></ul>	<ul style="list-style-type: none"><li>- Response rates low</li><li>- Distractions</li><li>- Multitasking can be cognitively demanding</li></ul>
<b>Self-administered (web)</b>	<ul style="list-style-type: none"><li>- Low cost</li><li>- Speed fo data collection</li><li>- No interviewer effects</li><li>- Less social desirability</li></ul>	<ul style="list-style-type: none"><li>- Argued to be most cognitive demanding</li><li>- Distractions</li><li>- Mechanical clicking</li><li>- High rates of nonresponse</li><li>- Incompletion when networks size is high</li></ul>



# INTERVIEW MODE

## ARE WEB-BASED SURVEYS REALLY THAT BAD?



Social Networks

Volume 32, Issue 2, May 2010, Pages 105-111

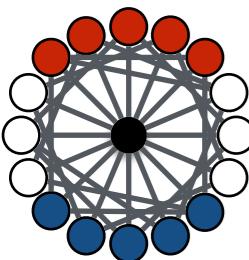


Does the online collection of ego-centered network data reduce data quality? An experimental comparison

Uwe Matzat  , Chris Snijders

### Web vs F2F:

- increased drop-out, missing values, mechanical clicking
- decreased number of alters

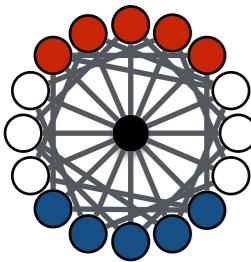


# DATA COLLECTION WORRIES

Aan de hand van onderstaande tabel wordt getracht te achterhalen hoe sterk de relaties zijn tussen de door u genoemde personen onderling. Het is een complexe vraag, maar zeer van belang voor het onderzoek.

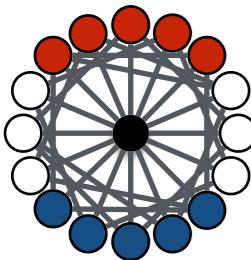
We willen graag weten hoe sterk de relatie is tussen de door u genoemde personen. Het is het eenvoudigst om met de meest linkse kolom te beginnen. Geef per combinatie van personen aan hoe de relatie tussen de twee is. Kies uit:

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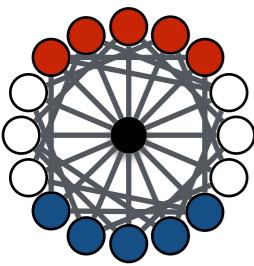
# NAME GENERATORS

Name generator	Based on?	Examples
<b>Exchange approach</b>	content of exchange	“discuss important matters”
<b>Role-relational approach</b>	the role of the relationship	asking for colleagues
<b>Affective approach</b>	based on the strength of the relationship	“who do you feel close to?”
<b>Interactional approach</b>	frequency of communication	“who you have had contact with in the last year?”



# NAME GENERATORS

Name generator	Validity	Flexibility	Specificity	Range	Cost
Exchange approach	Low	High	Low	Low	Low
Role-relational approach	High	Low	High	Varies	Varies
Affective approach	Moderate	High	Low	Low	Low
Interactional approach	Low	High	Low	High	High



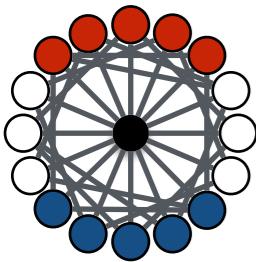
# # ALTERS



BIGGER IS BETTER (?)

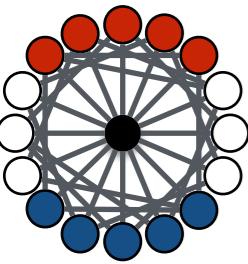
weak ties

structure characteristics

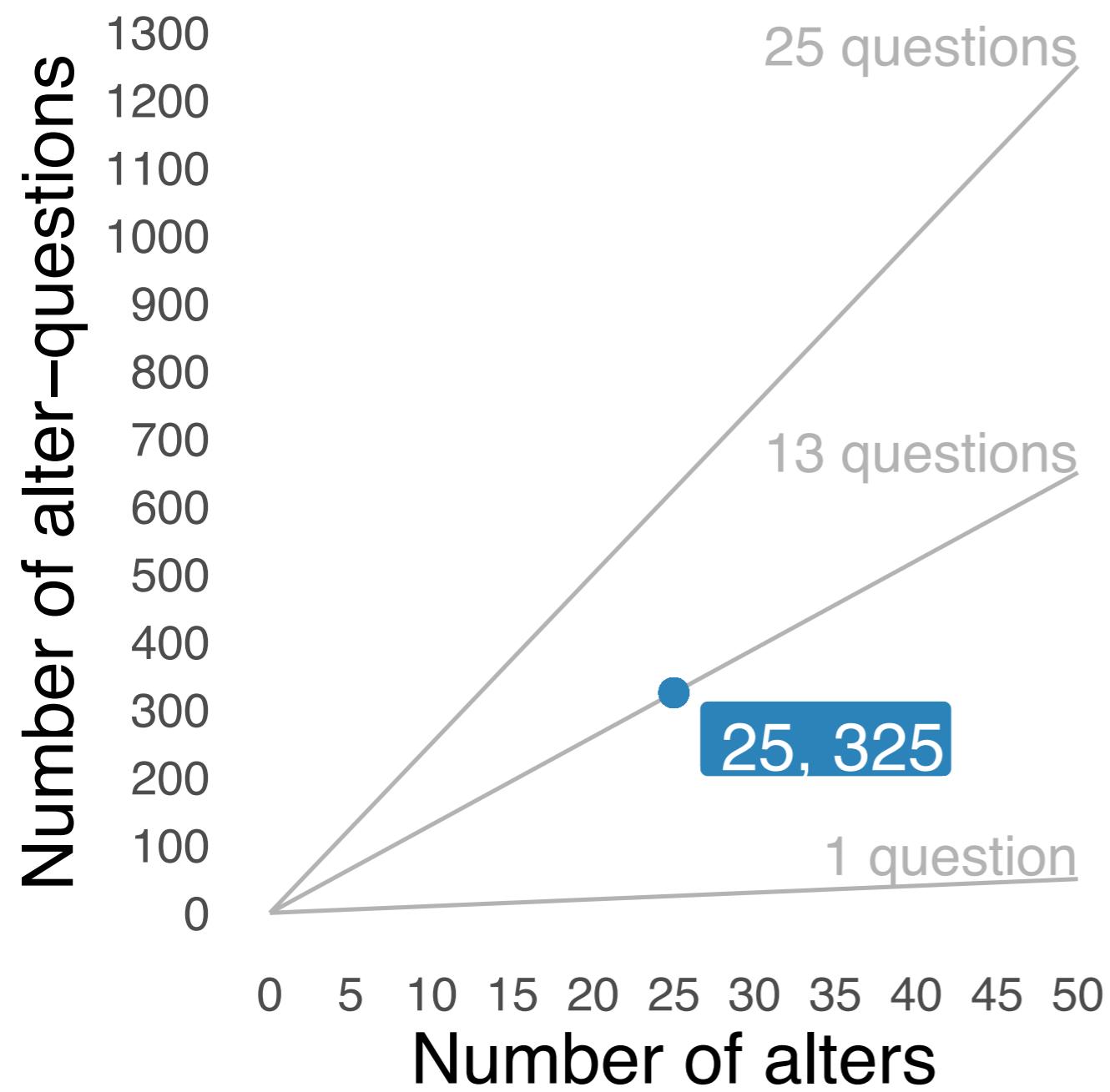


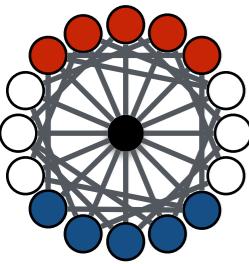
# DATA COLLECTION WORRIES



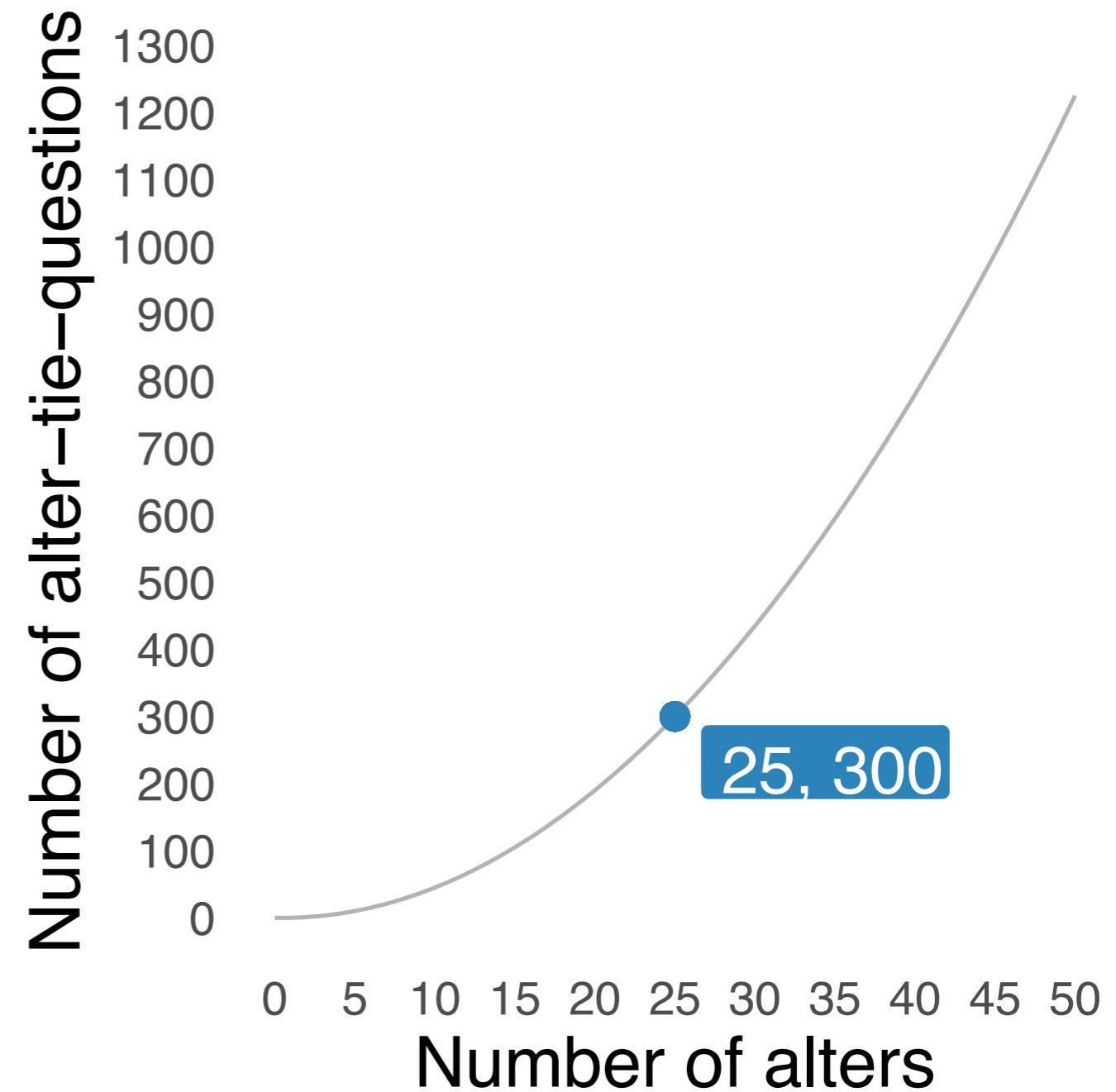
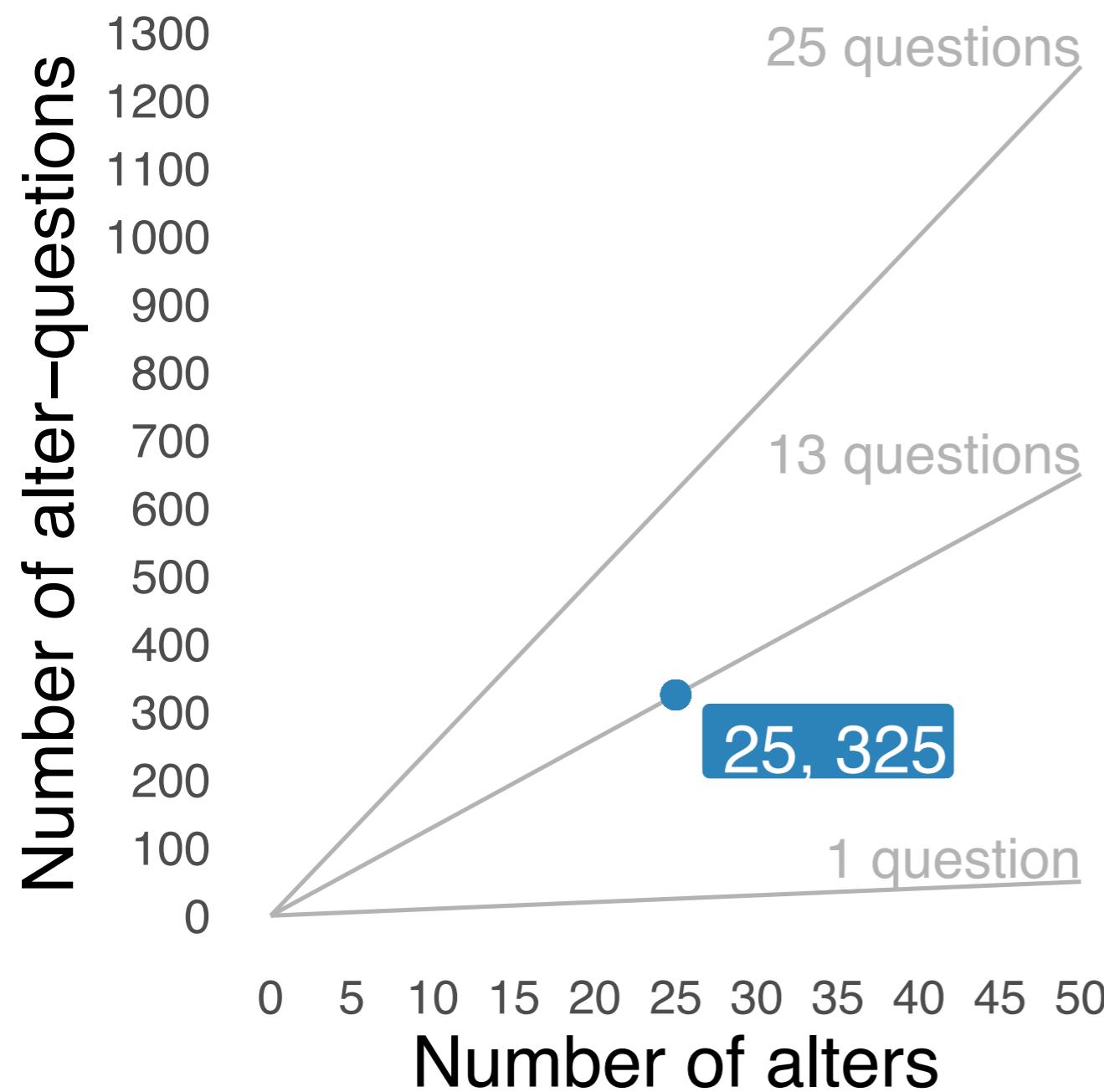


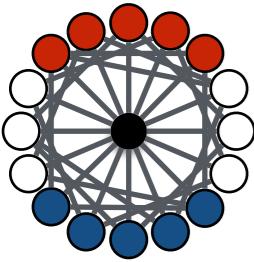
# DATA COLLECTION WORRIES





# DATA COLLECTION WORRIES





# # ALTERS

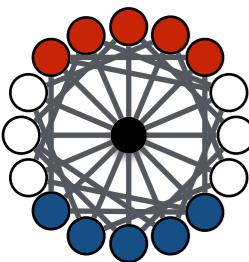
OBVIOUSLY DEPENDS ON  
WHAT YOU WANT

STD-research: “people you had sex with”

Divorce-research: (extended) kin

Affective relationship: “people you feel very close to”

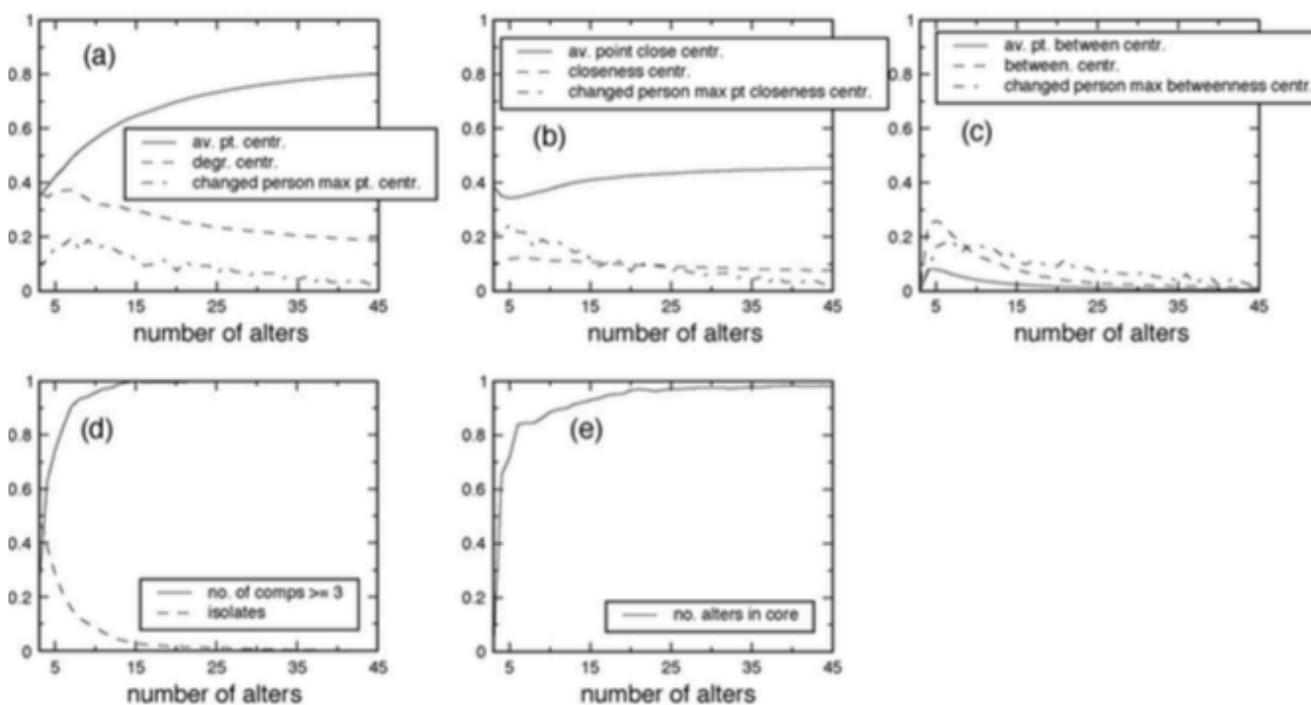
...



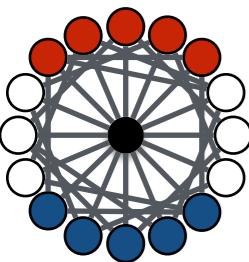
# # ALTERS

OBVIOUSLY DEPENDS ON  
WHAT YOU WANT

Do you want to say something sensible  
about network characteristics?



McCarty et al 2007:  
“it is clear that 35 alters  
will yield very similar  
results to an analysis  
using 45 alters. For most  
measures an analysis  
with 25 alters will also  
be adequate.”

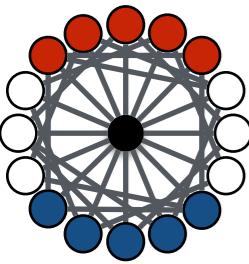


# # ALTERS

## FIXED VERSUS VARIABLE

**McCarty & Molina:**

"Given that the researcher likely cannot know which of these reasons made a respondent stop listing alters, our preference is to have respondents list a fixed number of alters. This way, each respondent has the same amount of work to do. Some respondents will have difficulty listing the required number of alters, and others will not. This difficulty will in all likelihood be reflected in the variability of the alter characteristics when you do your analysis. This variability, incidentally, is precisely the type of data you are trying to capture."



# WHAT TO ASK

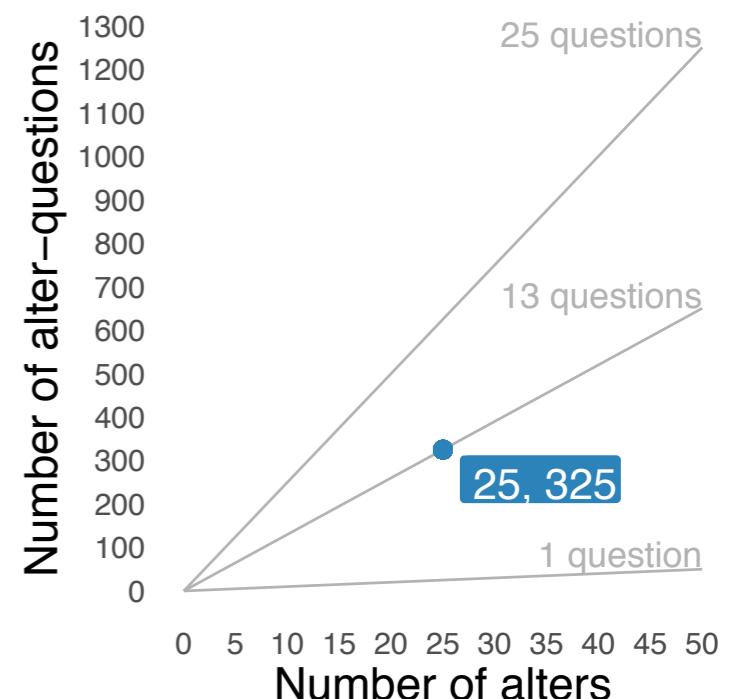
OBVIOUSLY DEPENDS ON  
WHAT YOU WANT

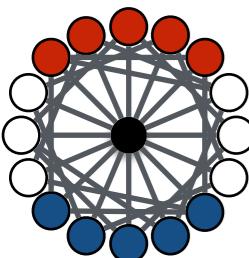
**Do you need to know this information for each alter?**

“can you turn to this individual for child care?” versus  
“can you make use of your network for child care?”

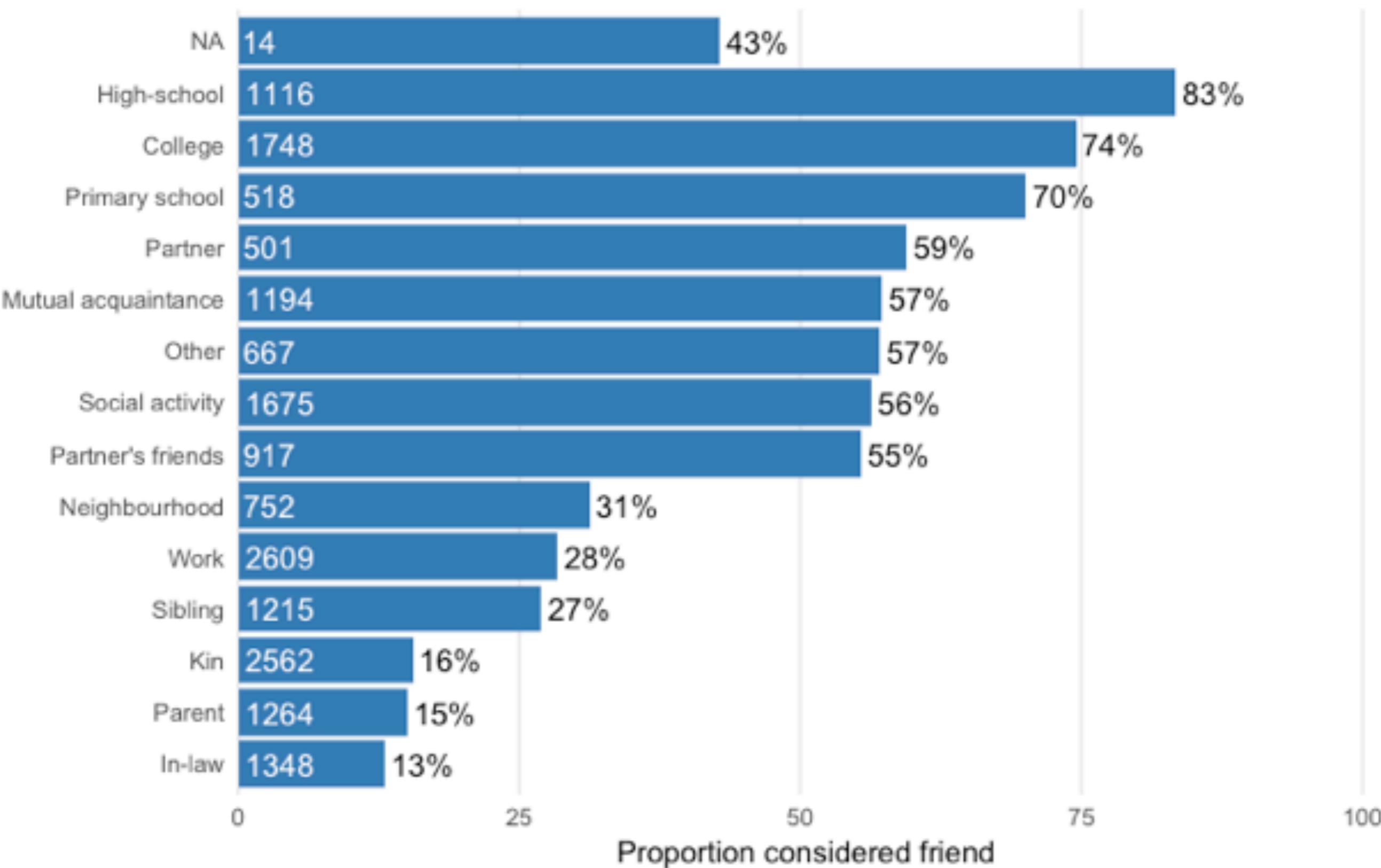
**For relationship strength:**

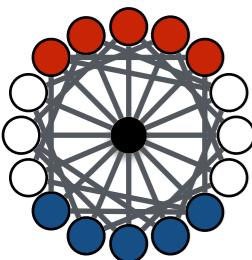
- closeness can best be used,  
differs from frequency of contact
- type of relationship is also useful  
(but: don't use “friend”)





# WHAT TO ASK





# DESIGNING SURVEY

Social Networks 48 (2017) 36–45

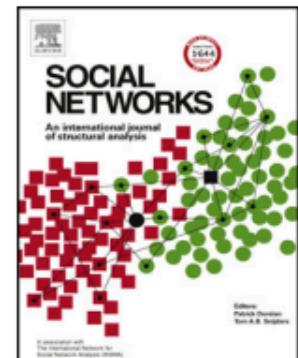


ELSEVIER

Contents lists available at [ScienceDirect](#)

Social Networks

journal homepage: [www.elsevier.com/locate/socnet](http://www.elsevier.com/locate/socnet)



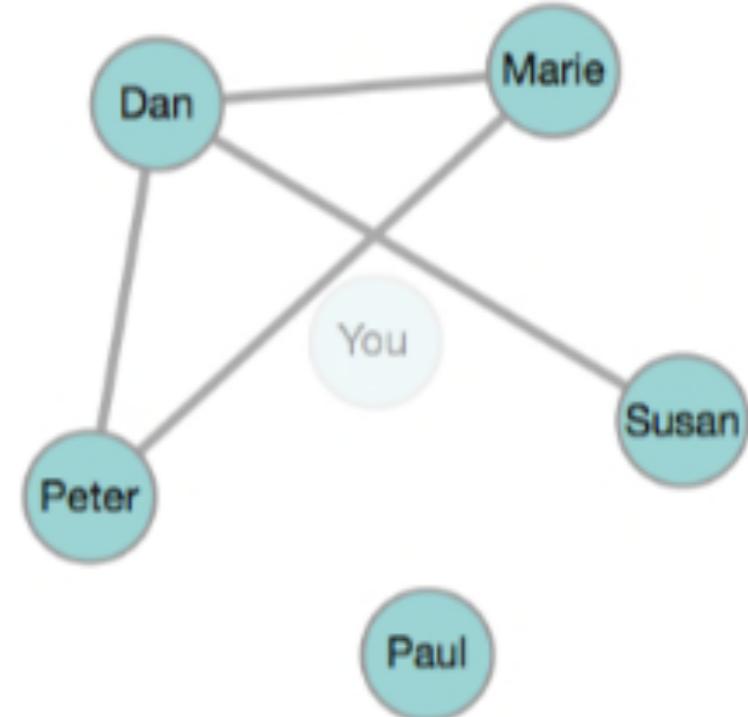
## GENSI: A new graphical tool to collect ego-centered network data

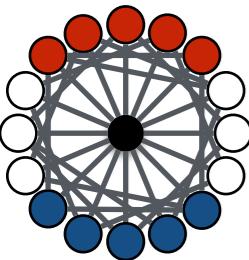


Tobias H. Stark<sup>a,\*</sup>, Jon A. Krosnick<sup>b</sup>

<sup>a</sup> Utrecht University/ICS, Padualaan 14, 3584 CH Utrecht, The Netherlands

<sup>b</sup> Stanford University, 450 Serra Mall, Stanford, CA 94305, United States





# DESIGNING SURVEY

Social Networks 48 (2017) 36–45

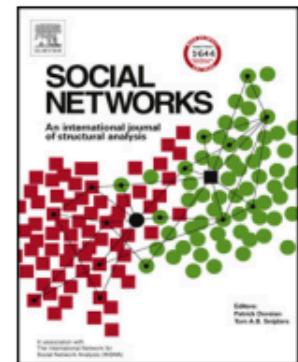


ELSEVIER

Contents lists available at [ScienceDirect](#)

Social Networks

journal homepage: [www.elsevier.com/locate/socnet](http://www.elsevier.com/locate/socnet)



## GENSI: A new graphical tool to collect ego-centered network data



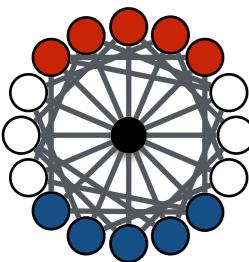
Tobias H. Stark<sup>a,\*</sup>, Jon A. Krosnick<sup>b</sup>

<sup>a</sup> Utrecht University/ICS, Padualaan 14, 3584 CH Utrecht, The Netherlands

<sup>b</sup> Stanford University, 450 Serra Mall, Stanford, CA 94305, United States

compared to standard survey-methods,  
people who used GENSI:

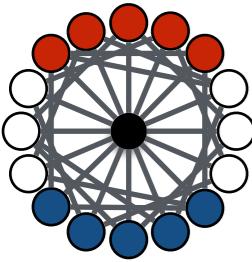
- enjoyed the survey more
- thought the survey was more interesting
- said they were more willing to participate in a future survey



# GENSI: name generator

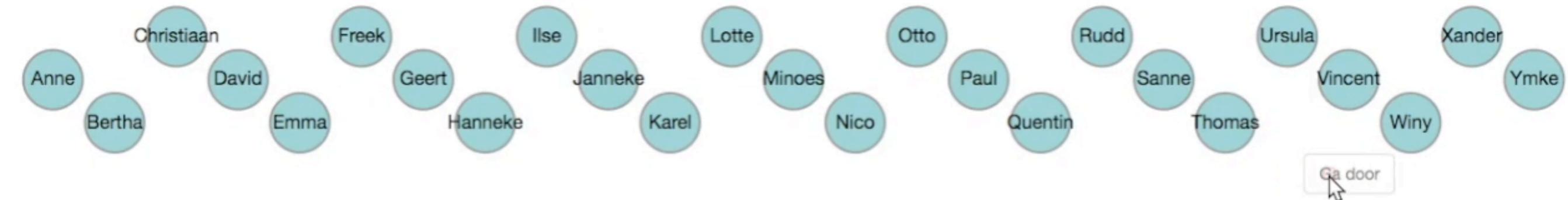
Please list 25 names of individuals 18 years or older with whom you have had contact in the last year. This can be face-to-face contact, but also contact via phone, internet, or email. You know these people and these people also know you from your name or face (think of friends, family, acquaintances, et cetera). You could reach out to these people if you would have to. Please name your partner in case you have one.

12345678910111213141516171819202122232425Ga door



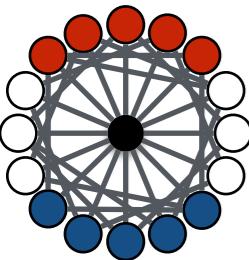
# GENSI: yes/no questions

Which of these individuals are male?



Sex  
Friend  
Wants children

Does not want children  
Help with children  
Talk about children



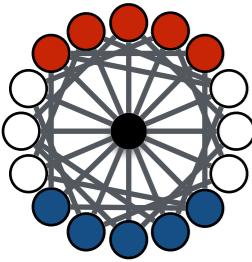
# GENSI: 5 response options

How close are you to these people?



Closeness  
Education

Frequency of contact F2F  
Frequency of other contact



# GENSI: alter-alter-ties

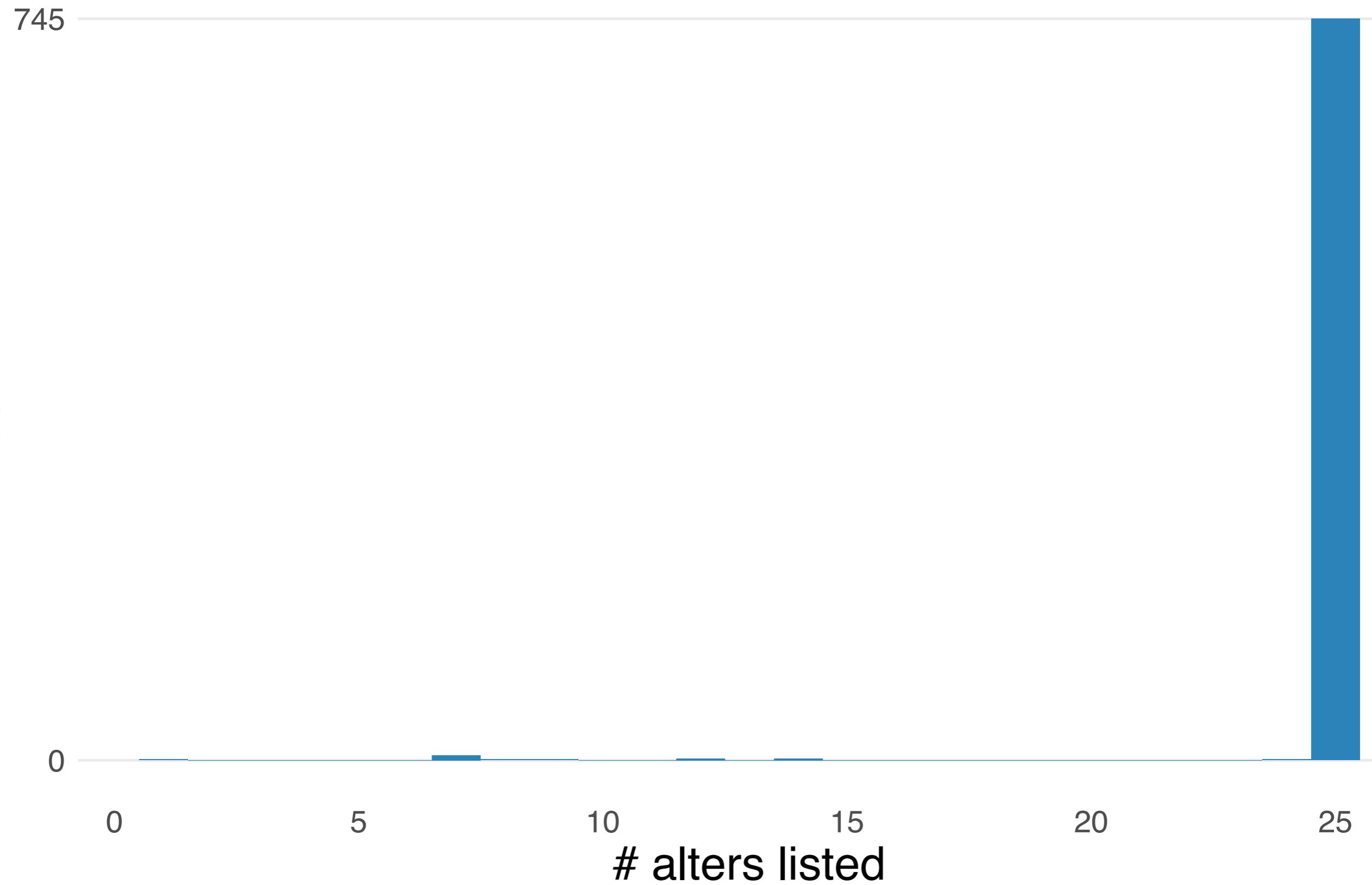
Als het gaat om ANNE

Met wie heeft ANNE contact? Met contact bedoelen we alle vormen van contact, zoals face-to-face contact, contact via (mobiele) telefoon, post, email, sms, en andere manieren van online en offline communicatie.

Selecteer de personen die contact met elkaar hebben door met de muis op het bolletje te klikken. Er zal een lijn ontstaan die aangeeft dat de personen contact met elkaar hebben. Druk nogmaals op het bolletje om de lijn weer te laten verdwijnen, als de personen geen contact met elkaar hebben.

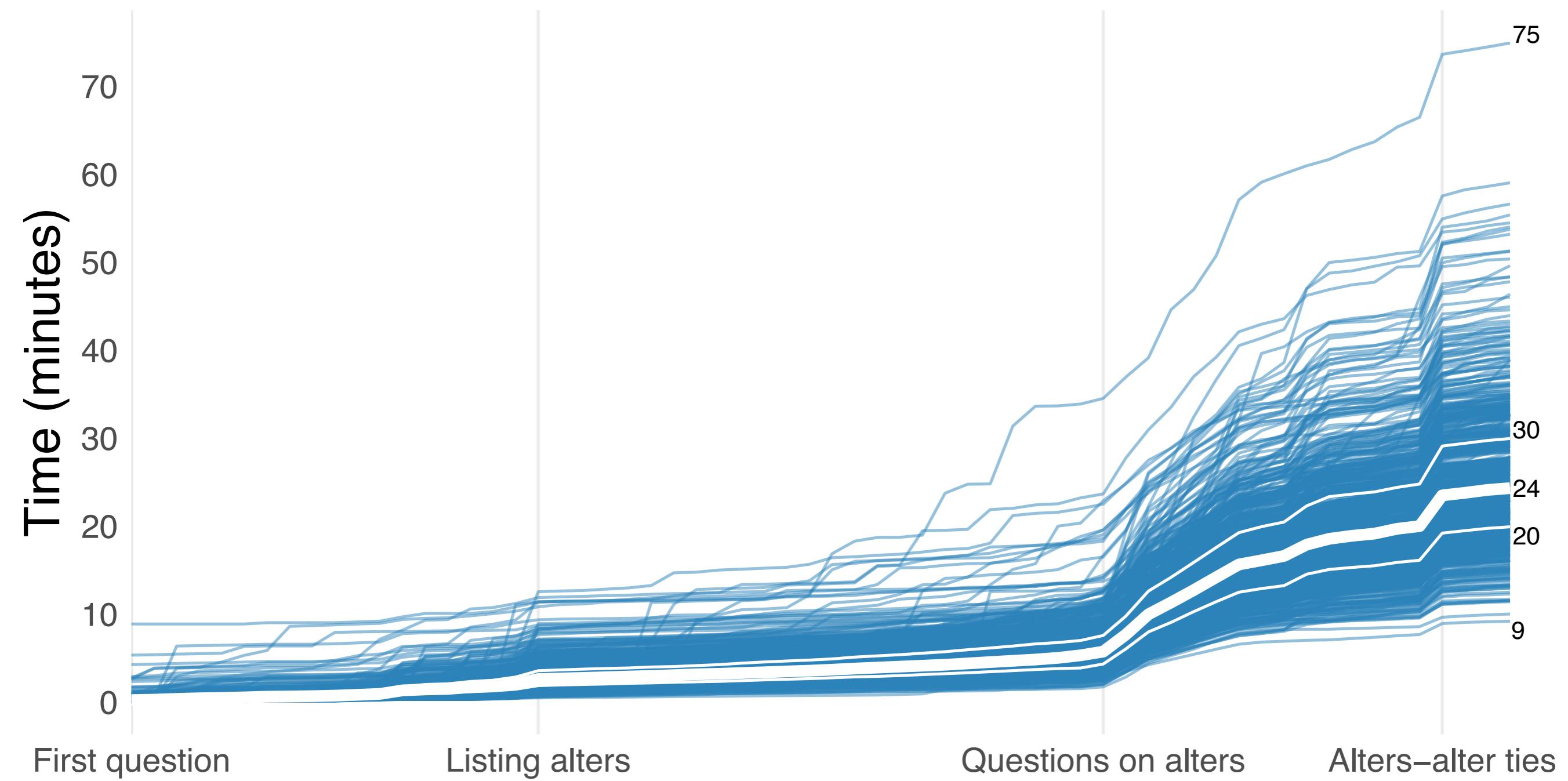


Only 13 (2%) women listed fewer than 25 alters, with 1 individual naming 24 alters and 12 mentioning fewer than 15 names



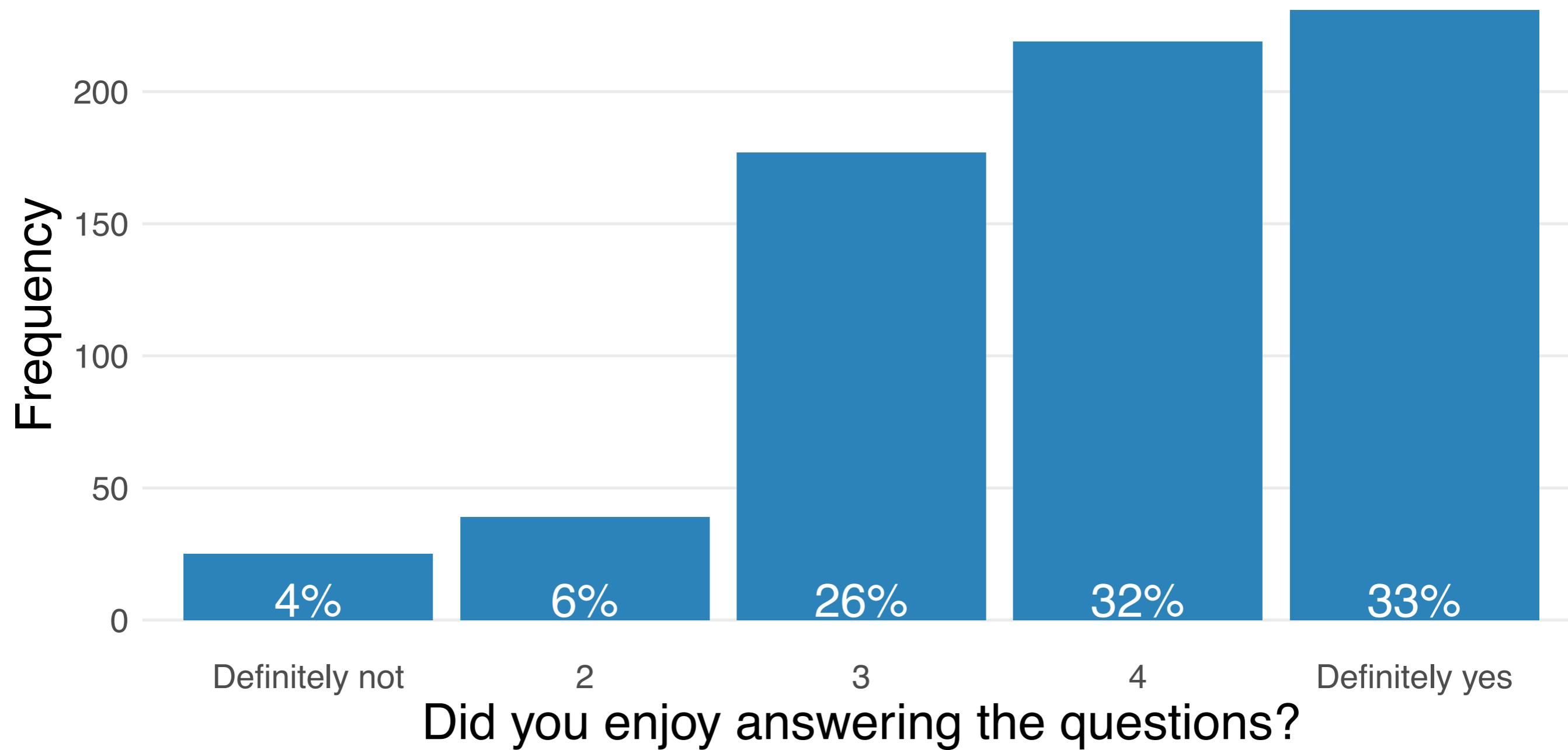
**Without 10-minute pauses, 75% of respondents  
completed the survey within 30 minutes**

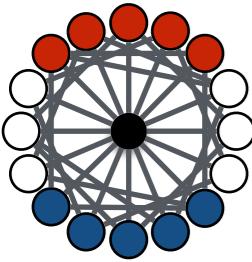
N = 654



**65% of the respondents enjoyed filling in the survey,  
whereas 10% did not enjoy it so much**

N = 691

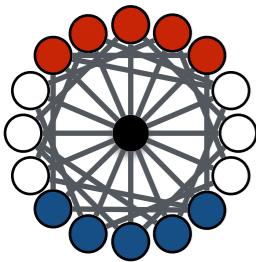




# DESIGNING SURVEY

## SOME LESSONS

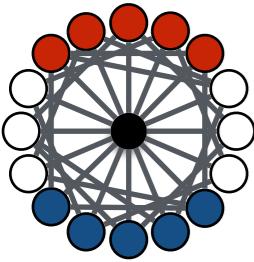
1. Providing more name boxes increases number of alters
  - Heaping
2. Alter characteristics per *question* better than per *alter*
3. Visualizations and visual niceties help
4. Avoid “adjacency matrices”
5. Provide all labels to e.g. likert scales



# DESIGNING SURVEY

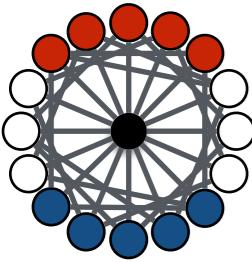
## SOME INSPIRATION

1. <https://www.networkcanvas.com/>
2. <http://www.openeddi.com/>
3. <https://www.gertstulp.com/gensi/>



# THIS STUDY

Collecting  
large personal networks  
in a  
representative sample  
of Dutch women, using  
**GENSI**

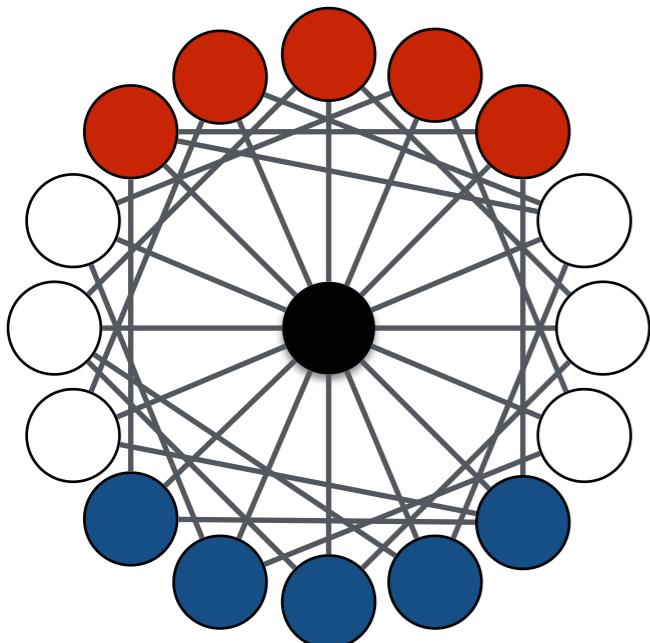


# METHODOLOGY

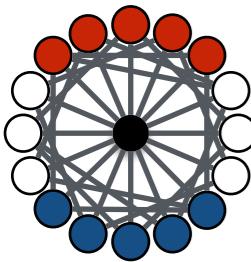


## Longitudinal Internet Studies for the Social sciences

True probability sample of households drawn from the population register.  
Respondents participate in monthly Internet surveys.  
Extensive background information available on respondent  
High retention rates (e.g., 70 %)



All women between 18 - 40 asked ( $N = 1322$ )  
 $N = 758$  responded (57%); age: 29 ( $\pm 6$ )  
Incentive: 12.50 euro  
Period of 1 month (~ march)



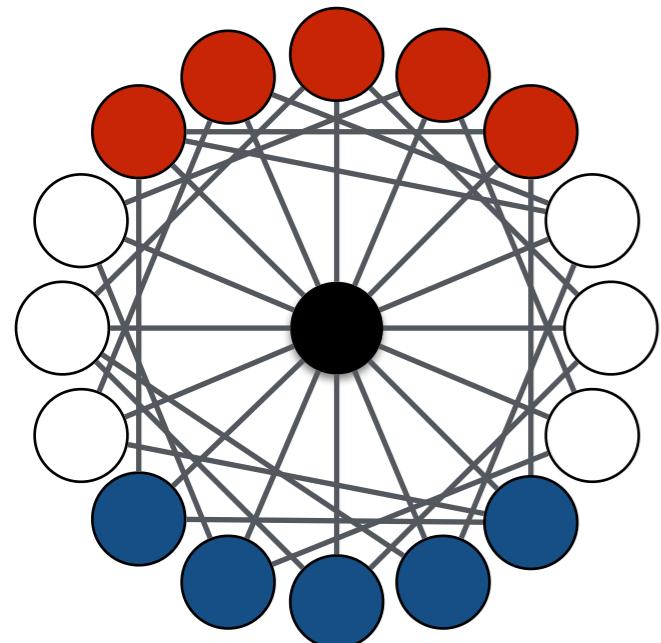
# METHODOLOGY

Ego



Detailed fertility intentions

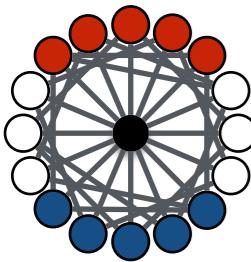
Alters (25)



Sex  
Age  
Education  
Relationship type  
Closeness

Frequency of contact F2F  
Frequency of other contact

Number and age of children  
Friend  
Wants children  
Does not want children  
Help with children  
Talk about children  
Relationship with other alters



# GENSI

## Programmed in JavaScript

### Pros

- “Light” (1 Mb)
- Works with any device with browser
- Can be implemented in other surveys
- Free

### Cons

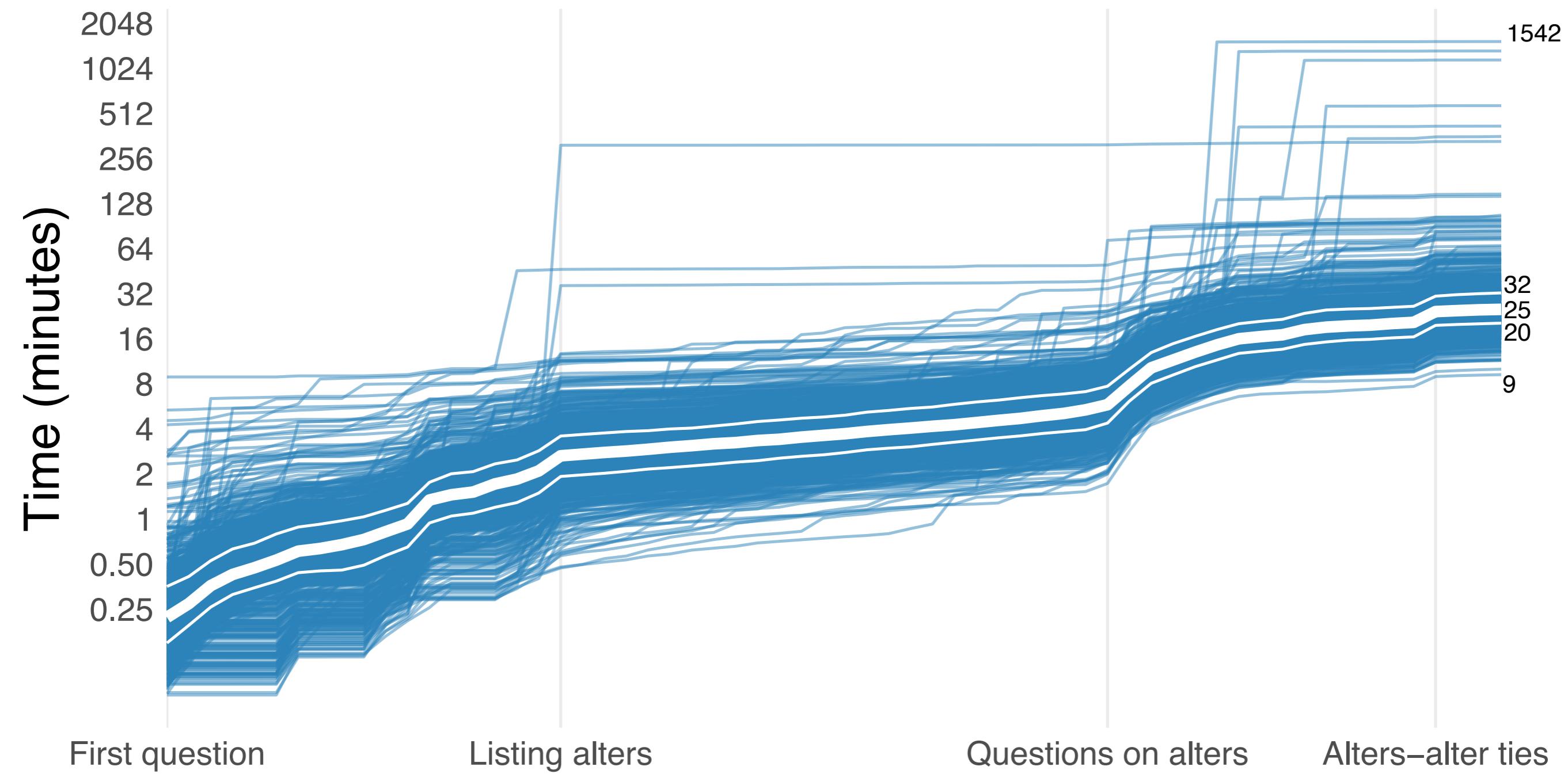
- Not ideal for mobile phones (currently)
- Answers can't be saved for later use
- Being able to “go back” requires considerable coding

[www.tobiasstark.nl/GENSI](http://www.tobiasstark.nl/GENSI)

[www.gertstulp.nl/GENSI](http://www.gertstulp.nl/GENSI)

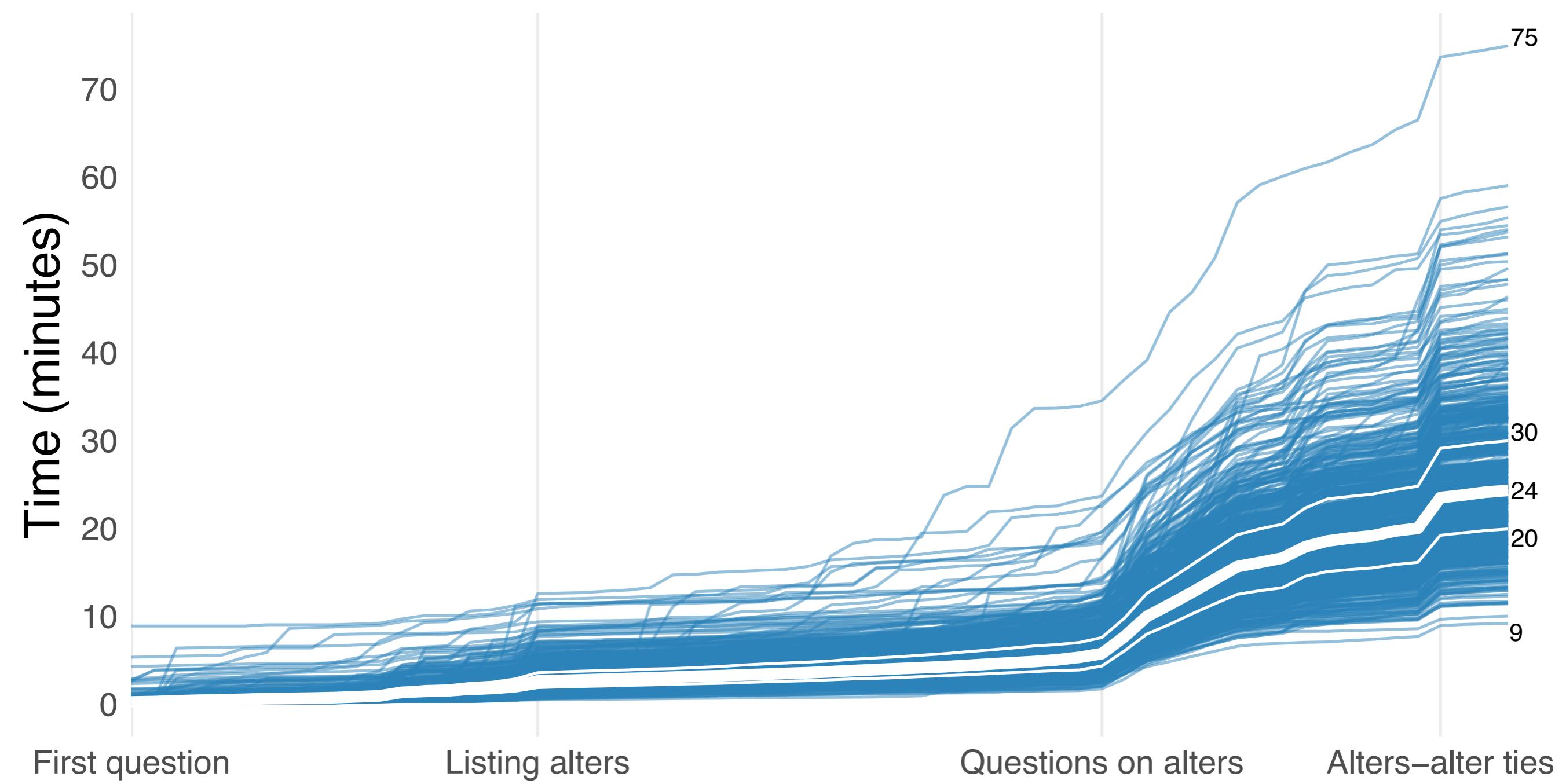
**50% of respondents completed the survey within 25 minutes; the longest duration was about 26 hours**

N = 715



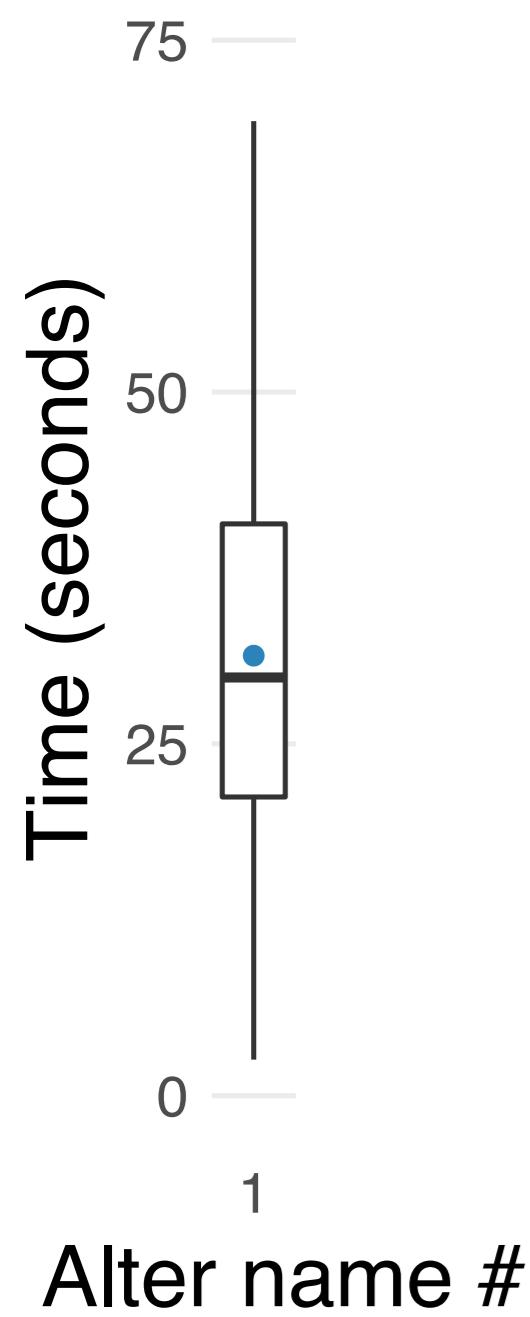
# Age and ethnic background predictors of duration, education not

N = 654



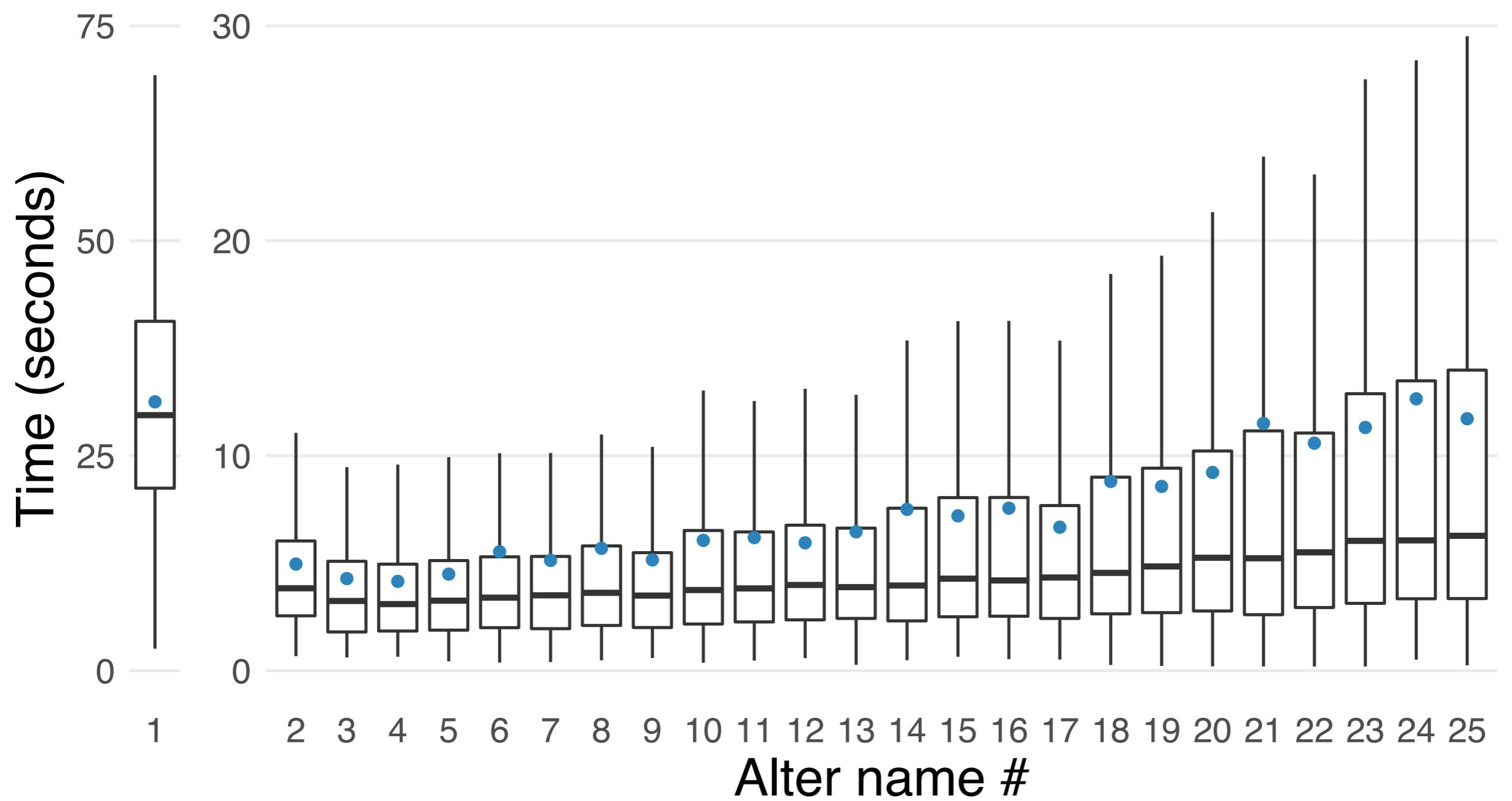
**Listing first alter took about 30 seconds**

N = 654



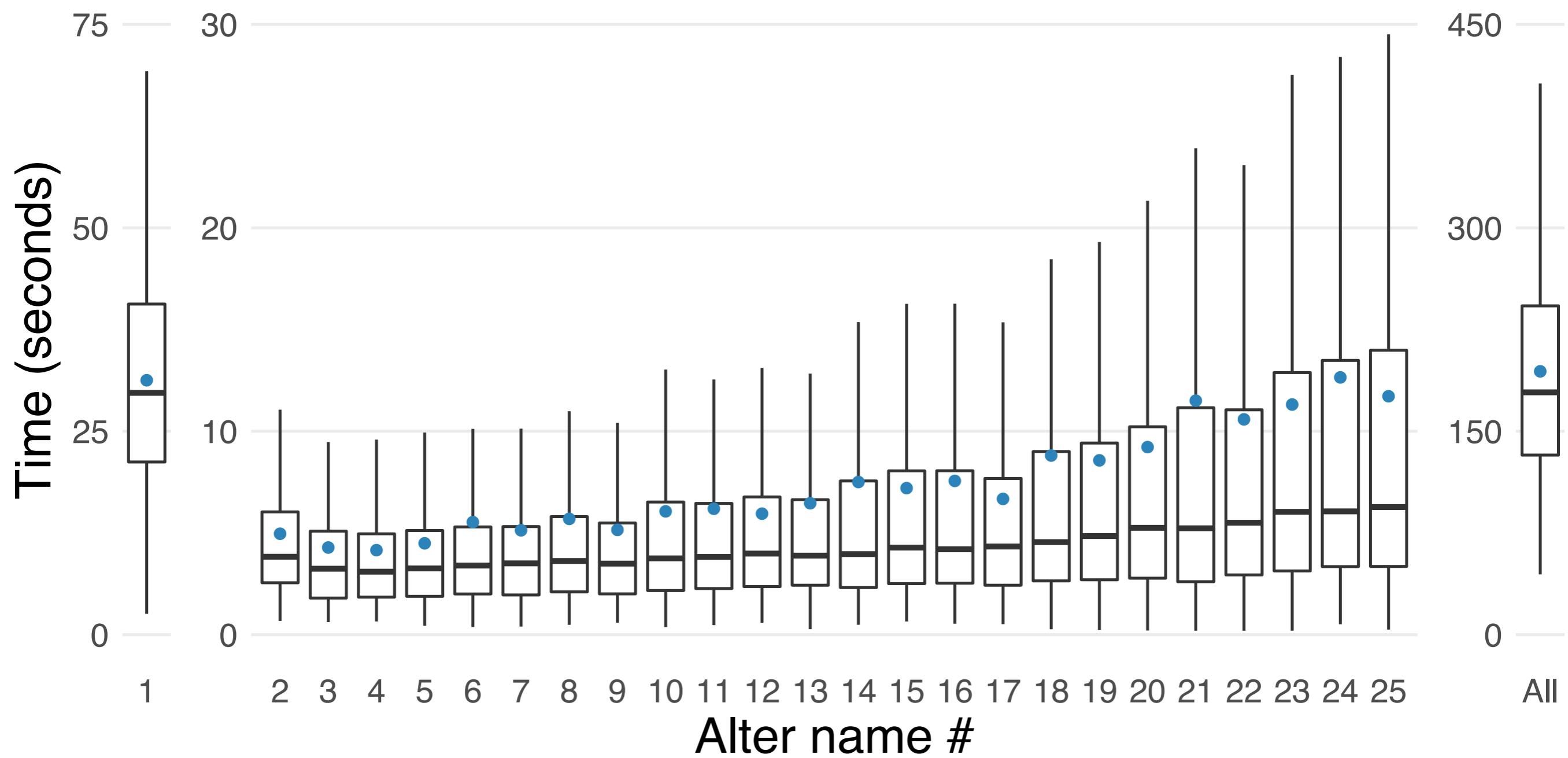
**Listing the last alters took about twice as long as listing  
the first alters, but still only about 10 seconds**

N = 654



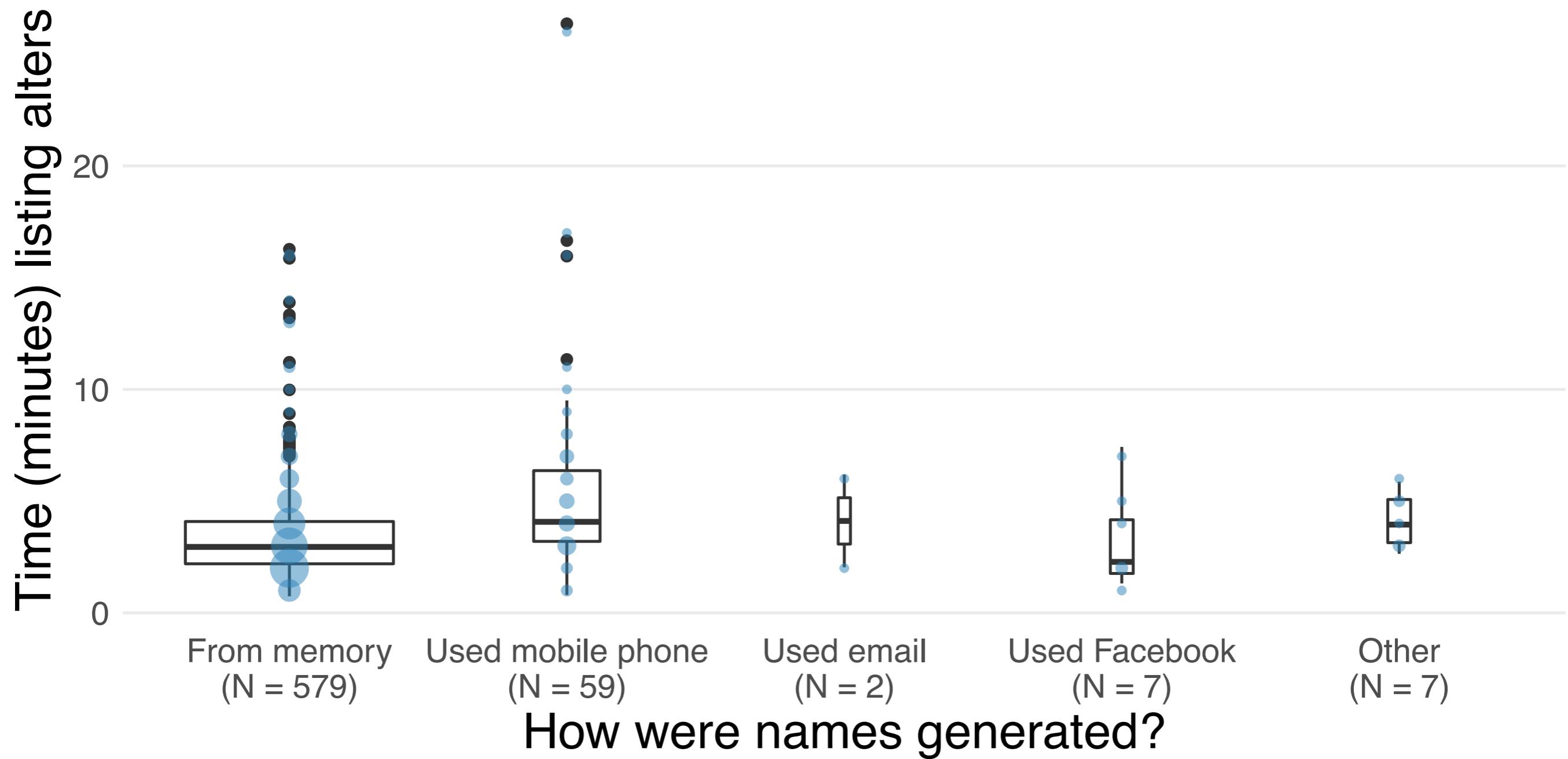
**Listing all 25 alters took around 3.5 minutes**

N = 654



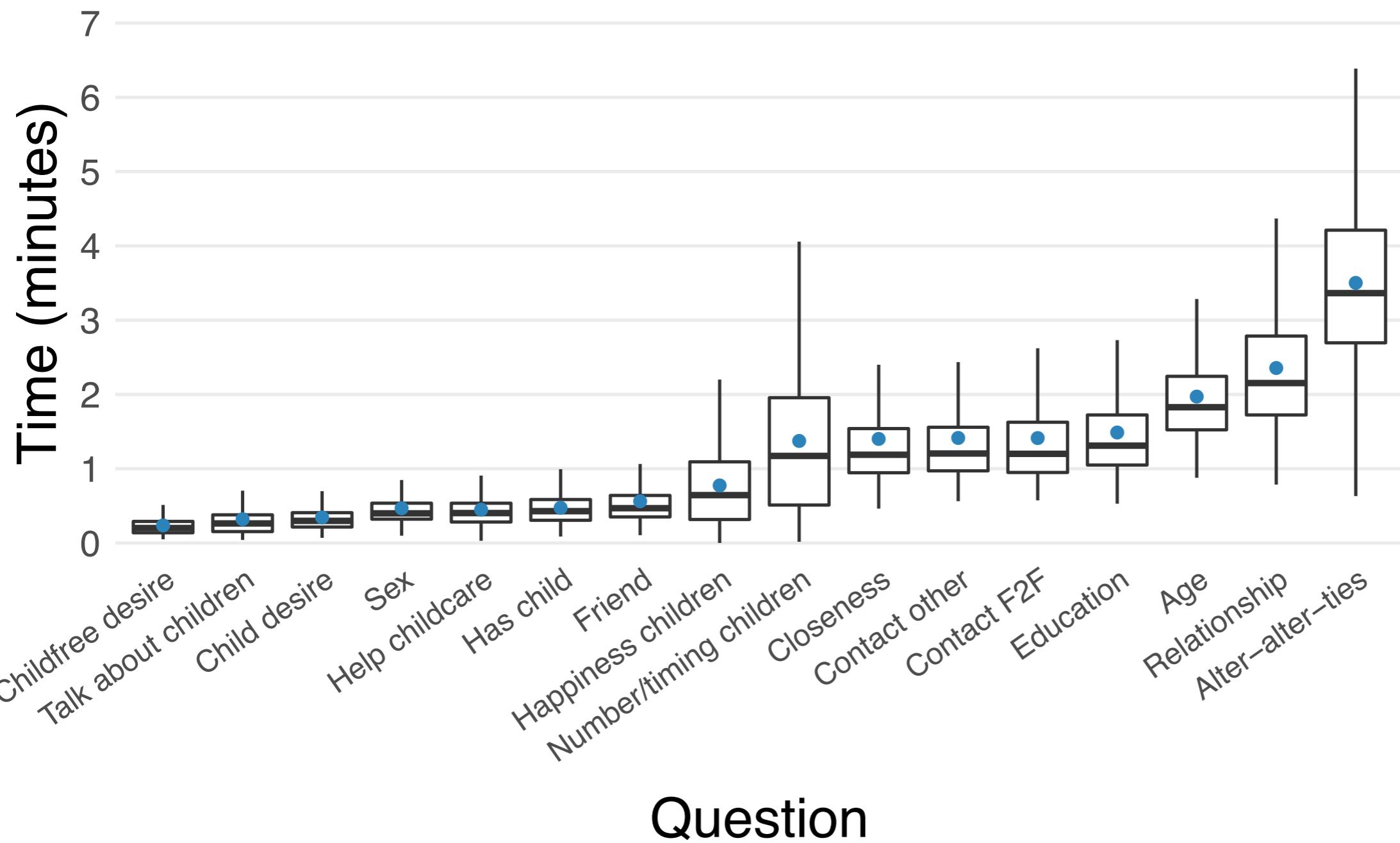
**Most people (89%) listed alters on the basis of their memory; those that did not were slightly slower**

N = 654



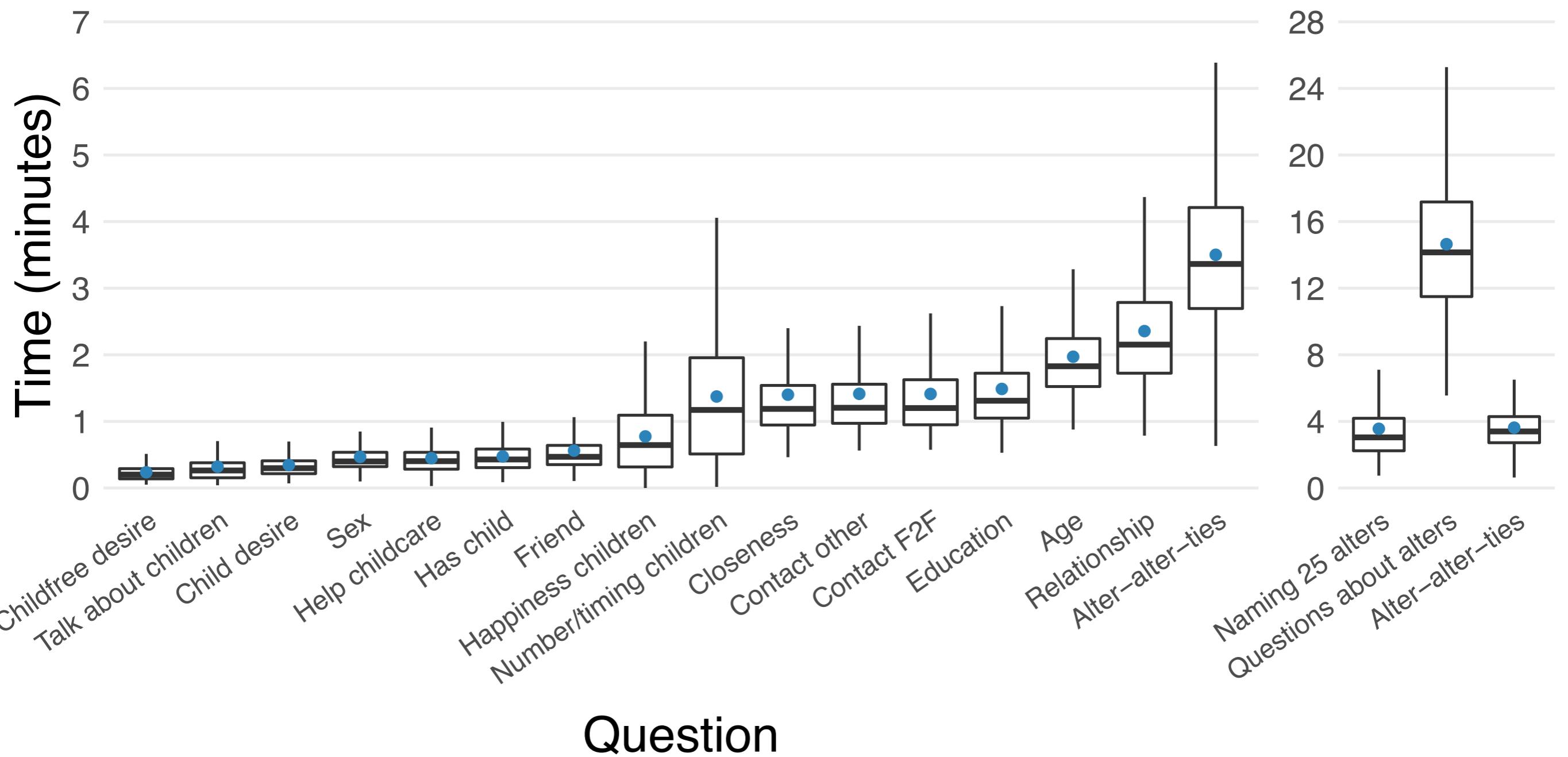
Yes/no questions were fast (< 30 seconds), questions about age and relationship were slower (> 2 minutes)

N = 654



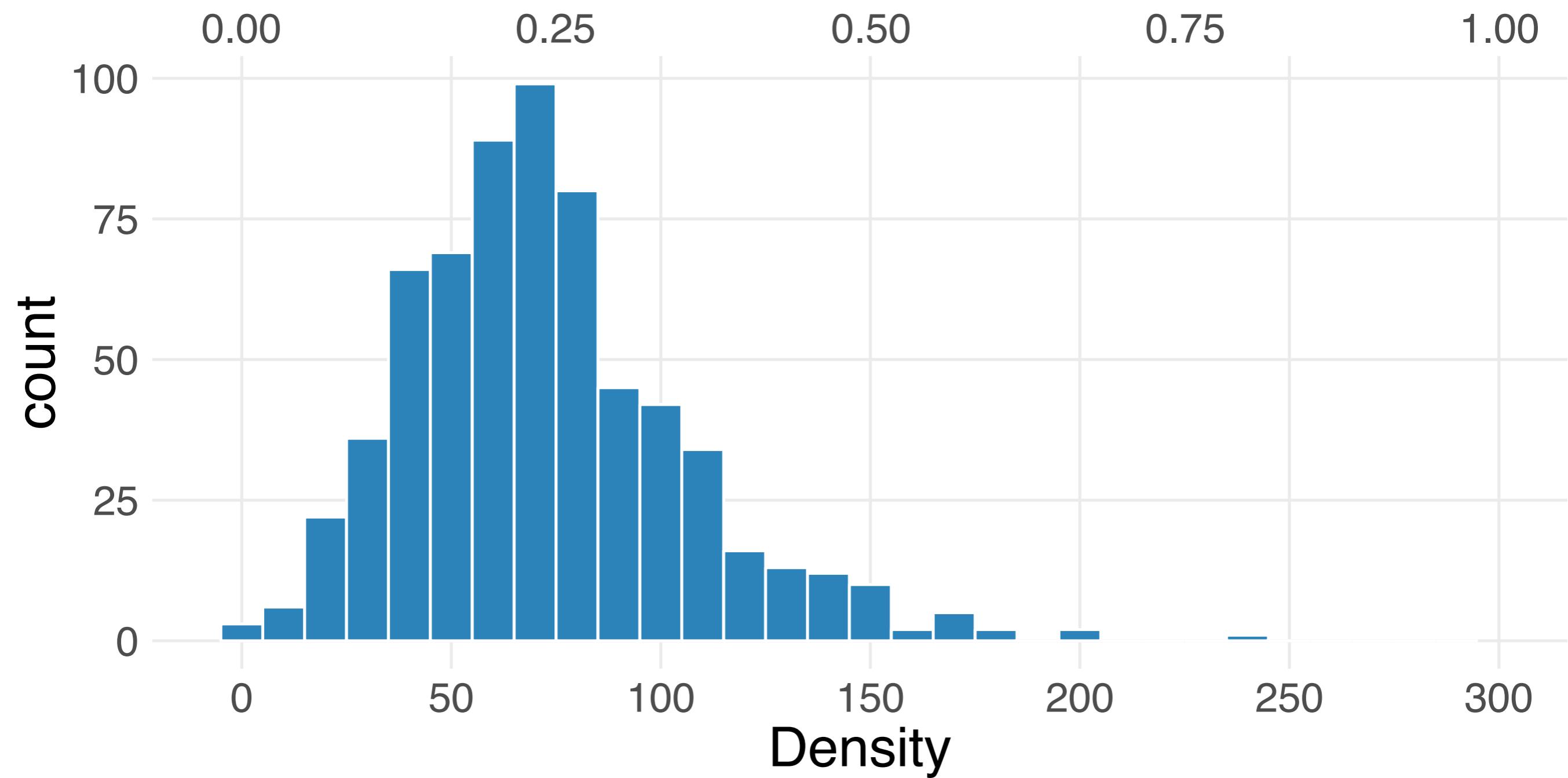
**Listing all alter-alter-ties took on average 3.5 minutes,  
responding to all alter-question 15 minutes**

N = 654

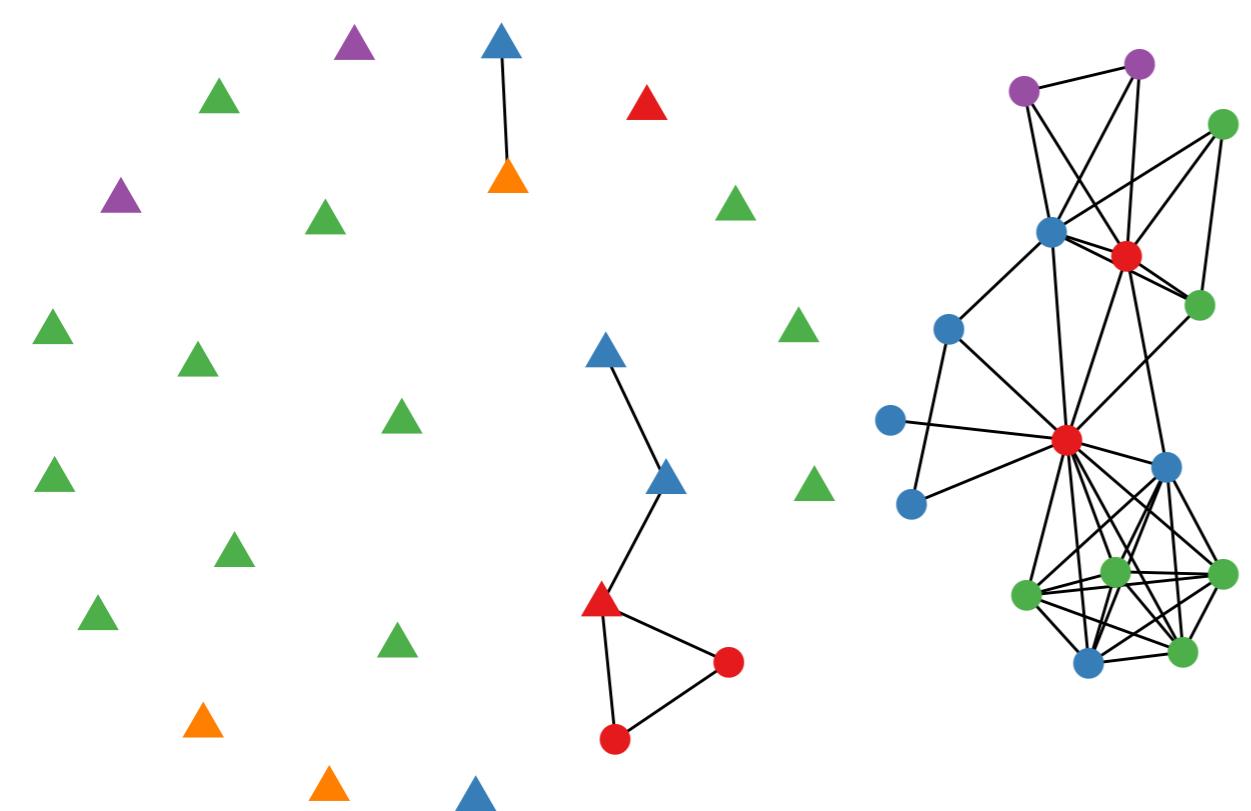


The median density was 23% (69 ties) and the maximum density 81% (242)

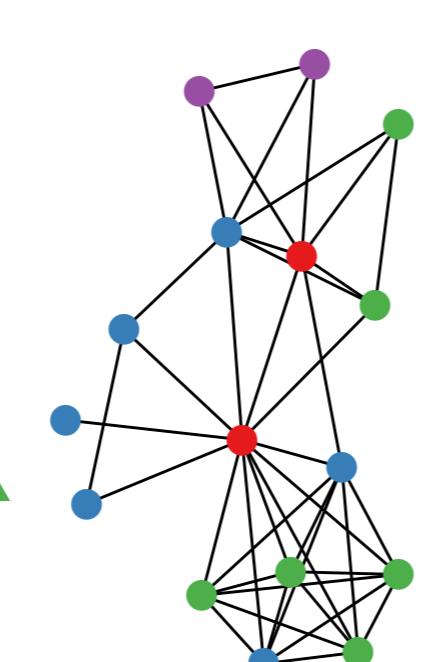
N = 654



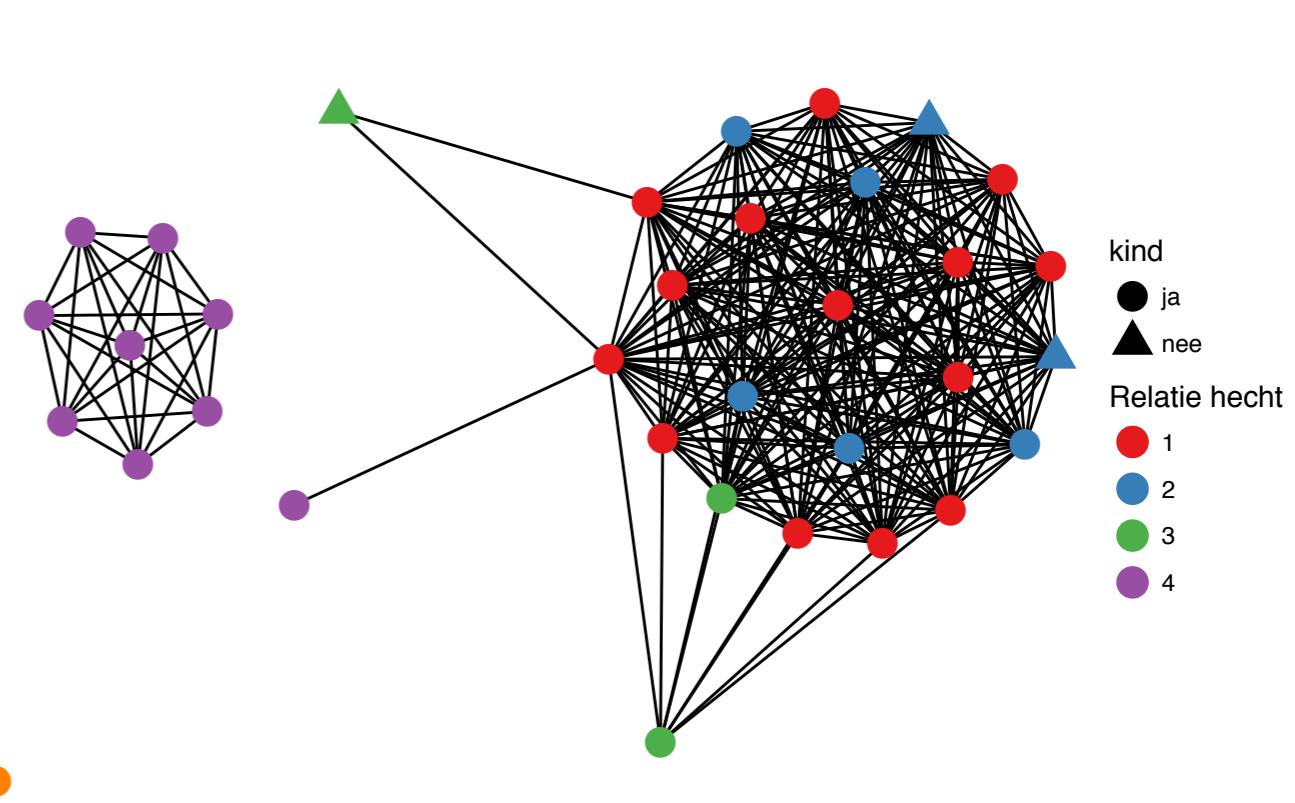
**Density = 6 (2%)**



**Density = 69 (23%)**

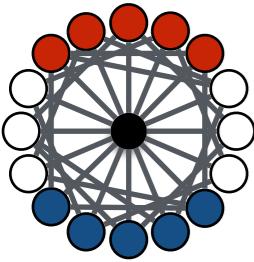


**Density = 242 (81%)**



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4



# CONCLUSION

- Collecting large personal networks feasible
  - Not too time-consuming
  - Little missing data
  - Data quality?
- GENSI useful for large(r) networks
  - Improved user experience?
- Valuable data