

Giving **Meaning** to Social Networks: Methodology for Conducting and Analyzing **Interviews** based on **Personal Network Visualizations**

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The power of visualizations

- ▶ I find it convenient to talk of a social field of this kind as a **network**. The **image** I have is of a set of points some of which are joined by lines. The points of the image are people, or sometimes groups and the lines indicate which people interact with each other. We can of course think of the **whole of social life** as generating a network of this kind. (Barnes, 1954)



The power of visualizations

- ▶ The power of visualization lies in the fact that it allows the **conversion of quantitative information to qualitative and vice versa**.
- ▶ Thus it is possible to **communicate** the structural features of social networks to **informants**, to communicate between **researchers** with different qualitative/quantitative backgrounds and to **explore new models** about the social world.



From our experience ...

Research phase	Collections of personal network visualizations	Meta-representations of personal networks
Data-Collection	Narratives	-
Data-Analysis	Visual typologies	New hypothesis / models

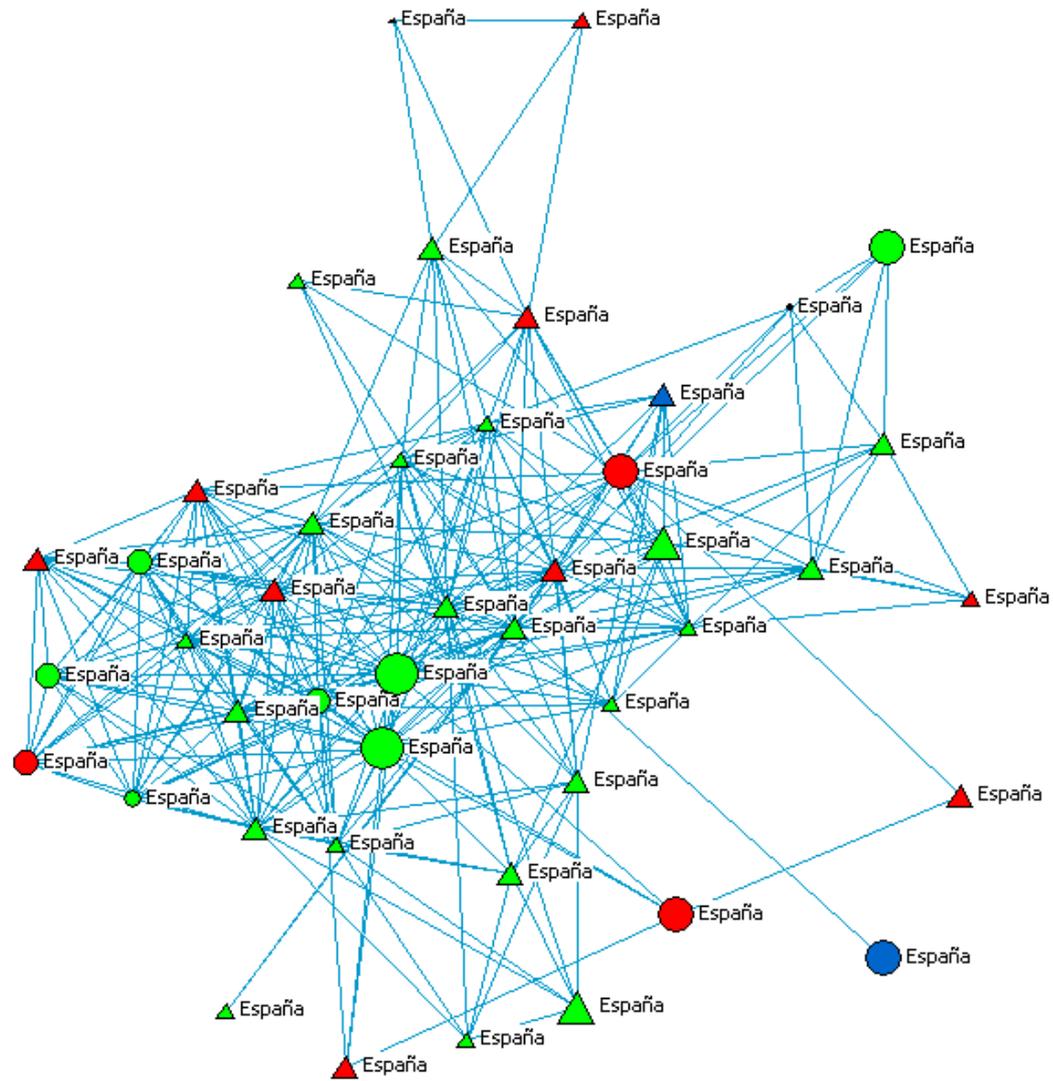


What do we mean by “visualizing personal networks”?

- ▶ The visualization of personal networks is a given combination of compositional and structural features shown **through visual variables** (position, size, color, shape, connections, labels).
- ▶ **Assigning** visual variables to compositional or structural variables describing the personal networks, it is possible to interview the informant with different representations of her social world and get **narratives** about it.

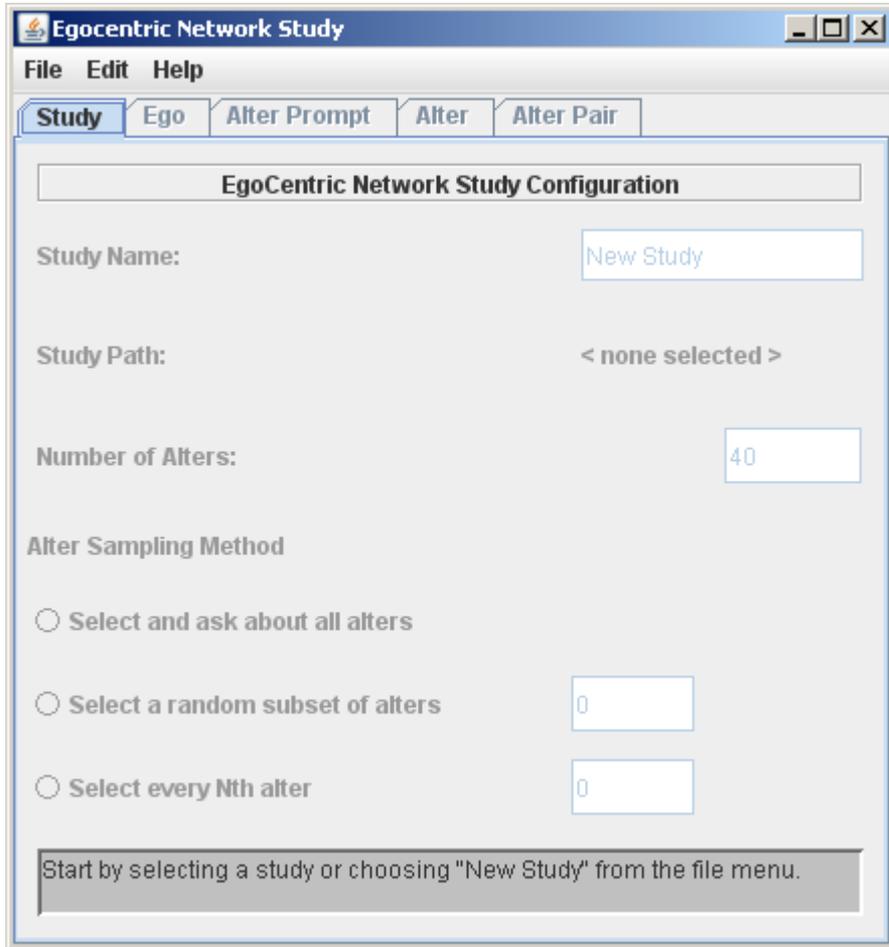


España



España

Visualizations during the data collection (i)



The screenshot shows a software window titled "EgoCentric Network Study" with a menu bar (File, Edit, Help) and tabs (Study, Ego, Alter Prompt, Alter, Alter Pair). The "Study" tab is active, displaying the "EgoCentric Network Study Configuration" dialog. It includes fields for "Study Name" (containing "New Study"), "Study Path" (containing "< none selected >"), and "Number of Alters" (containing "40"). Under "Alter Sampling Method", there are three radio button options: "Select and ask about all alters", "Select a random subset of alters" (with a "0" input field), and "Select every Nth alter" (with a "0" input field). A footer note reads: "Start by selecting a study or choosing 'New Study' from the file menu."

EgoNet Author

[Ego] *Information about Ego.*

[Alter Prompt] *Flexible name generator.*

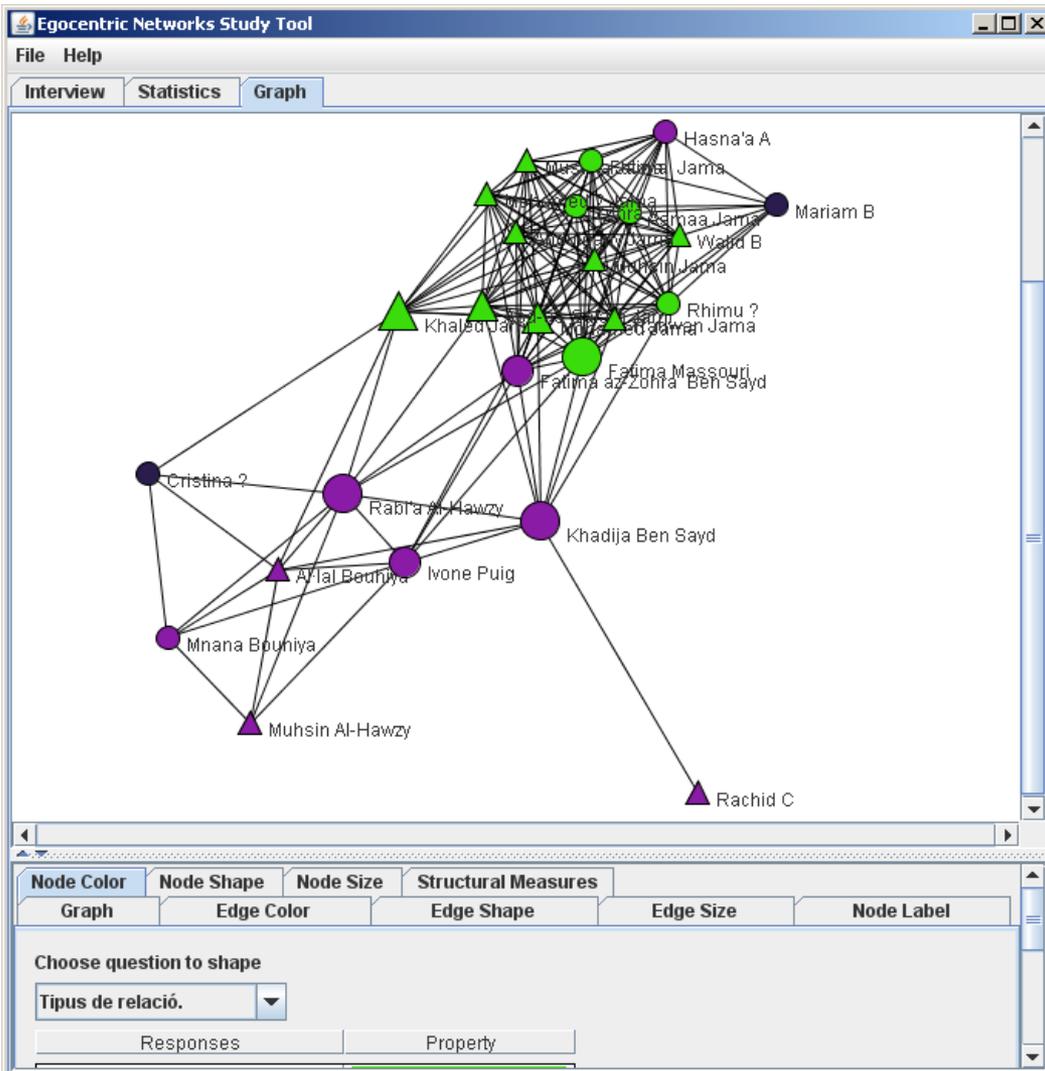
- ▶ “Please, give us the names of **XX** persons you know and who know you by sight or by name, with whom you have had some contact in the past two years, either face-to-face, by phone, mail or e-mail, and whom you could still contact them if you had to”.

[Alter] *Information about alters nominated by ego.*

[Alter Pair] *Alter-alter relationship.*

- ▶ “**XX** and **XX** knows each other?” or “**XX** and **XX** would meet independently of you?”

Visualizations during the data collection (ii)



EgoNet Client

Structural questions:

- ▶ Do you think that this representation of your personal network is accurate?
- ▶ Could you identify some groups of people?
- ▶ Who are those alters with more centrality?
- ▶ Why these alters are isolated?

Compositional and structural questions:

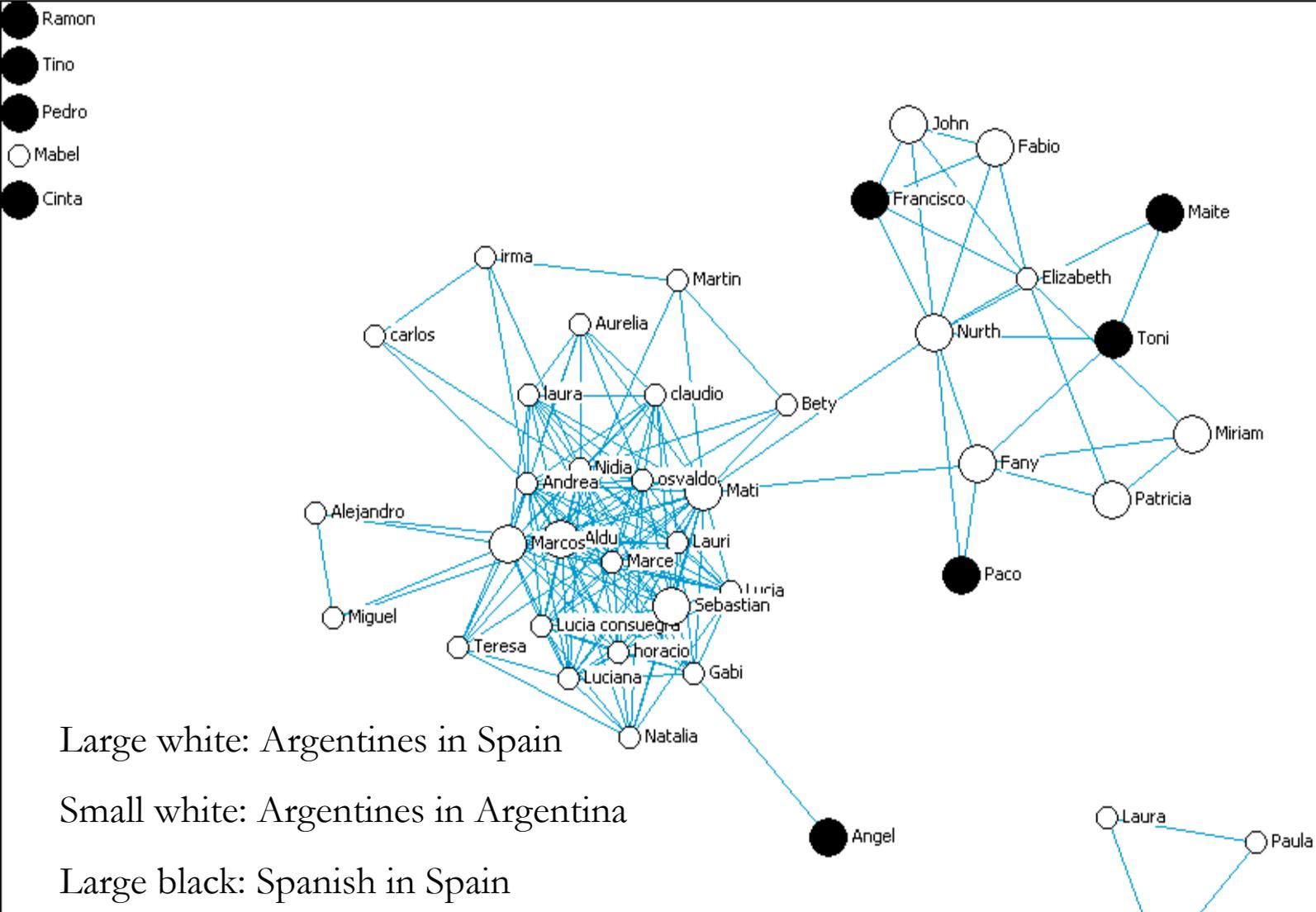
- ▶ Tell us about those central alters living in Spain ...
- ▶ This group of Catalan women ... who are they?
- ▶ Your group of co-workers ... all them are Amazigh?

Getting narratives and reasons about change ...

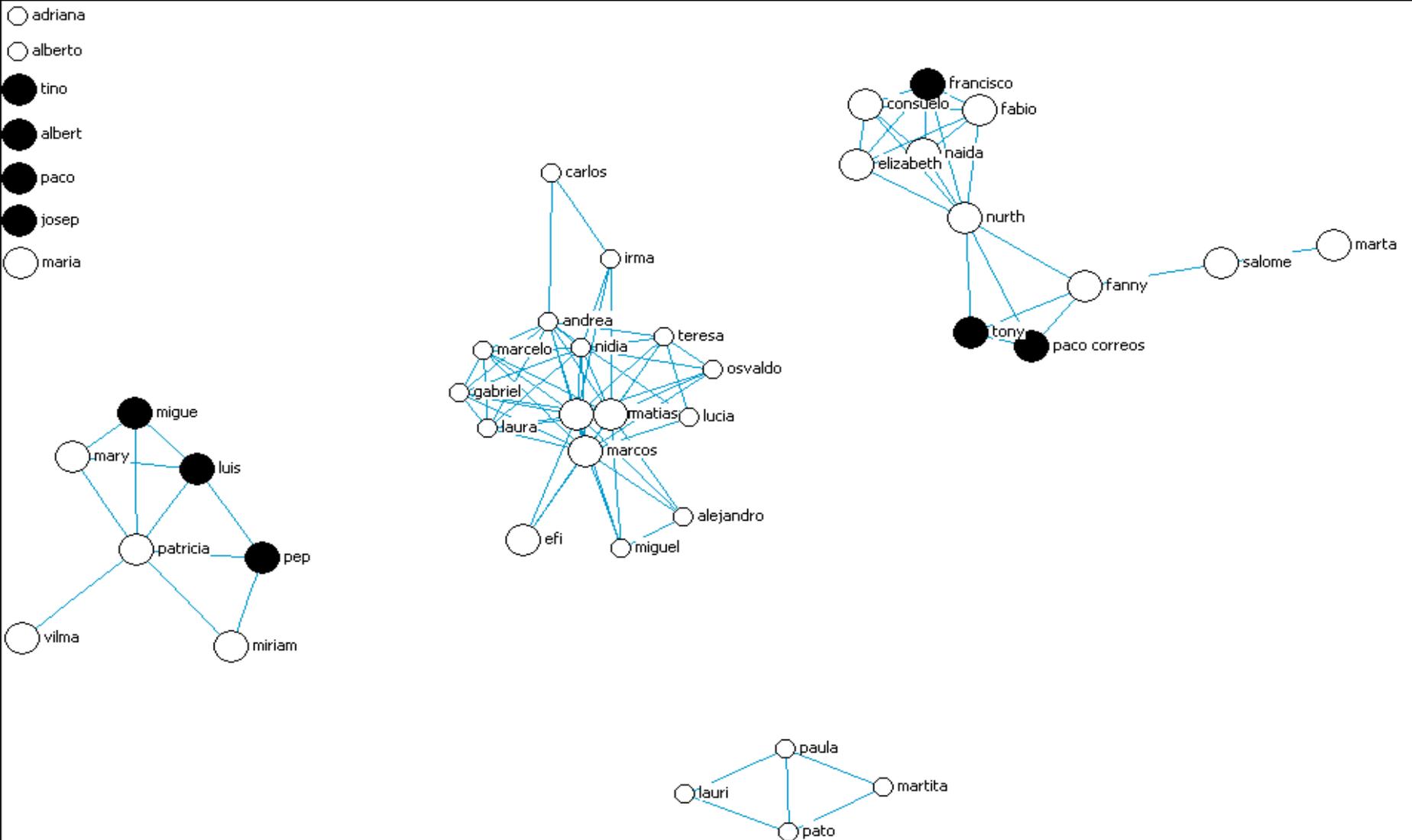
- ▶ When **two or more waves** are available the sequential combination of structural and compositional information in visual variables can add a temporal dimension:
 - ▶ Changes in **people** (new people).
 - ▶ Changes in **structure** (new groupings, new isolates).
 - ▶ Change in **compositional variables** (new values of variables, as for instance, changes in the country of residence).



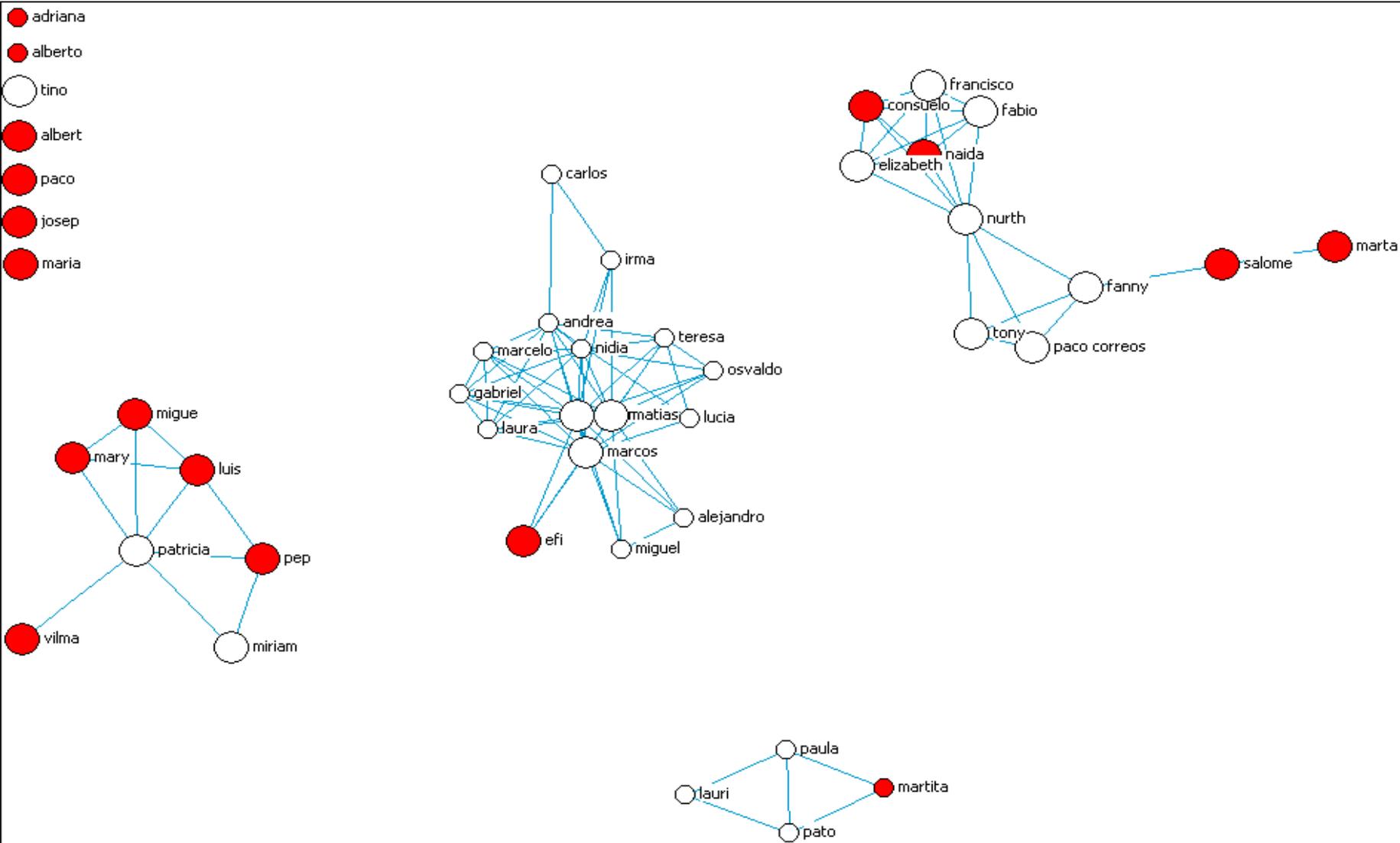
The network of Norma in the first wave (2005)



The network of Norma in the second wave (2007)



The network of Norma in the second wave (new alters in red)

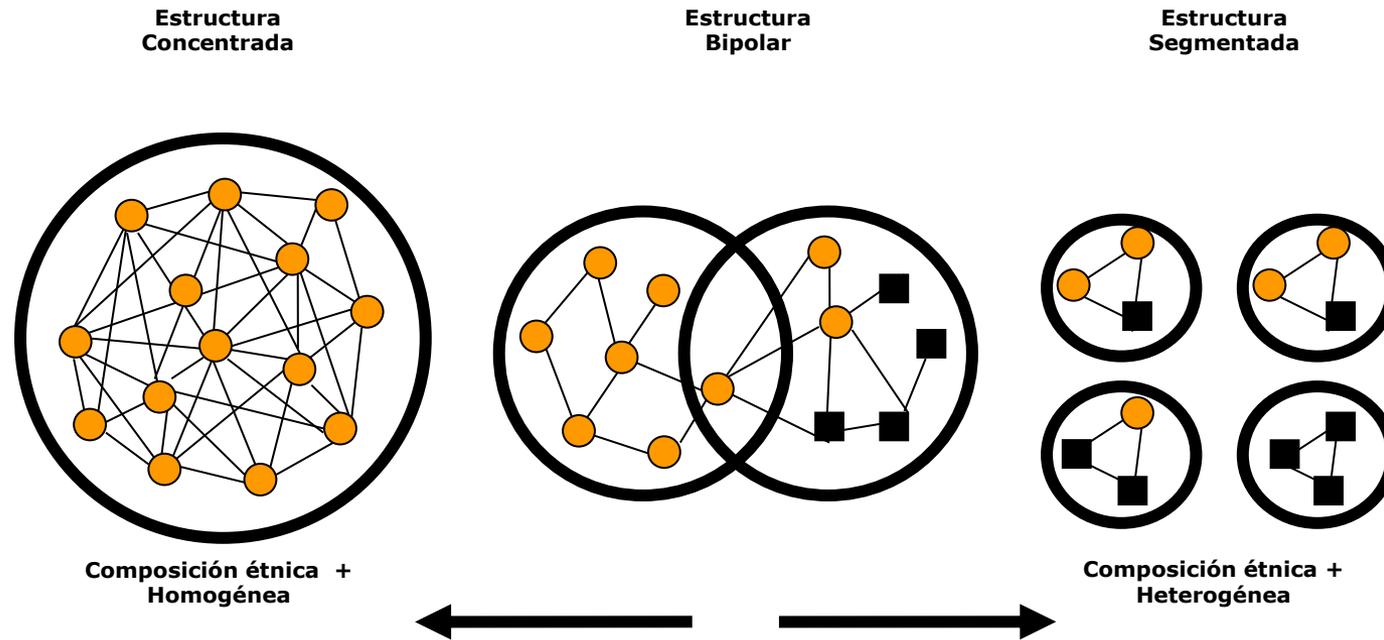


Visualization during **Data analysis**

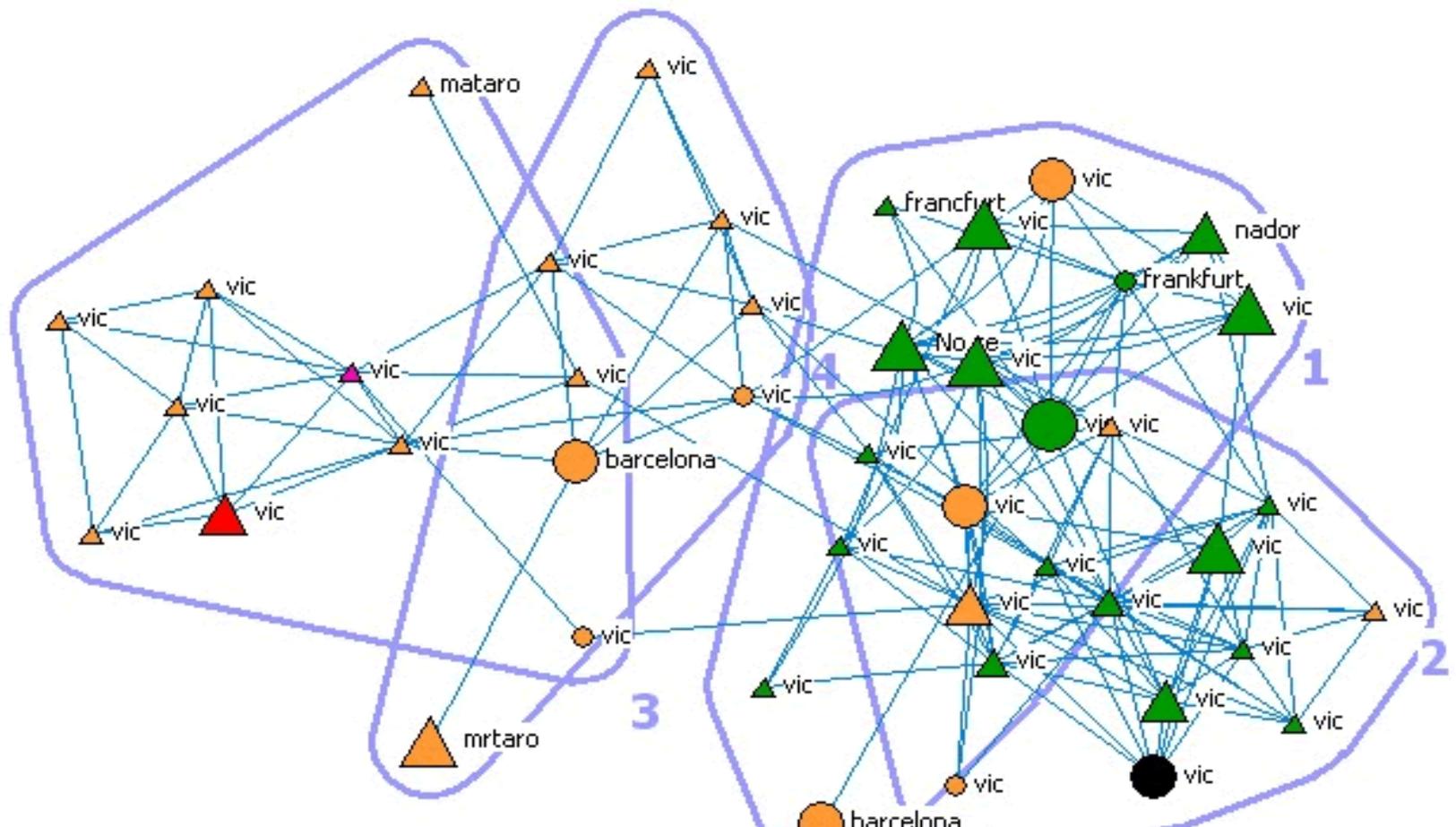
- ▶ Personal network typologies ...
- ▶ Meta-representations of personal networks ...
- ▶ Model developing ...



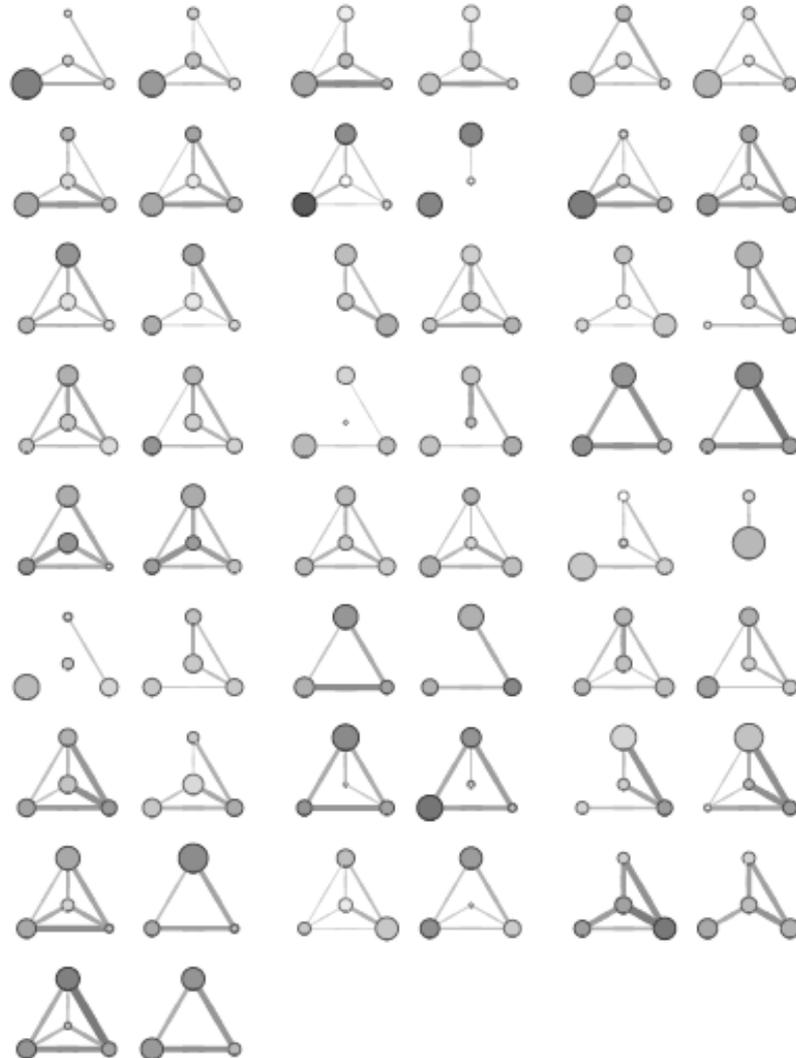
Personal network typologies ...



Metavisualizations for making comparisons ...



25 people interviewed twice ...

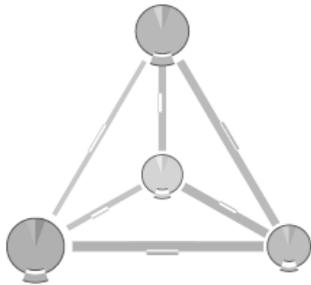


Meta-representations of personal networks

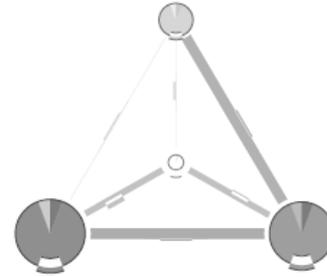
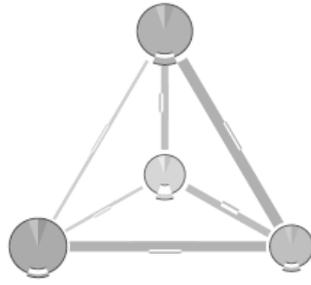
- ▶ If meta-representations of personal networks are available, then the analyst can **anticipate** information about the interview and thus confront the narratives with the clustered graphs.



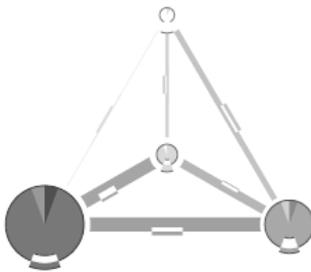
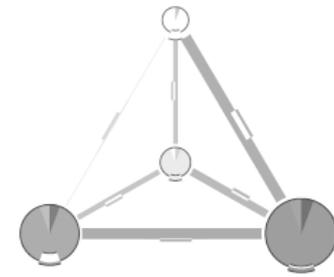
Comparing communities ...



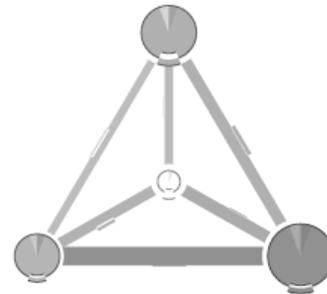
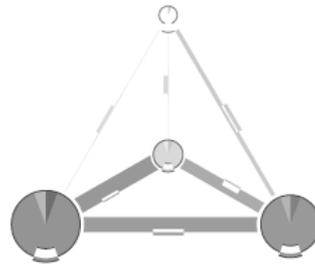
Argentina (n= 25)



República Dominicana (n=13)



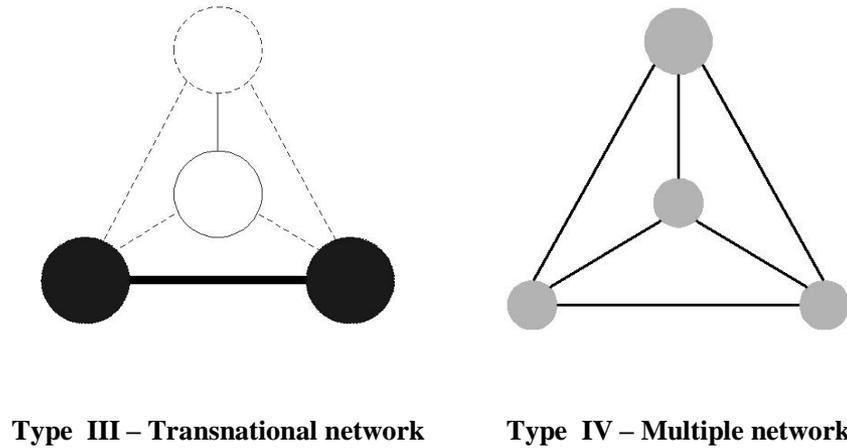
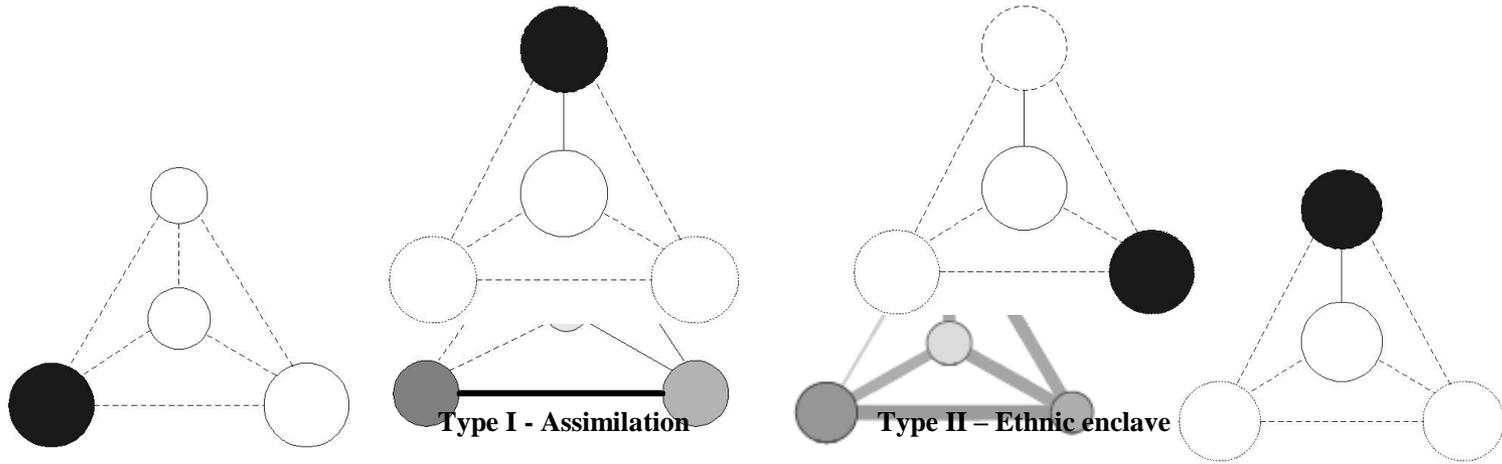
Senegal y Gambia (n=16)



Marruecos (n=13)



Developing visual models



But ...

- ▶ A final caveat. So far visualizations and narratives cannot capture by themselves all the effects observed in the data collected. For instance, thanks to the SIENA model (Snidjers et al. 2008, Snidjers, 2005) we found for instance that **transitivity** between the existing clusters of acquaintances is an important effect in the alter-alter pattern of change (Lubbers et al. 2008). **This effect cannot be directly observed in the personal network visualizations because it is an emergent property of the network beyond the cognition of their actors.**
 - ▶ So, a **mixed methods approach are needed.**
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Thanks!

