

# Social Networks: Itza', Ladinos, Q'eqchi'

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I ran our model for discovering clusters in relational data on three of the networks described in *The Cultural Mind*. Unlike the analysis in the paper, I used the raw relational data which is asymmetric — if *A* mentions *B* as an associate there is no guarantee that *B* will mention *A*.

The results are shown in Figure 1, where the row and column labels correspond to the lists of people given below. The results for the Itza' and the Ladino are consistent with the analysis given in the paper: the model finds two main groups for each, and the division in the Ladino network corresponds perfectly to gender.

The model finds two groups in the Q'eqchi' data, which correspond well (but not perfectly) to gender. It appears that women are more likely to name men than vice versa.

Our model deals with symmetric data in a principled way but I have not implemented that feature yet, which is why I do not include an analysis of the symmetric data. I could run the existing code on data that just happens to be symmetric, but it is likely to discover more classes than the data really warrant.

Itza':

		Sex	Age	Cul	Res	Occ
1	Teresa Ramos	0	67	2	0	0
2	Iluminda Chayax	0	55	2	0	0
3	Silveria Chayax	0	38	1	0	0
4	Isabel Cohouj	0	63	2	0	0
5	Oralia Cortez Cohuoj	0	44	1	0	0
6	Fausto Cortez Cohuoj	1	37	1	0	1;3
7	Maria Colli	0	60	2	0	0
8	Modesto Huex Tes.	1	55	2	0	1;4
9	Julio Tut Cohuoj	1	57	2	0	1;2
10	Alejandro Tes. Huex	1	80	2	0	1;2
11	Pastora Zacal Chuk	0	67	2	0	0
12	Sobeida Cohuoj Zacal	0	38	1	0	0
13	Evaristo Zacal Tes.	1	46	1	0	1;2;5
14	Petrona Vitzil Tes.	0	69	2	0	0
15	Senaido Zac Vitzil	1	35	0	0	9
16	Angelina Zac Vitzil	0	44	0	0	0
17	Eugenia Cahuich Tes	0	64	2	0	0
18	Gloria Tesucun Cahu	0	42	1	0	0
19	Francisco Zacal Mis	1	77	2	0	1;9
20	Jorge Zacal Tes.	1	50	1	0	1;2;9
21	Julian alcalde T. T.	1	34	0	0	9
22	Julian Tes. Chan	1	65	2	0	1;2;9
23	Rudolfo Cahuich Tes.	1	74	2	0	1;2;7
24	Reginaldo Chayax	1	57	2	0	1;2;4
25	Basilio Colli Cohuoj	1	67	2	0	1;2
26	Crecencio Cortez Tes	1	69	2	0	1;2
27	Jose G. Cortez Tes.	1	34	1	0	1;3
28	Alvaro Tes. Vitzil	1	72	2	0	1;2
29	Felipe Batab Suntec.	1	79	2	0	1;2;9
30	Rosa Batab Xikan	0	50	1	0	0

Ladinos:

	Sex	Age	Cult	Res	Occ
1 Vidal Tzae	1	27	0	1	1
2 William Garcia	1	33	0	1	1
3 Vidal Diaz	1	37	0	1	1;9
4 Margarito Reyes	1	55	0	1	1;9
5 Otoniel Belis	1	20	0	1	4
6 Alberto Tzae	1	60	0	1	1
7 Clemente Barrera	1	67	0	1	9
8 Roberto Ruano	1	60	0	1	1
9 Angel Diaz	1	60	0	1	1
10 Anibal Cacao	1	26	0	1	1
11 Hanibal Diaz	1	35	0	1	1
12 Adrian Upung	1	35	0	1	1;9
13 Armando Belis	1	30	0	1	1
14 Virgilio Fuentes	1	50	0	1	1;8
15 Don Valentin	1	30	0	1	9
16 Dario Escalante	1	60	0	1	1;9
17 Julia de Soto	0	39	0	1	0
18 Natividad de reyes	0	46	0	1	0
19 Candida Vasquez	0	63	0	1	0
20 Paula de Giron	0	47	0	1	0
21 Marta de Belis	0	62	0	1	8
22 Juana Ruano	0	25	0	1	0;9
23 Silvia Martinez	0	26	0	1	0
24 Reina de Televina	0	40	0	1	0
25 Erlinda de Ramirez	0	42	0	1	0
26 Lupe Morales	0	59	0	1	0
27 Cecilia Geronimo	0	53	0	1	0
28 Virginia Lopez	0	40	0	1	0
29 Julian Tesucun	1	34	1	0	9

Q'eqchi':

		Sex	Age
1	Dona Luisa	0	29
2	Don Jose1/Chalau	1	60
3	Dona Candelaria	0	50
4	Don Mayo	1	54
5	Dona Maria de Pablo	0	51
6	Dona Elvira	0	45
7	Vicente2' mother	0	50
8	Domingos mother	0	63
9	Dona Elena	0	29
10	Vicente2' wife	0	27
11	Jose Tec	1	60
12	Don Domingo	1	33
13	Don Vicente1 Tec	1	50
14	Don Santiago	1	50
15	Don Manuel	1	45
16	Don Melesio	1	
17	Don Mateo	1	35
18	Don Elario	1	31
19	Don Migel1	1	28
20	Don Alberto	1	34

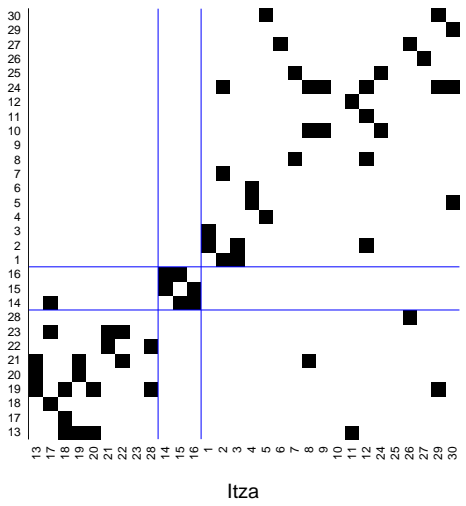
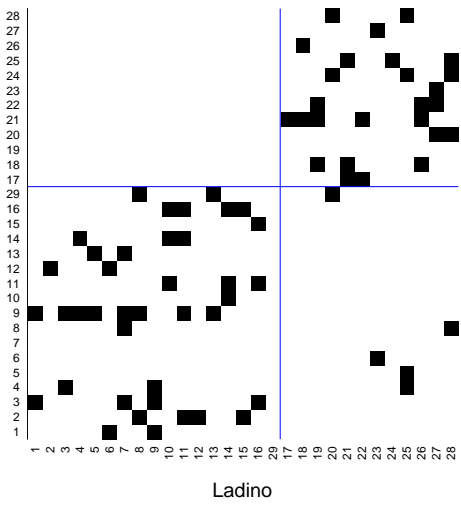
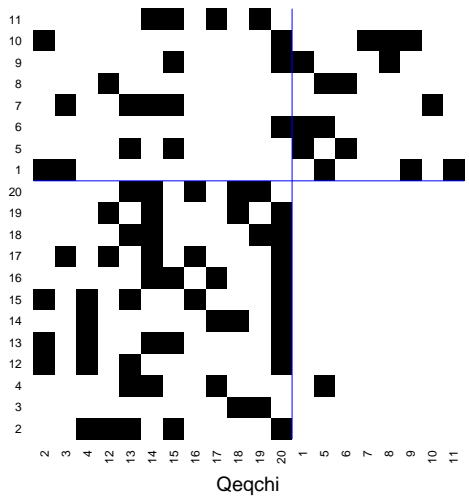


Figure 1: Social networks (asymmetric) sorted according to the classes found by the IRM