

Supplemental Material

Inequality belief systems: what they look like, how to study them, and why they matter

In this file we report additional analyses for the paper “Inequality belief systems: what they look like, how to study them, and why they matter”. We report a list of tables and figures at the beginning of the file, and we plot them in order at the end of this summary.

Table of contents

- **Descriptives:** The master table shows the label and the survey question of each attitude reported in the analyses. Table 2 and Table 3 show the descriptives of these items in US and NL respectively. High values always indicate endorsement of each attitude. Table 4 and Table 5 show the descriptives of the sociodemographic control variables in US and NL respectively.
- **Cronbach’s alpha:** Table 6 reports the reliability of the indexes views, factors and identites, adopted in the regression models of Section 4.4 (Table 2: Linear regression models on support for redistribution - US; Table 3: Linear regression models on support for redistribution - NL). Indexes views and identities are reliable across countries. Index factors display low alphas instead. This is not surprising, as this indexes feature the node `a_merit`. As described in the article, this node produce several changes between belief system of the NL and US population. Therefore, these low scores underline that full sample analysis might be misleading if not taking into account the structural heterogeneity of survey samples. We decided to work with these variables, despite their low reliability, as indexes were computed only to reduce data to fit the regression models of Section 4.4, which needed to account for the content of people’s belief systems.
- **Linear regression models on attitude toward redistribution:** Table 7 and Table 8 report the full set of coefficients of the linear regression models for attitude toward redistribution, presented in an abbreviated form in Section 4.4 (Table 2: Linear regression models on support for redistribution - US; Table 3: Linear regression models on support for redistribution - NL).
- **Robustness of EGA:** To detect the robustness of EGA results we adopt parametric bootstrap technique. For each network shown in the article, we re-sample with replacement 2000 bootstrapped samples. Then, we re-estimate EGA on each of the 2000 bootstrapped samples. This allow us to compare the results of the EGA fitted on the original sample with the average results of obtained in the bootstrapped samples. Moreover, we are also able to estimate the stability of the community detection algorithm, by examining the extent to which each empirically derived dimension is exactly recovered from the replicate bootstrap samples. In the article we estimated six network structures: one for each CCA cluster (two in US, two in NL) and one for each country. For each of these six network we report two figures. First, we compare the network structures retrieved in the original samples with the average structures obtained by aggregating the results of the bootstrapped samples. Effectively, this results in a figure comparing the original networks shown in the article and the average network obtained in the bootstrapped samples. Moreover, we report a plot showing how often the membership of each variable is replicating across bootstraps. Regarding this plot, item scores greater than 0.70 reflect sufficient stability (Christensen & Golino, 2021). Results are shown in Figures 1 to Figures 12. Overall, the sample and bootstrapped EGAs are always similar, and community detection results are robust and overcome the bootstrap robustness tests. The only exceptions to these patterns are the nodes `e_people`, and `e_weafam` in the `US2` network, and the node `a_merit` in the `US1` and `US2`.

networks. These nodes change their community membership across bootstrapped samples. However, the results regarding the number of communities of US1 EGA is highly stable. Indeed, 1946 of the 2000 bootstrapped samples displayed 3 clusters; only 1 bootstrapped sample displayed 2 clusters, and only 53 samples produced 4 communities. Moreover, the edges of the sample and bootstrapped networks do not differ meaningfully. This entails that the instability of this network is due to the community membership of some of its node, and not to its edges. Since our analyses of the four belief system mainly focused on the latter, and utilized nodes' community membership as a descriptive tool, we are not concerned with this kind of instability. Instability at the community membership level would be a concern only for the full sample networks. Indeed, these communities dictated the formation of the indexes for the regressions of Section 4.4. However, these results are remarkably stable (item stability always higher than .74 in NL, and higher than .96 in US).

Tables and Figures

Table 1: Master table

Label	Question
p_income	To what extent do you agree or disagree with the following statements? Differences in income in the United States are too large
p_wealth	Differences in wealth in the United States are too large
p_poor	Children in poor families do not have the same opportunities for getting ahead as children in rich families
p_black	Black children do not have the same opportunities for getting ahead as white children
e_weafam	This question is about factors that may be important for achieving economic success. How important would you say is coming from a wealthy family
e_edupar	Having highly educated parents
e_edu	Having a good education
e_work	Hard work
e_people	Knowing the right people
e_race	Race or skin color
e_migra	Legal or immigration status
e_relig	Religion
e_sex	Being born a man or woman
a_merit	To what extent do you agree or disagree with the following statements? Society is fair when hard-working people earn more than others
a_diversity	Racial diversity makes America stronger
a_equality	For society to be fair, differences in people's standard of living should be small
att_redist	It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes

Table 2: Descriptives of attitudes in US

Statistic	N	Mean	St. Dev.	Min	Max
p_income	2,501	5.740	1.401	1	7
p_wealth	2,501	5.897	1.417	1	7
p_poor	2,501	5.979	1.361	1	7
p_black	2,501	5.329	1.703	1	7
e_weafam	2,501	3.512	0.980	1	5
e_edupar	2,501	3.413	0.932	1	5
e_edu	2,501	4.052	0.789	1	5
e_work	2,501	4.040	0.962	1	5
e_people	2,501	3.859	0.925	1	5
e_race	2,501	2.910	1.182	1	5
e_migra	2,501	3.569	1.073	1	5
e_relig	2,501	2.004	1.031	1	5
e_sex	2,501	2.720	1.166	1	5
a_merit	2,501	4.908	1.408	1	7
a_diversity	2,501	5.748	1.454	1	7
a_equality	2,501	4.891	1.579	1	7
att_redist	2,501	4.961	1.844	1	7

Table 3: Descriptives of attitudes in NL

Statistic	N	Mean	St. Dev.	Min	Max
p_income	1,618	5.012	1.420	1	7
p_wealth	1,618	5.182	1.414	1	7
p_poor	1,618	5.231	1.355	1	7
p_black	1,618	4.630	1.511	1	7
e_weafam	1,618	2.867	0.867	1	5
e_edupar	1,618	3.179	0.762	1	5
e_edu	1,618	3.691	0.714	1	5
e_work	1,618	3.706	0.789	1	5
e_people	1,618	3.485	0.778	1	5
e_race	1,618	2.499	0.956	1	5
e_migra	1,618	2.606	0.923	1	5
e_relig	1,618	1.844	0.761	1	5
e_sex	1,618	2.205	0.892	1	5
a_merit	1,618	3.391	1.605	1	7
a_diversity	1,618	3.704	1.580	1	7
a_equality	1,618	4.379	1.498	1	7
att_redist	1,618	5.039	1.474	1	7

Table 4: Descriptives of sociodemographic variables in US

Variable	Stats / Values	Freqs (% of Valid)	Valid
gender [factor]	1. Female 2. Male 3. Other	1268 (50.7%) 1212 (48.5%) 21 (0.8%)	2501 (100.0%)
age [factor]	1. 18-27 2. 28-37 3. 38-47 4. 48-57 5. 58+	515 (20.6%) 557 (22.3%) 416 (16.6%) 337 (13.5%) 676 (27.0%)	2501 (100.0%)
origin [factor]	1. Native-born 2. Foreign-born	2313 (92.5%) 188 (7.5%)	2501 (100.0%)
race [factor]	1. Other 2. White	690 (27.6%) 1811 (72.4%)	2501 (100.0%)
education [factor]	1. High school or less 2. Some college 3. College or more	278 (11.1%) 496 (19.8%) 1727 (69.1%)	2501 (100.0%)
work_status [factor]	1. Not employed 2. Employed	883 (35.3%) 1618 (64.7%)	2501 (100.0%)
household_income [factor]	1. Low 2. Medium 3. High	333 (13.3%) 1345 (53.8%) 823 (32.9%)	2501 (100.0%)
marital_status [factor]	1. Not married 2. Married	1328 (53.1%) 1173 (46.9%)	2501 (100.0%)
politics [haven_labelled, vctrs_vctr, double]	Mean (sd) : 3.9 (2.9) min < med < max: 0 < 4 < 10 IQR (CV) : 5 (0.8)	11 distinct values	2501 (100.0%)
religion [factor]	1. Catholic 2. Protestant 3. Other 4. None or not declared	503 (20.1%) 580 (23.2%) 485 (19.4%) 933 (37.3%)	2501 (100.0%)

Table 5: Descriptives of sociodemographic variables in NL

Variable	Stats / Values	Freqs (% of Valid)	Valid
gender [factor]	1. Female 2. Male 3. Other	842 (52.0%) 776 (48.0%) 0 (0.0%)	1618 (100.0%)
age [factor]	1. 18-27 2. 28-37 3. 38-47 4. 48-57 5. 58+	120 (7.4%) 159 (9.8%) 158 (9.8%) 273 (16.9%) 908 (56.1%)	1618 (100.0%)
origin [factor]	1. Native-born 2. Foreign-born	1478 (91.3%) 140 (8.7%)	1618 (100.0%)
race [factor]	1. Other 2. White	188 (11.6%) 1430 (88.4%)	1618 (100.0%)
education [factor]	1. High school or less 2. Some college 3. College or more	438 (27.1%) 175 (10.8%) 1005 (62.1%)	1618 (100.0%)
work_status [factor]	1. Not employed 2. Employed	913 (56.4%) 705 (43.6%)	1618 (100.0%)
household_income [factor]	1. Low 2. Medium 3. High	514 (31.8%) 1026 (63.4%) 78 (4.8%)	1618 (100.0%)
marital_status [factor]	1. Not married 2. Married	726 (44.9%) 892 (55.1%)	1618 (100.0%)
politics [haven_labelled, vctrs_vctr, double]	Mean (sd) : 5.2 (2.1) min < med < max: 0 < 5 < 10 IQR (CV) : 3 (0.4)	11 distinct values	1618 (100.0%)
religion [factor]	1. Catholic 2. Protestant 3. Other 4. None or not declared	191 (11.8%) 211 (13.0%) 36 (2.2%) 1180 (72.9%)	1618 (100.0%)

Table 6: Reliability of indexes - Cronbach's alphas

Index	Alpha_US	Alpha_NL
index_views	0.858	0.760
index_factors	0.457	0.512
index_identities	0.738	0.738

Table 7: Linear regression models on attitude towards redistribution - US

	M1-US	M2-US	M3-US
	Estimates	Estimates	Estimates
(Intercept)	2.53 *** (2.33 – 2.74)	-0.50 * (-1.00 – 0.00)	-0.63 ** (-1.15 – -0.10)
cca	1.65 *** (1.52 – 1.78)		0.10 (-0.03 – 0.23)
index_views		1.02 *** (0.97 – 1.08)	1.01 *** (0.95 – 1.06)
index_factors		-0.00 (-0.10 – 0.09)	0.03 (-0.08 – 0.13)
index_identities		0.20 *** (0.14 – 0.27)	0.18 *** (0.12 – 0.25)
genderMale		0.12 ** (0.02 – 0.21)	0.12 ** (0.02 – 0.21)
genderOther		-0.16 (-0.67 – 0.34)	-0.16 (-0.66 – 0.35)
age28-37		-0.11 (-0.25 – 0.04)	-0.11 (-0.25 – 0.04)
age38-47		-0.17 ** (-0.33 – -0.01)	-0.17 ** (-0.33 – -0.01)
age48-57		-0.59 *** (-0.76 – -0.43)	-0.60 *** (-0.76 – -0.43)
age58+		-0.66 *** (-0.81 – -0.52)	-0.67 *** (-0.81 – -0.52)
originForeign-born		0.01 (-0.17 – 0.19)	0.01 (-0.17 – 0.19)
raceWhite		-0.04 (-0.15 – 0.07)	-0.03 (-0.14 – 0.08)
educationSome college		0.09 (-0.08 – 0.26)	0.09 (-0.08 – 0.26)
educationCollege or more		0.07 (-0.09 – 0.23)	0.07 (-0.09 – 0.22)
work_statusEmployed		0.03 (-0.08 – 0.13)	0.03 (-0.08 – 0.13)
household_incomeMedium		-0.25 *** (-0.39 – -0.10)	-0.24 *** (-0.39 – -0.10)
household_incomeHigh		-0.23 *** (-0.40 – -0.07)	-0.22 *** (-0.39 – -0.06)
marital_statusMarried		0.11 ** (0.01 – 0.22)	0.11 ** (0.01 – 0.22)
politics		-0.07 *** (-0.09 – -0.05)	-0.07 *** (-0.09 – -0.05)
religionProtestant		-0.32 *** (-0.46 – -0.18)	-0.32 *** (-0.46 – -0.18)
religionOther		-0.22 *** (-0.37 – -0.07)	-0.22 *** (-0.37 – -0.07)
religionNone or not declared		-0.19 *** (-0.32 – -0.05)	-0.20 *** (-0.33 – -0.06)
Observations	2501	2501	2501
R ² / R ² adjusted	0.200 / 0.199	0.614 / 0.611	0.615 / 0.611
AIC	9606.196	7820.569	7820.155

* p<0.1 ** p<0.05 *** p<0.01

Table 8: Linear regression models on attitude towards redistribution - NL

	M1-NL Estimates	M2-NL Estimates	M3-NL Estimates
(Intercept)	2.96 *** (2.76 – 3.15)	0.59 * (-0.01 – 1.19)	-0.06 (-0.62 – 0.51)
cca	1.41 *** (1.29 – 1.54)		0.87 *** (0.76 – 0.97)
index_views		1.19 *** (1.11 – 1.27)	1.09 *** (1.01 – 1.16)
index_factors		0.05 (-0.05 – 0.16)	-0.01 (-0.11 – 0.09)
index_identities		-0.02 (-0.10 – 0.06)	-0.12 *** (-0.19 – -0.04)
genderMale		0.07 (-0.04 – 0.19)	0.04 (-0.07 – 0.14)
age28-37		-0.15 (-0.42 – 0.12)	-0.08 (-0.33 – 0.17)
age38-47		-0.02 (-0.30 – 0.26)	-0.01 (-0.27 – 0.24)
age48-57		0.01 (-0.24 – 0.27)	0.03 (-0.20 – 0.27)
age58+		0.01 (-0.23 – 0.25)	0.02 (-0.20 – 0.24)
originForeign-born		-0.15 (-0.36 – 0.07)	-0.11 (-0.31 – 0.09)
raceWhite		-0.09 (-0.28 – 0.11)	-0.10 (-0.28 – 0.09)
educationSome college		-0.44 *** (-0.63 – -0.25)	-0.38 *** (-0.55 – -0.20)
educationCollege or more		-0.29 *** (-0.42 – -0.16)	-0.25 *** (-0.37 – -0.13)
work_statusEmployed		-0.16 ** (-0.29 – -0.02)	-0.12 * (-0.25 – 0.01)
household_incomeMedium		0.06 (-0.07 – 0.19)	0.06 (-0.06 – 0.18)
household_incomeHigh		-0.56 *** (-0.84 – -0.28)	-0.43 *** (-0.69 – -0.18)
marital_statusMarried		-0.06 (-0.18 – 0.06)	-0.07 (-0.18 – 0.04)
politics		-0.11 *** (-0.14 – -0.09)	-0.08 *** (-0.11 – -0.05)
religionProtestant		-0.01 (-0.22 – 0.20)	0.01 (-0.18 – 0.21)
religionOther		-0.15 (-0.56 – 0.25)	-0.07 (-0.45 – 0.30)
religionNone or not declared		-0.06 (-0.23 – 0.10)	-0.02 (-0.17 – 0.14)
Observations	1618	1618	1618
R ² / R ² adjusted	0.230 / 0.229	0.486 / 0.480	0.559 / 0.553
AIC	5429.999	4812.367	4567.551

* p<0.1 ** p<0.05 *** p<0.01

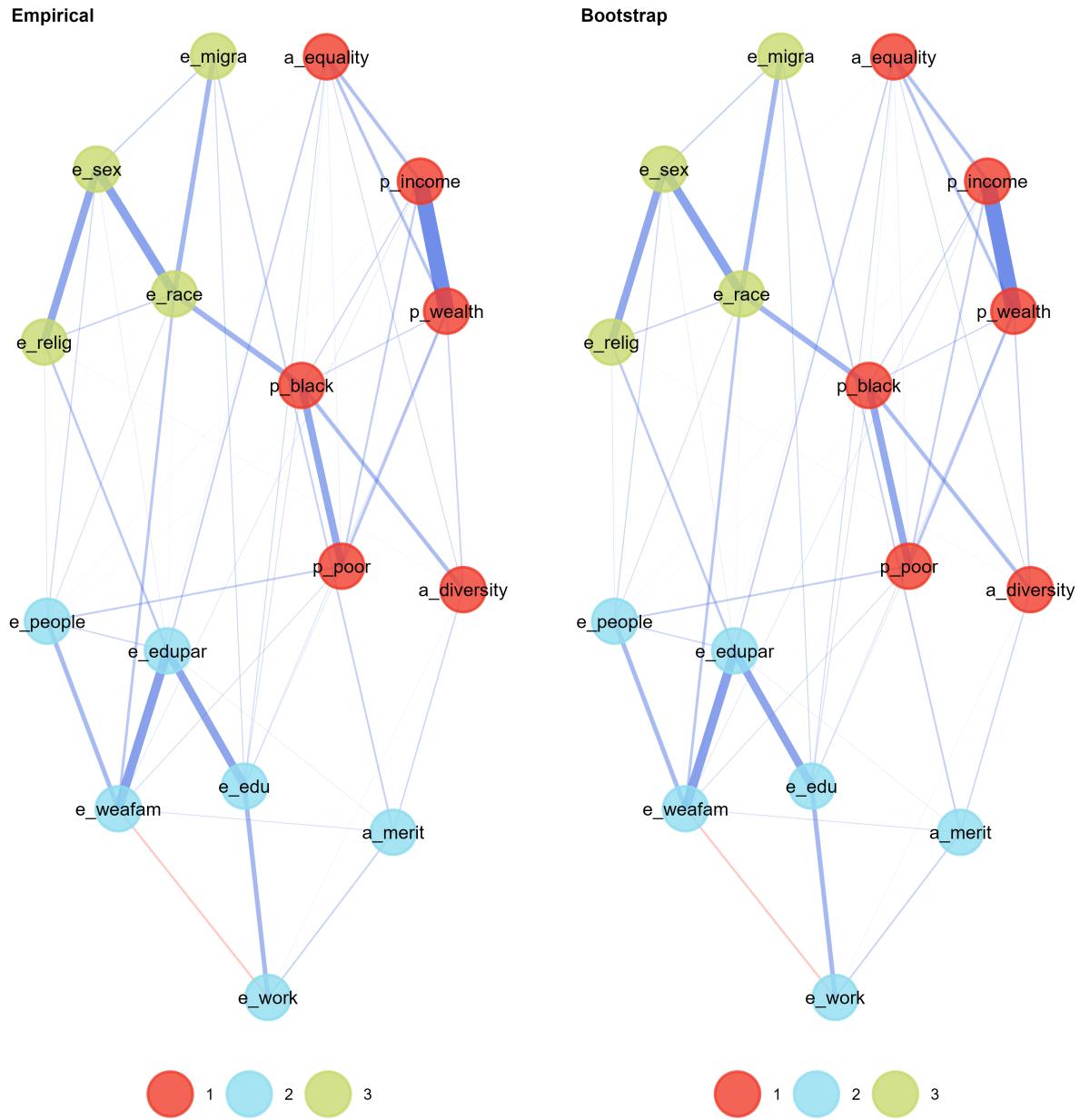


Figure 1: Comparison US1 with bootstrapped US1

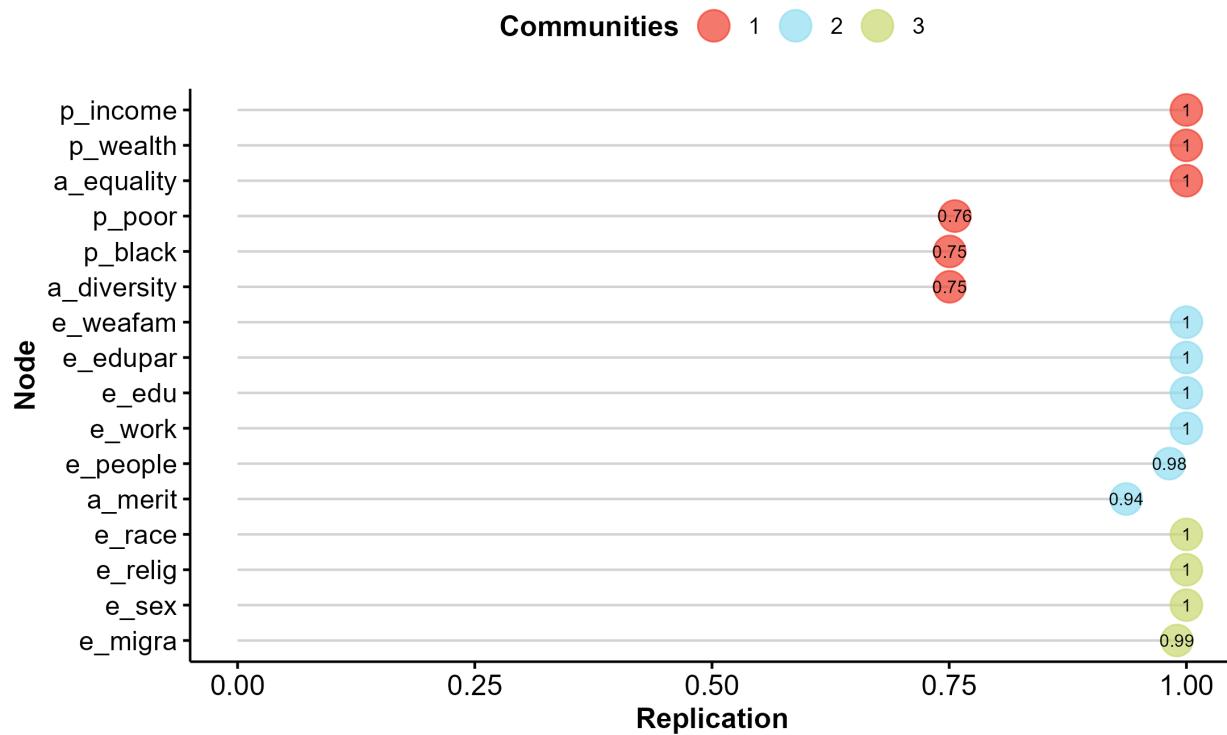


Figure 2: Item stability US1

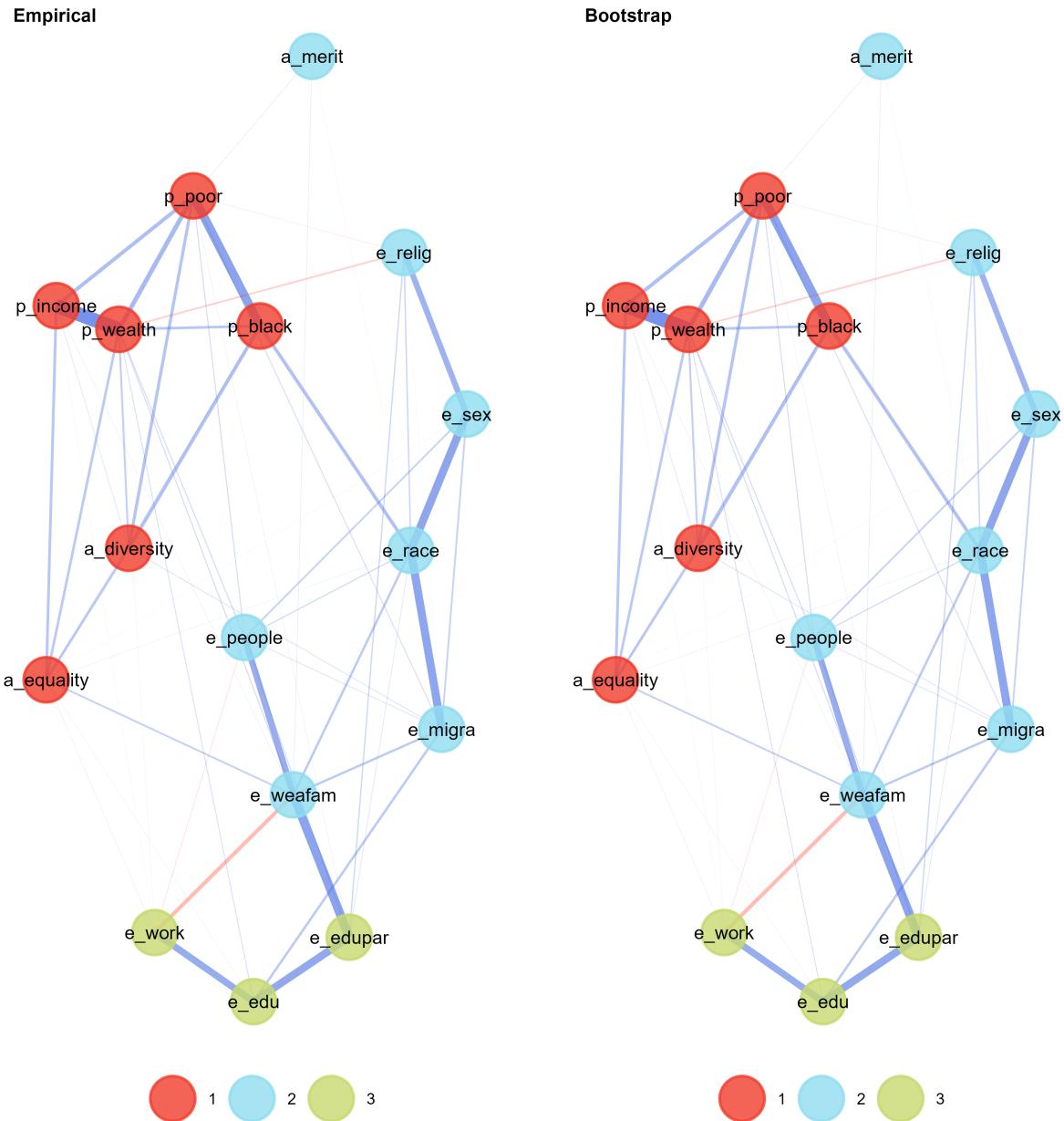


Figure 3: Comparison US2 with bootstrapped US2

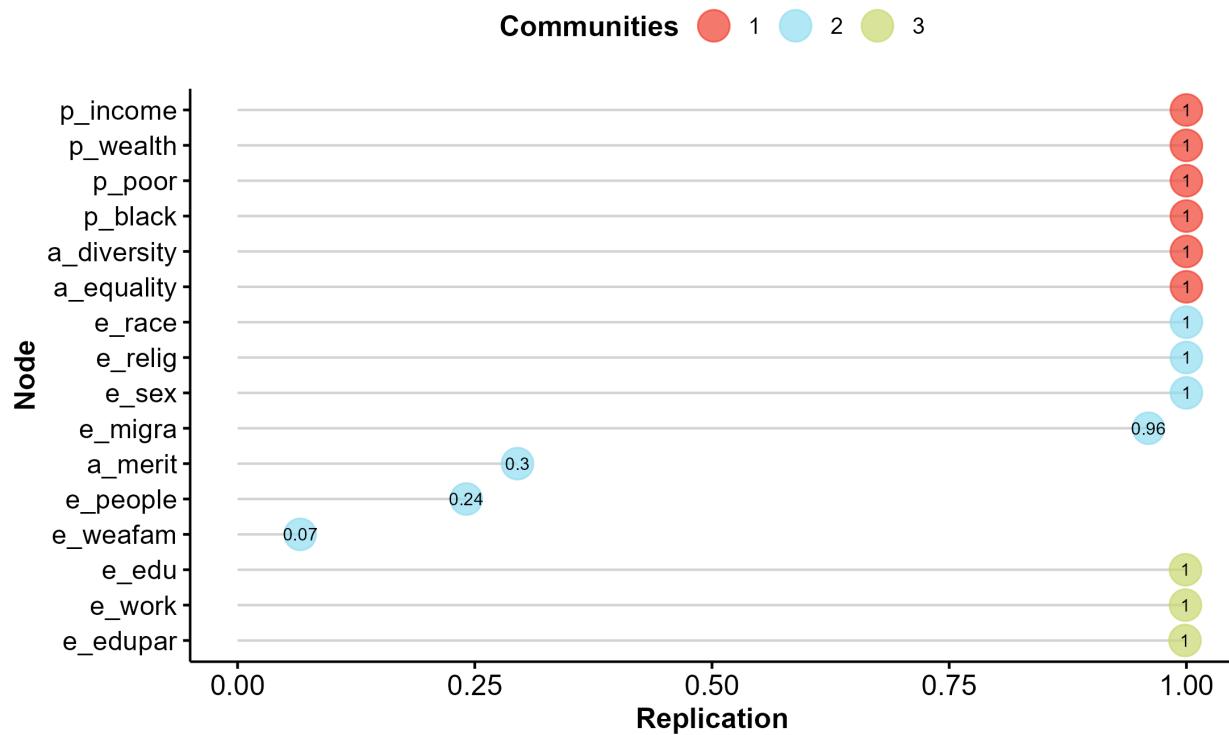


Figure 4: Item stability US2

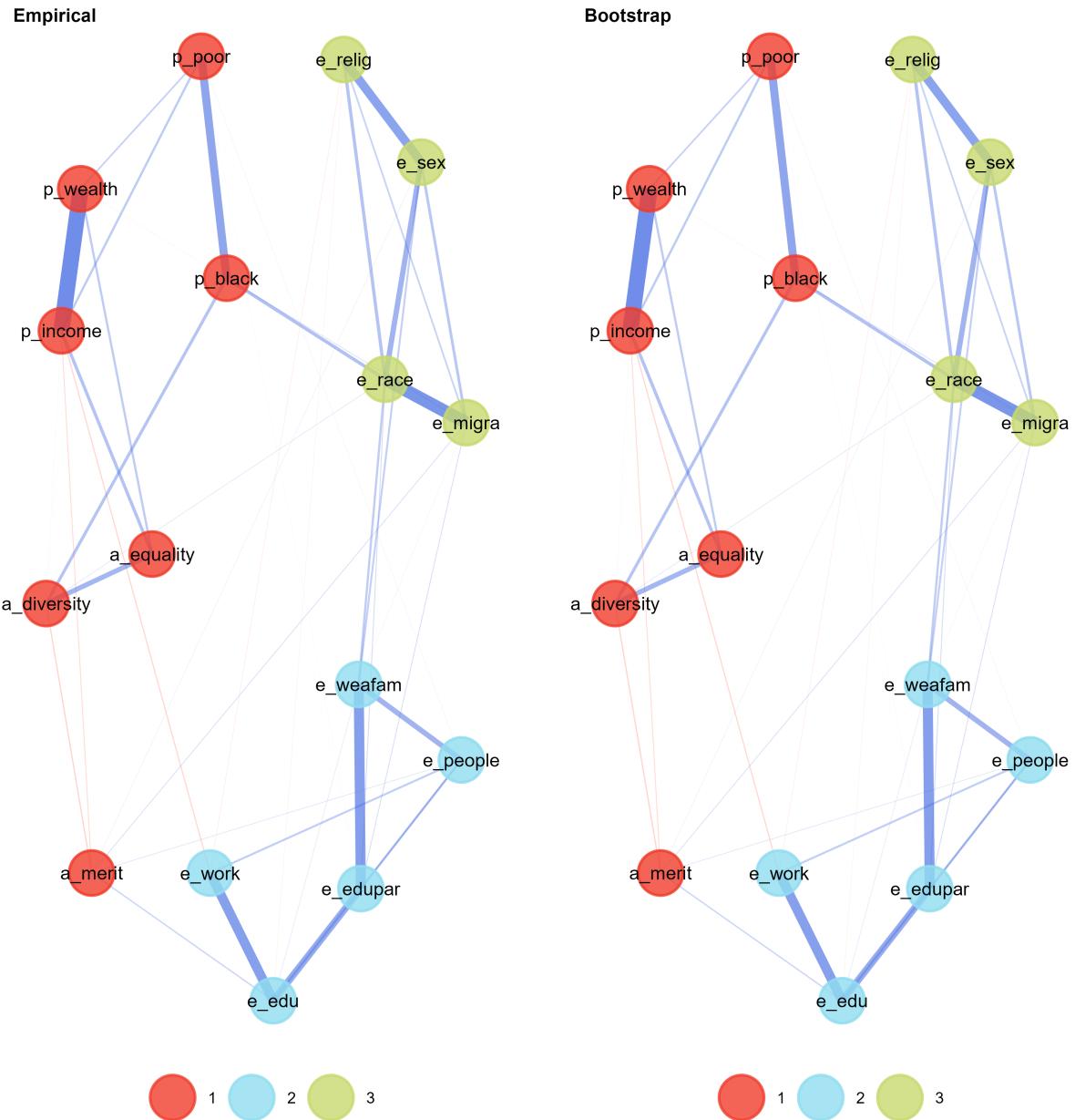


Figure 5: Comparison NL1 with bootstrapped NL1

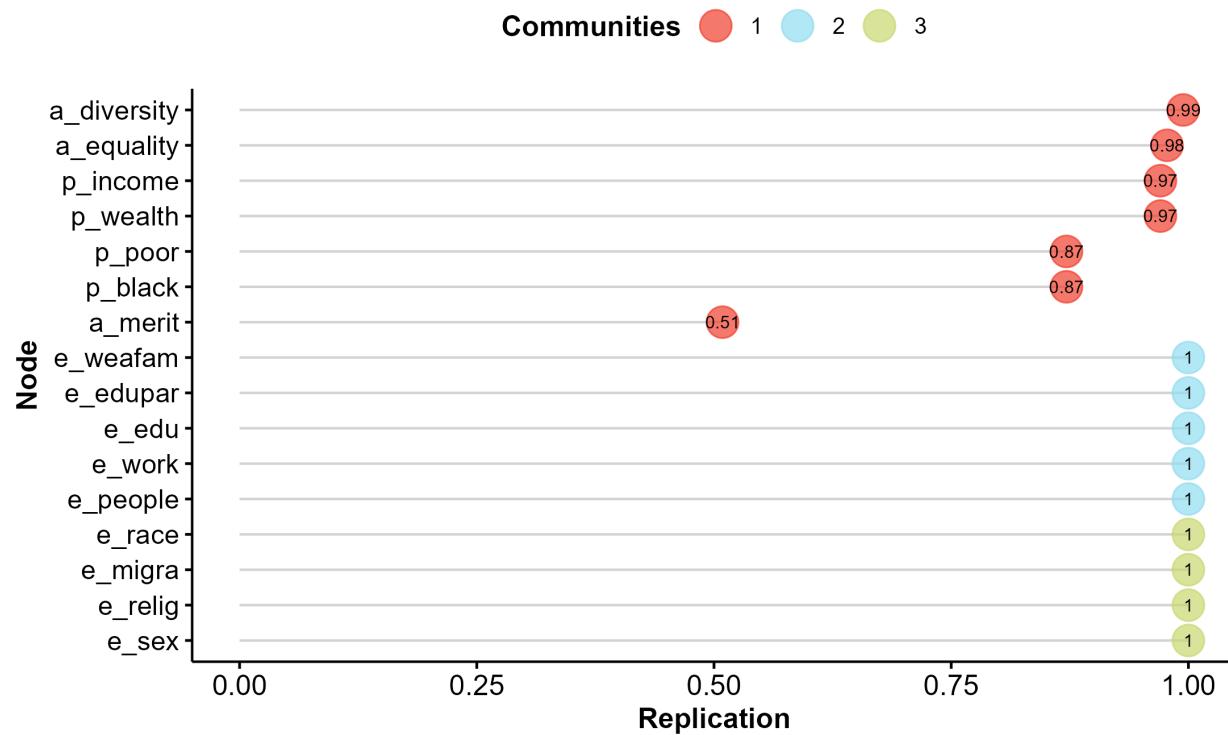
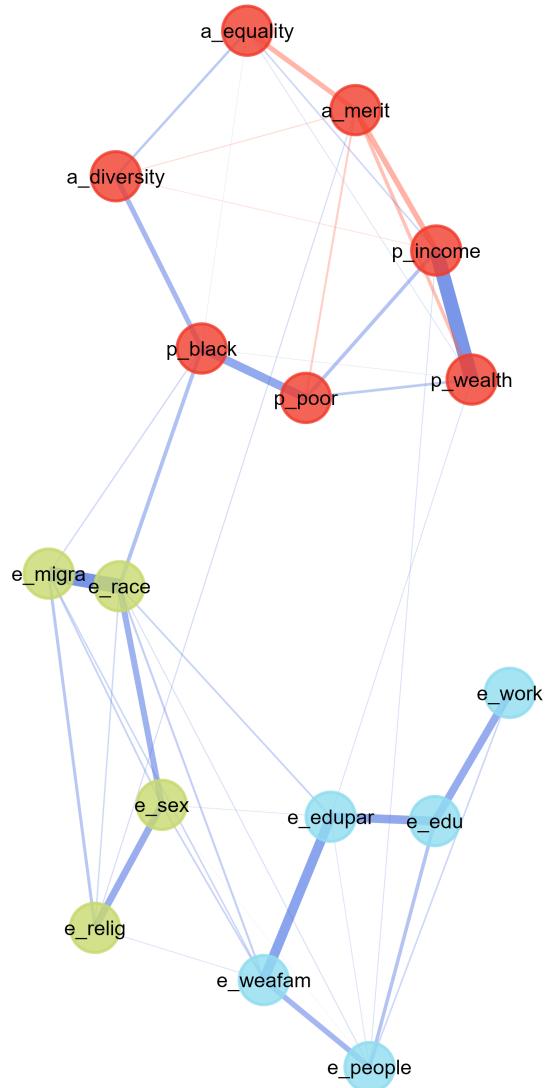


Figure 6: Item stability US1

Empirical



Bootstrap

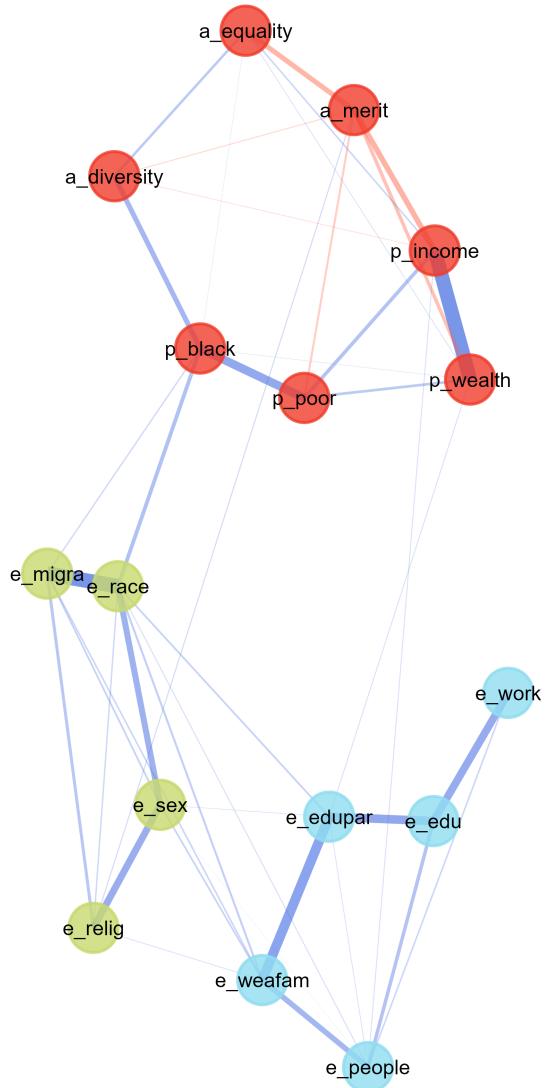


Figure 7: Comparison NL2 with bootstrapped NL1

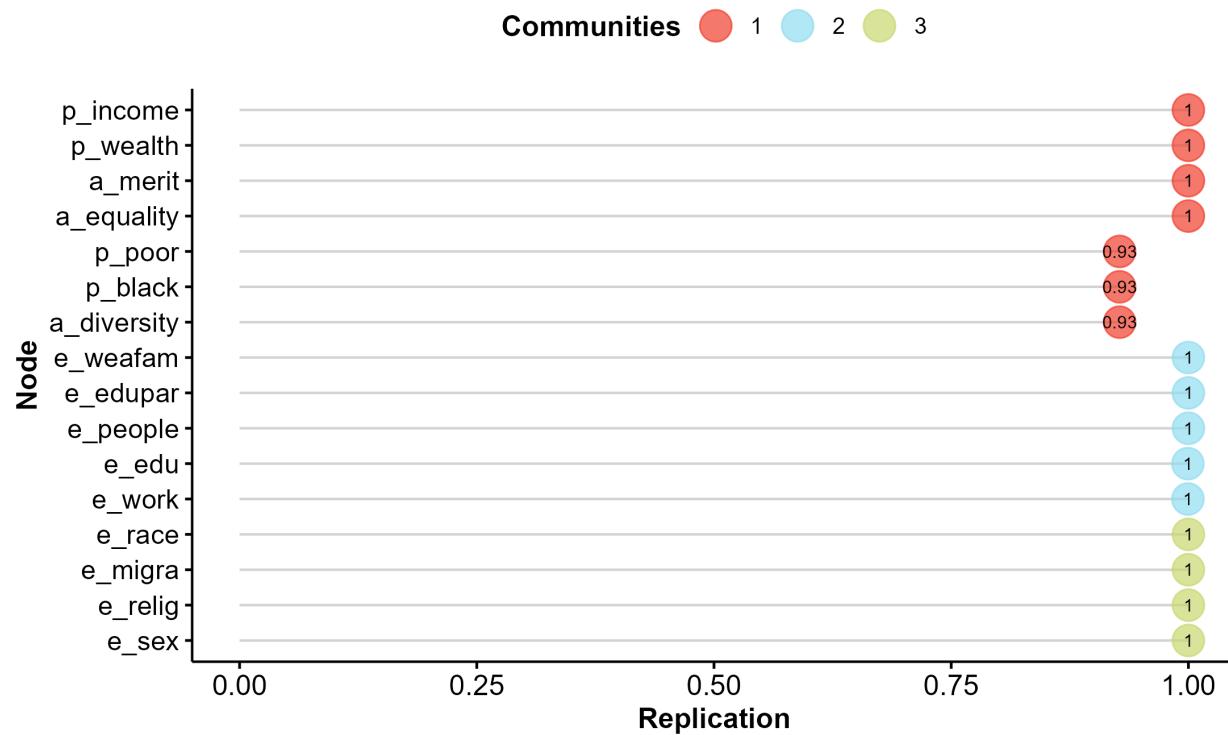


Figure 8: Item stability NL2

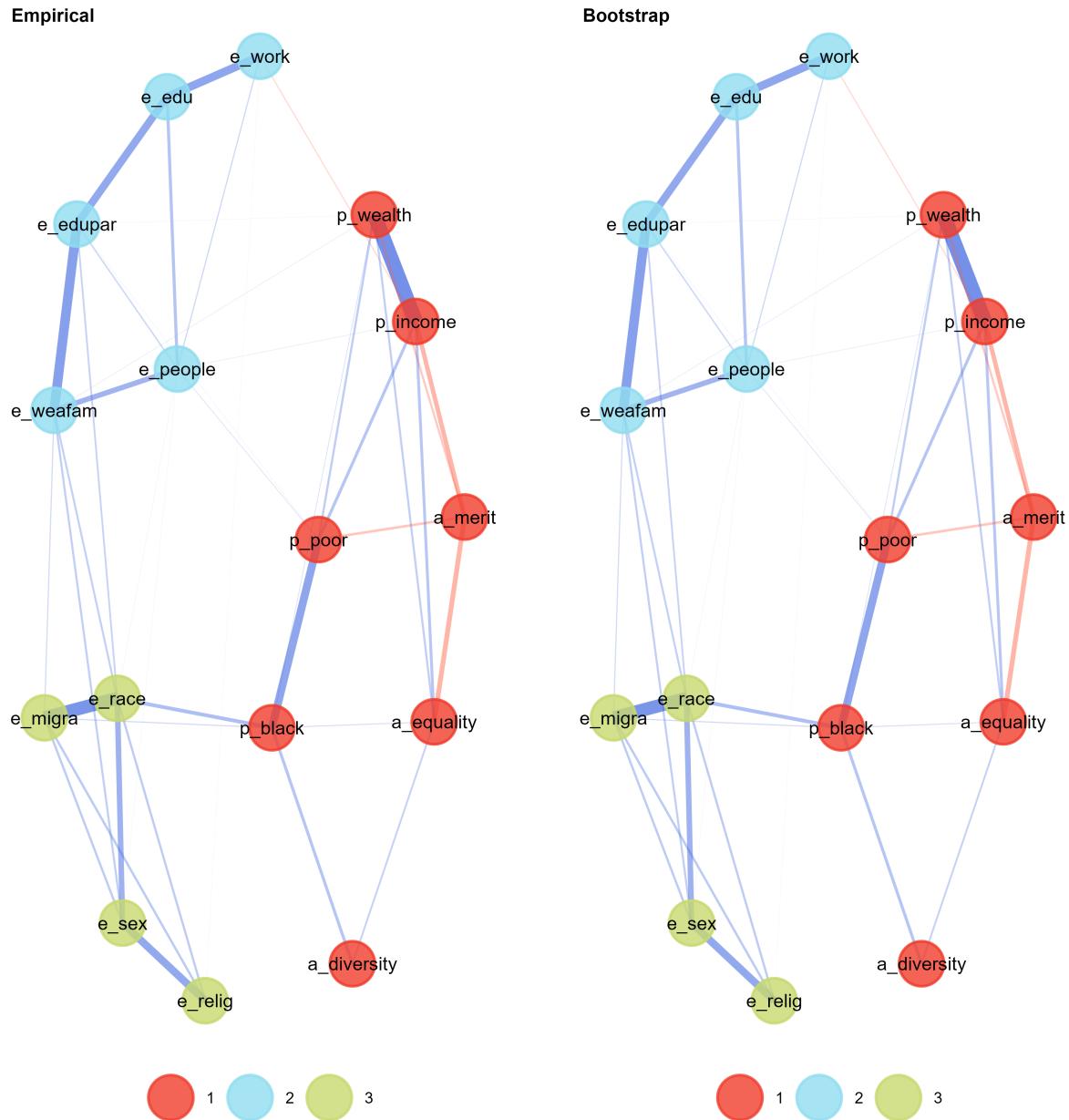


Figure 9: Comparison EGA in the full NL sample with bootstrapped results

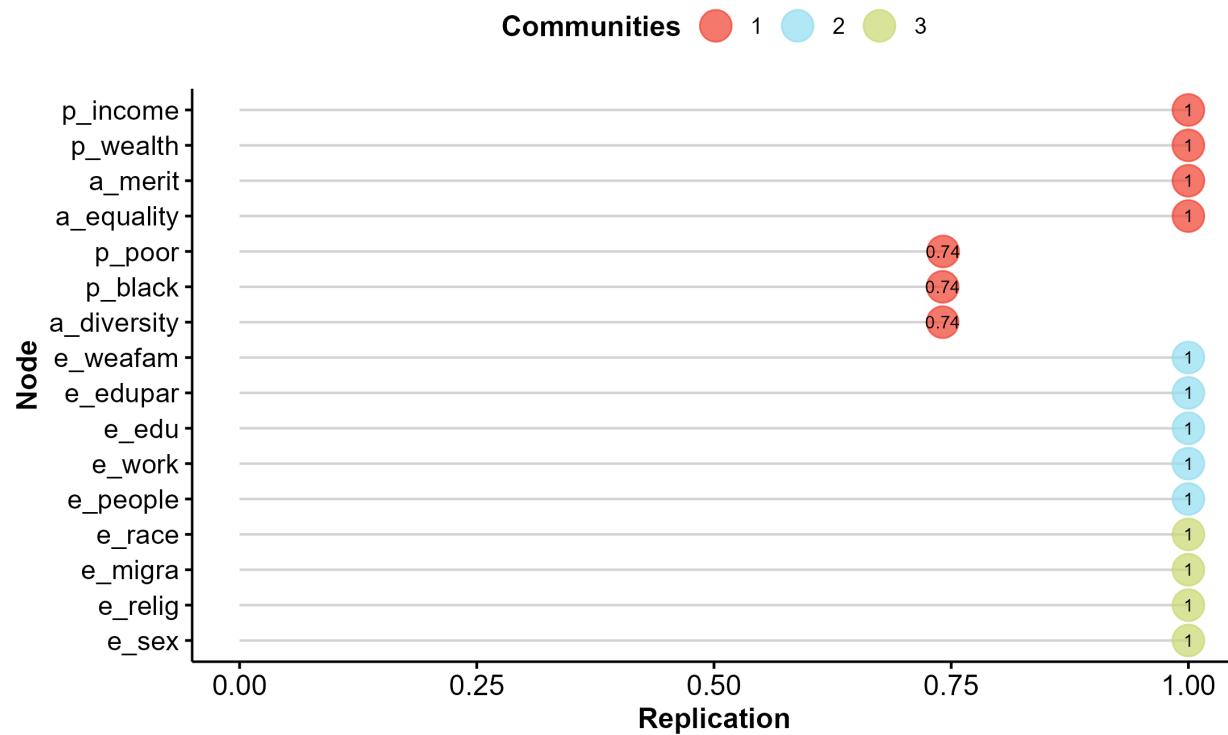
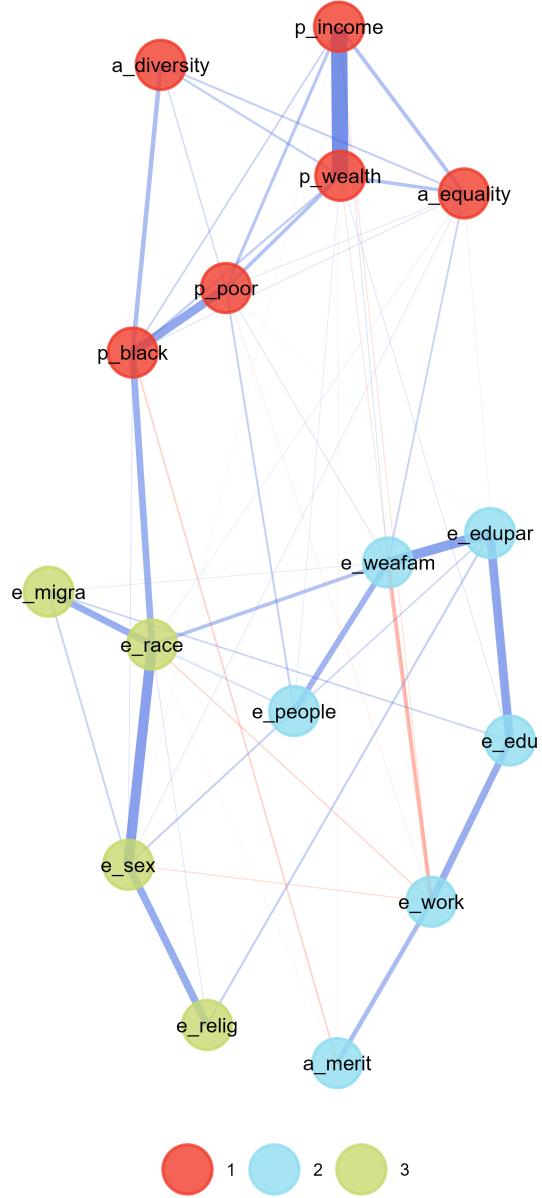


Figure 10: Item stability in the full NL sample

Empirical



Bootstrap

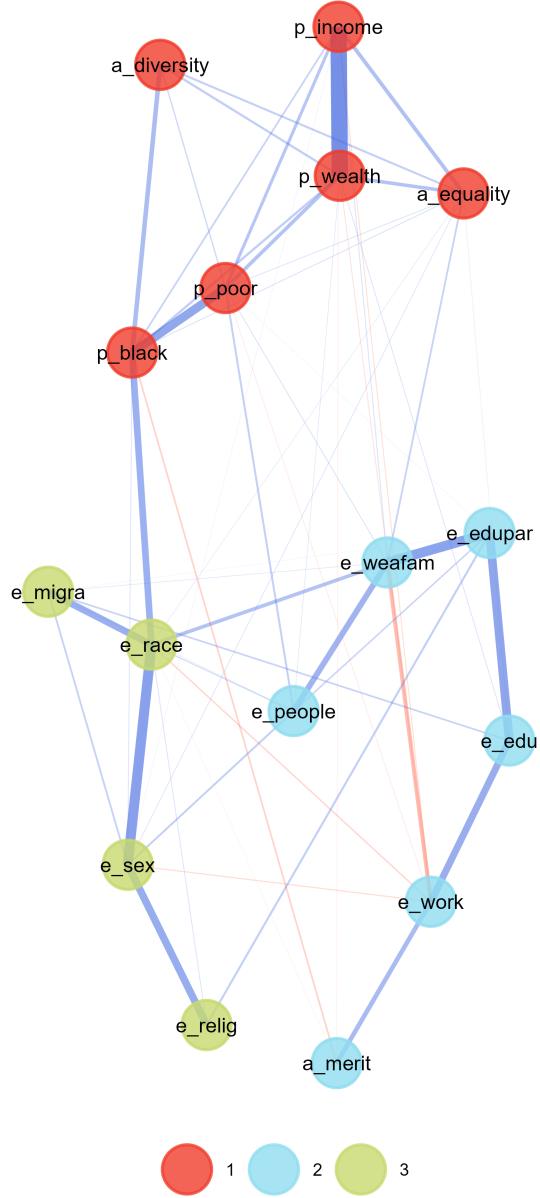


Figure 11: Comparison EGA in the full US sample with bootstrapped results

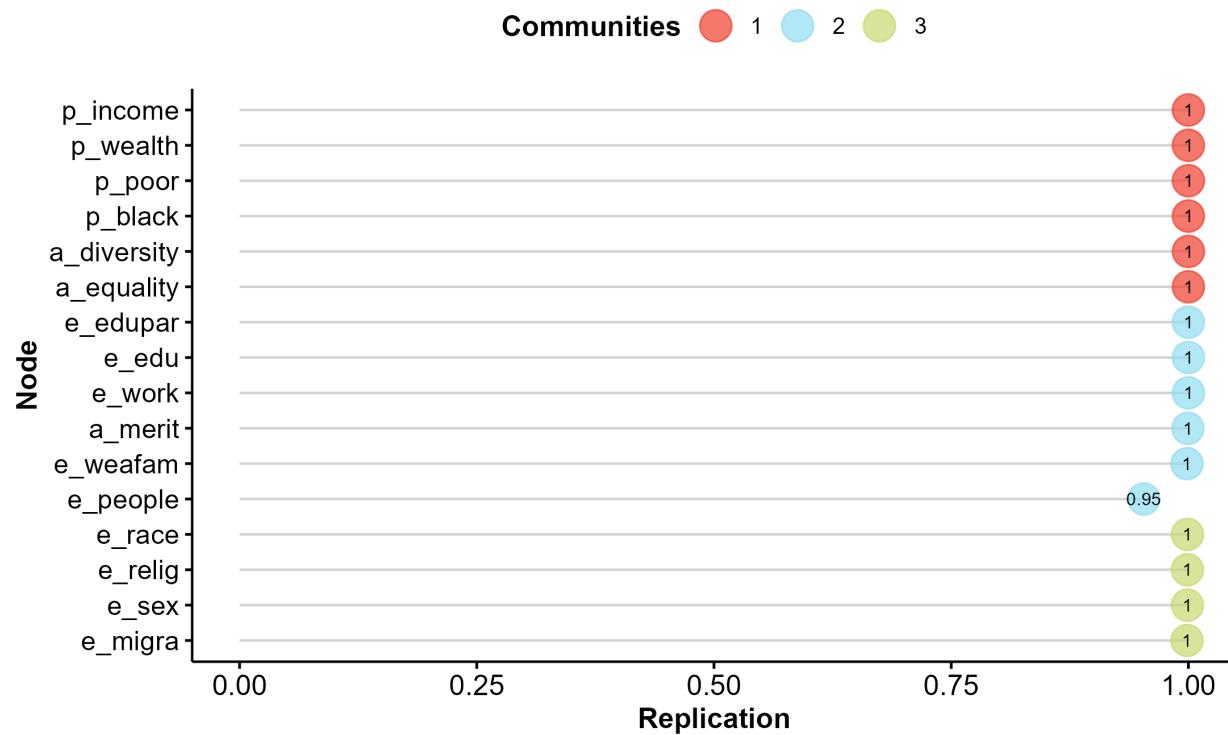


Figure 12: Item stability in the full US sample