

VALUES AND CLEAVAGES IN EUROPEAN POLITICAL CULTURES IN THE PAST FOUR DECADES

ECPR Standing Group on Political Culture

Political Culture Lecture Series

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Overview

- Introduction
- The European Value Study and The European Social Survey
- Values and Cleavages
 - Trust in Institutions / Attitudes Towards Immigrants
 - What Children Should Learn / Important Values
- Democracy around 2020 and the Influence of the War in Ukraine
- Where Skewed Distributions Come From
- Conclusion

Introduction

- The aim of this presentation is to show how attitude distributions in different European countries changed during the past four decades and how large differences between European countries are.
- The presentation uses the European Value Study and the European Social Survey both of which deliver information of such attitude and value distributions.
- A returning feature of such distributions is that they are mostly far from Gaussian but very often skewed to one direction: There are many more extreme positions than one would expect if the distributions were Gaussian.
- This can be explained with a simulation model that was first presented sixty years ago.

The European Value Study

- Surveys all over Europe (and with WVS: all over the world) from 1981 till 2022 available
- Traditionally, EVS covers also the US and Canada
- Covering a lot of different series of questions about political attitudes and values, about the confidence in institutions
- Up to six surveys per country between 1981 and 2022
- Unfortunately, not all studies cover all countries, and not in all countries all questions are asked
- Careful selection of countries, waves and topics necessary

The European Social Survey

- Surveys all over Europe from 2002 till 2023 available
- Covering a lot of different series of questions about political attitudes and values, about the confidence in institutions, about attitudes towards immigrants and about everyday life values.
- Up to ten surveys per country between 2002 and 2023
- Unfortunately, not all cover all countries, and not in all countries all questions are asked, but coverage better than in EVS
- Careful selection of countries, waves and topics necessary

The European Value Study: Countries

- Countries selected for this talk are mainly
 - Great Britain, Netherlands (1981, 1990, 1999, 2008, 2017, 2022)
 - Czech Republic, Slovakia (1990/1991, 1999, 2008, 2017, 2021/2022)
- as these have the longest time series
- Item groups: what children should learn, confidence, immigrants
- Mean values of countries / waves are less interesting than the whole distributions of attitude scales

The European Social Survey: Countries

- Countries selected for this talk are mainly
 - Germany, Hungary, Italy and Poland — for interesting differences, otherwise comparisons between Western and Eastern Europe
 - Belgium, Spain, Great Britain, Greece, Serbia, Italy and Poland — as here the most recent survey extended over the time when the Russian “special operation” began
- Item groups: trust, immigrants, important values
- Mean values of countries / waves are less interesting than the whole distributions of attitude scales

Analysis Strategy

- Select groups of items
- Run factor analysis for each group of items
- Use the first two (or perhaps more) factors for comparisons
- Visualise two-dimensional distributions of factor scores for each country-wave combination
- These distributions will be far from Gaussian although all means are 0, all variances are 1, all correlations are 0
- But skewness and kurtosis show deviations from Gaussian distribution $f(\mathbf{x}) = \exp(P_2(\mathbf{x}))$, instead $f(\mathbf{x}) = \exp(P_4(\mathbf{x}))$ is used with $P_k()$ a polynomial up to the k th degree and \mathbf{x} a vector

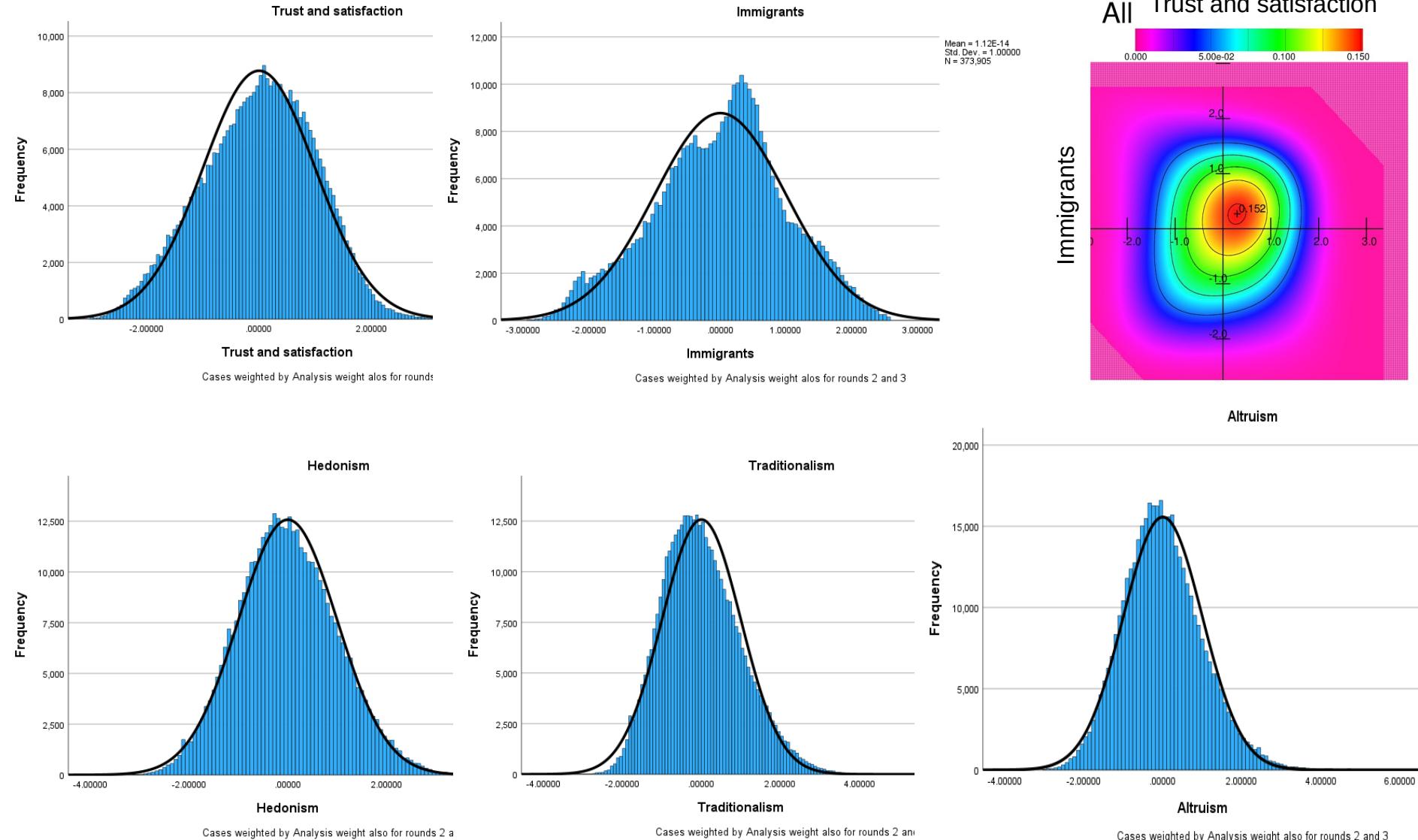
The European Value Study: Item Groups

- Confidence in institutions (parliament, civil services, police ..., four-point scale, 11 items, two factors)
 - one general factor (31.2 per cent of the variance)
 - *one special factor (15.5 per cent of the variance): confidence in hierarchical organisations: church and armies*
- Attitudes with respect to immigrants (ten-point scale, nine items including one about the EU enlargement, two factors)
 - immigrants do not raise economic and crime problems (26 per cent of the variance)
 - *immigrants do not raise cultural problems (language, culture, 21 per cent of the variance)*
- Important qualities children should have (two-point scale: important or not, 11 items, four factors)
 - a responsibility–obedience dimension (13 per cent of the variance)
 - an unselfishness–thrift dimension (12 per cent of the variance)
 - *a perseverance–good manners dimension (10 per cent of the variance)*
 - *a respect–independence dimension (10 per cent of the variance)*
- Note: in all groups, about one half of the variance is white noise!

The European Social Survey: Item Groups

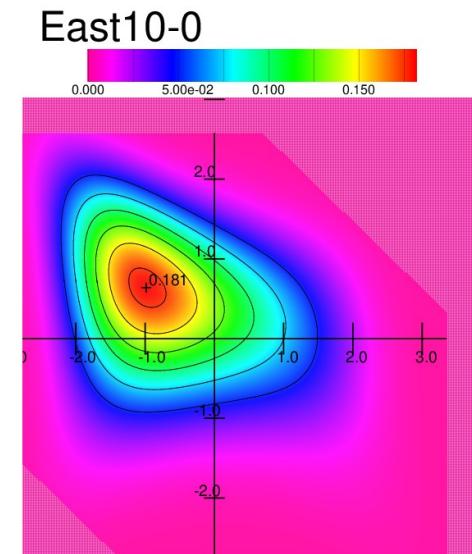
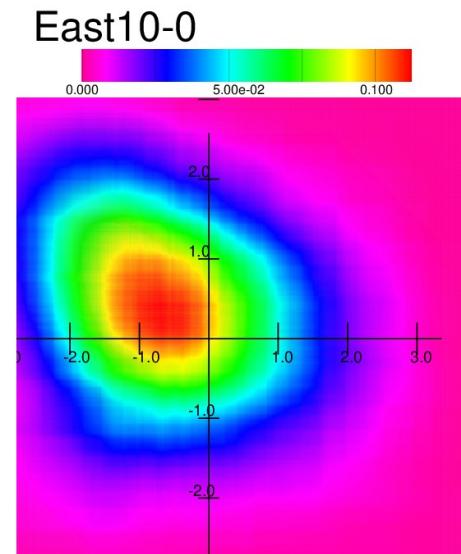
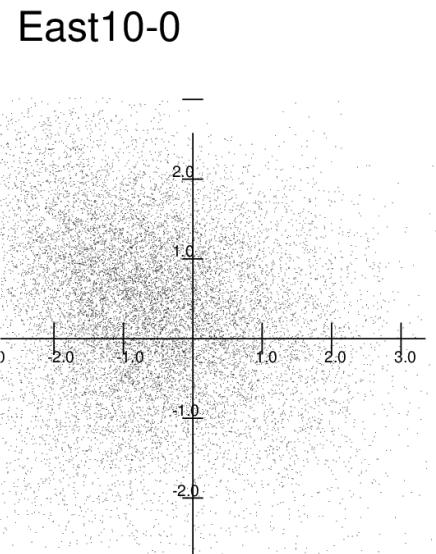
- Trust in institutions and attitudes towards immigrants
 - Trust in the legal system, the police, politicians ...: 0=no trust at all, 10=complete trust
 - Allow ... immigrants of ethnic groups same as majority/different from majority ...: 1: many, ..., 4: none
 - Immigration bad (0)/good (10) for country's economy, country's cultural life undermined (0)/enriched (10) by immigrants
 - ➔ Two factors covering about one half of the total variance of 13 items, one representing trust, the other representing positive feelings towards immigrants
- Important values
 - To try new and different things in life, to seek fun and things that give me pleasure ...
 - To care for nature and environment, to help people and care for others' wellbeing ,,,
 - To behave properly, that government is strong ...
 - 1: very much like me, ..., 6: not like me at all
 - ➔ Three factors covering about one half of the total variance of 23 items, collecting *hedonistic*, traditional and altruistic behavior.

The European Social Survey: Factors and Their Distributions



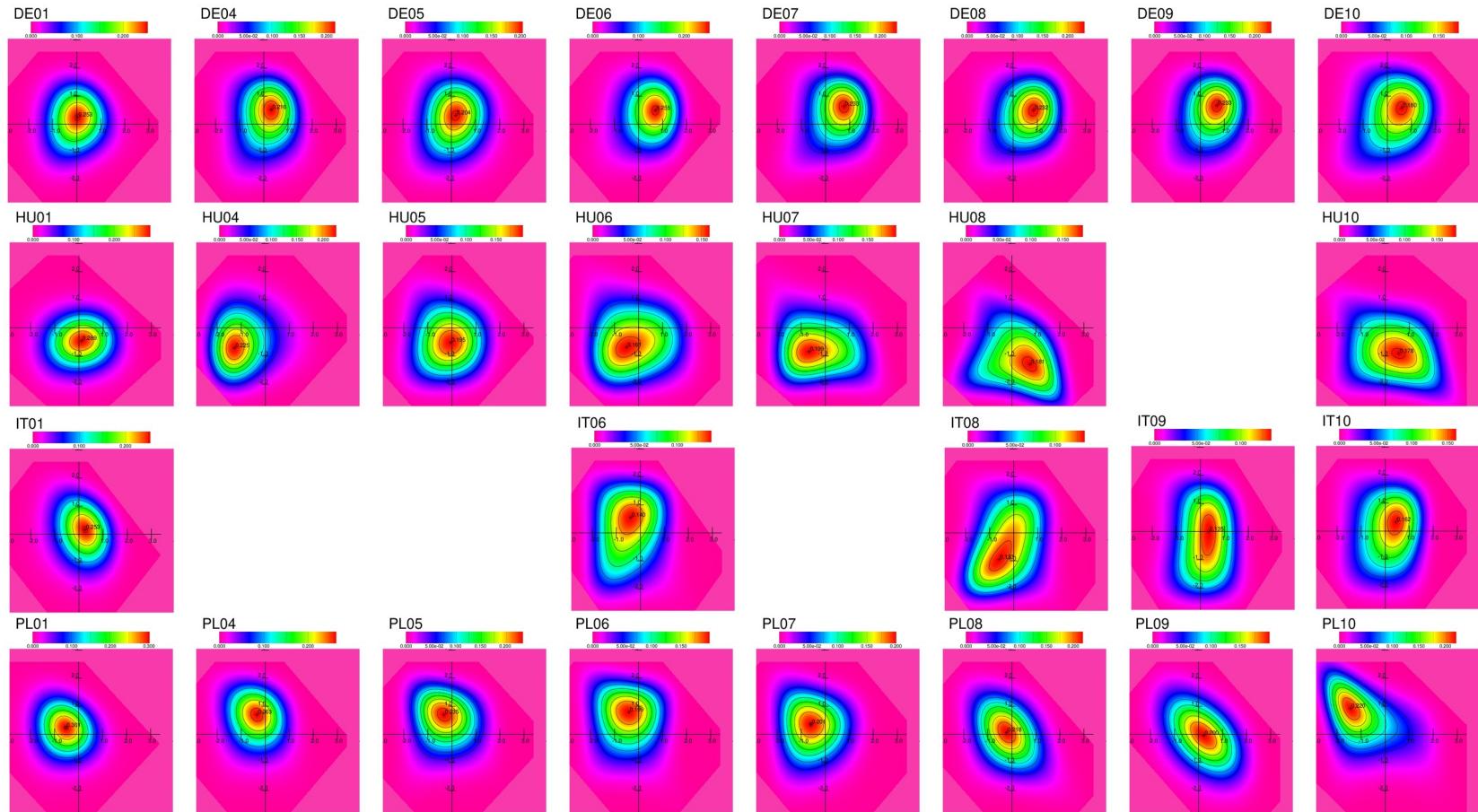
A first example: ESS, trust and immigrants

- Horizontal axis: trust in various institutions, items 11 point scales
- Vertical axis: attitudes towards immigrants, items 11 or 4 point scales
- Result of a factor analysis over all countries and years, 373'905 cases
- Scattergram — heatmap — density function $f(\mathbf{x}) = \exp(P_4(\mathbf{x}))$
- Note: *the moments of this density function coincide with those of the empirical distribution up to all fourth moments (the Gaussian distribution's moments would do so only up to second moments!)*



A first example: ESS, trust and immigrants

- Horizontal axis: trust in various institutions, items 11 point scales, Vertical axis: attitudes towards immigrants, items 11 or 4 point scales, result of a factor analysis over some countries some years, density function $f(x) = \exp(P_4(x))$

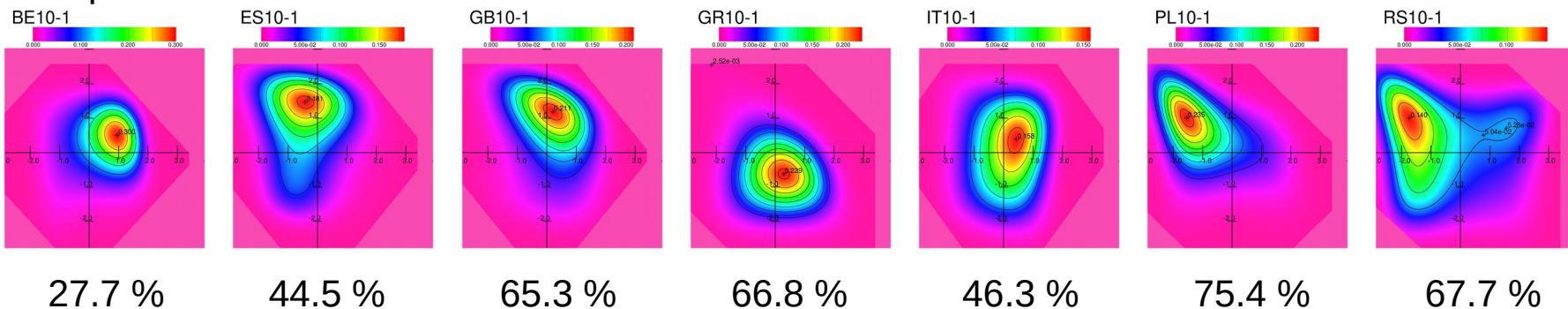


2002-03 2008-11 2010-13 2012-13 2014-15 2016-17 2018-20 2020-22

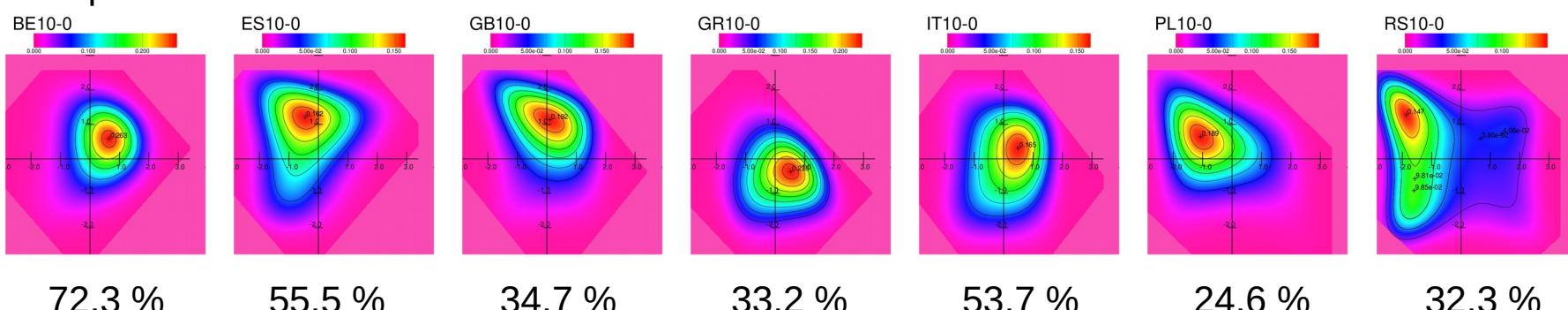
A deeper look: trust and immigrants before and after Russia's invasion into Ukraine (ESS)

- Horizontal axis: trust in various institutions, items 11 point scales, Vertical axis: attitudes towards immigrants, items 11 or 4 point scales, result of a factor analysis over some countries some years, density function $f(x) = \exp(P_4(x))$

Respondents asked before Russia's invasion



Respondents asked after Russia's invasion

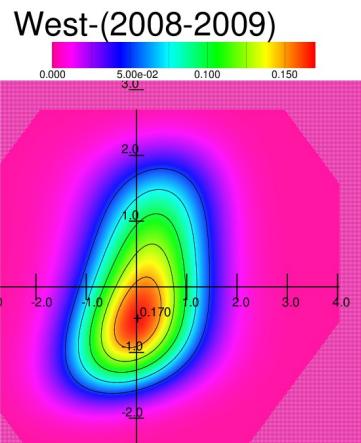


Kolmogorov-Smirnov Test (significance level)

T: 0.170	0.004	<0.001	0.595	0.024	<0.001	0.015
I: 0.081	0.004	<0.001	0.329	<0.001	<0.001	0.340

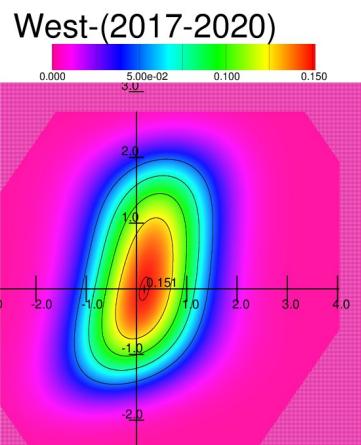
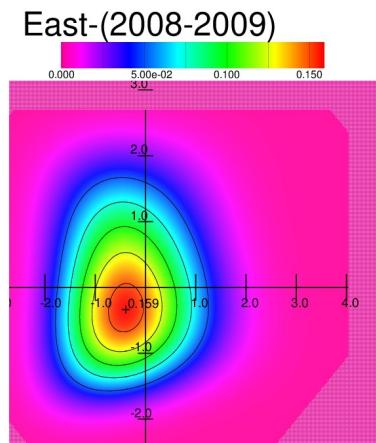
A broader look: trust and immigrants in Western and Eastern Europe, EVS 2008-09 and 2017-2020

- Horizontal axis: confidence in various institutions (T), Vertical axis: attitudes towards immigrants (I), all items are 4 point scales, result of a factor analysis over countries groups, some years, density function $f(x) = \exp(P_4(x))$



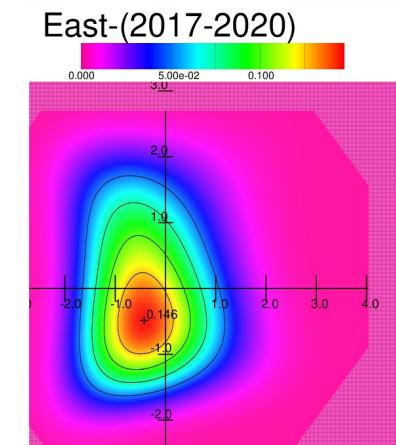
$$\begin{aligned}\mu(T) &= -0.273 \pm 0.006 \\ \sigma(T) &= 0.933 \\ \mu(I) &= -0.035 \pm 0.006 \\ \sigma(I) &= 0.956 \\ \rho(TI) &= 0.234 \\ \max(T) &= 0.026 \\ \max(I) &= -0.480 \\ \max(f) &= 0.170 \\ \text{skew}(T) &= 0.119 \pm 0.017 \\ \text{skew}(I) &= 0.259 \pm 0.016 \\ \text{kurt}(T) &= 0.035 \pm 0.034 \\ \text{kurt}(I) &= -0.406 \pm 0.033\end{aligned}$$

$$\begin{aligned}\mu(T) &= 0.127 \pm 0.007 \\ \sigma(T) &= 1.080 \\ \mu(I) &= 0.021 \pm 0.006 \\ \sigma(I) &= 0.996 \\ \rho(TI) &= 0.043 \\ \max(T) &= -0.394 \\ \max(I) &= -0.336 \\ \max(f) &= 0.159 \\ \text{skew}(T) &= -0.297 \pm 0.016 \\ \text{skew}(I) &= 0.358 \pm 0.016 \\ \text{kurt}(T) &= 0.109 \pm 0.032 \\ \text{kurt}(I) &= -0.359 \pm 0.032\end{aligned}$$



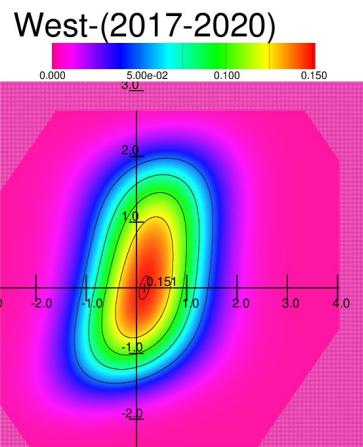
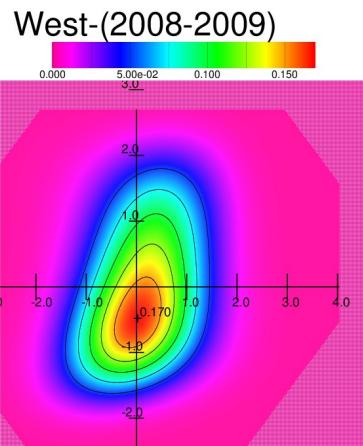
$$\begin{aligned}\mu(T) &= -0.343 \pm 0.006 \\ \sigma(T) &= 0.874 \\ \mu(I) &= 0.185 \pm 0.006 \\ \sigma(I) &= 0.966 \\ \rho(TI) &= 0.151 \\ \max(T) &= 0.157 \\ \max(I) &= -0.003 \\ \max(f) &= 0.151 \\ \text{skew}(T) &= 0.179 \pm 0.017 \\ \text{skew}(I) &= 0.148 \pm 0.016 \\ \text{kurt}(T) &= 0.174 \pm 0.034 \\ \text{kurt}(I) &= -0.522 \pm 0.032\end{aligned}$$

$$\begin{aligned}\mu(T) &= 0.359 \pm 0.007 \\ \sigma(T) &= 1.029 \\ \mu(I) &= 0.025 \pm 0.007 \\ \sigma(I) &= 1.057 \\ \rho(TI) &= 0.001 \\ \max(T) &= -0.421 \\ \max(I) &= -0.484 \\ \max(f) &= 0.146 \\ \text{skew}(T) &= -0.331 \pm 0.017 \\ \text{skew}(I) &= 0.319 \pm 0.017 \\ \text{kurt}(T) &= 0.033 \pm 0.034 \\ \text{kurt}(I) &= -0.459 \pm 0.017\end{aligned}$$



A broader look: trust and immigrants in Western and Eastern Europe, EVS 2008-09 and 2017-2020

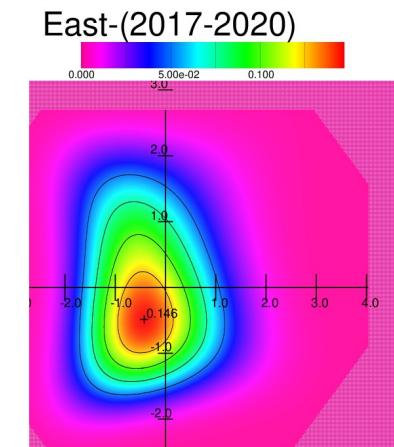
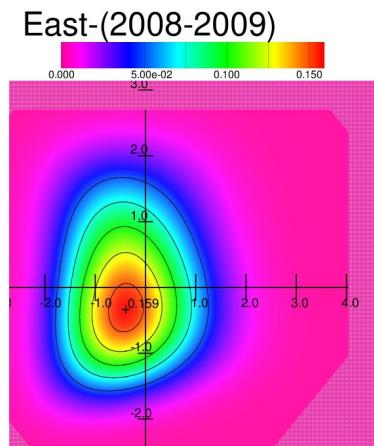
- Horizontal axis: confidence in various institutions (T), Vertical axis: attitudes towards immigrants (I), all items are 4 point scales, result of a factor analysis over countries groups, some years, density function $f(x) = \exp(P_4(x))$



In Western Europe trust in institutions and sympathy for immigrants is slightly correlated — more in 2008-09 than in 2017-20 — while in Eastern Europe there is no such correlation visible.

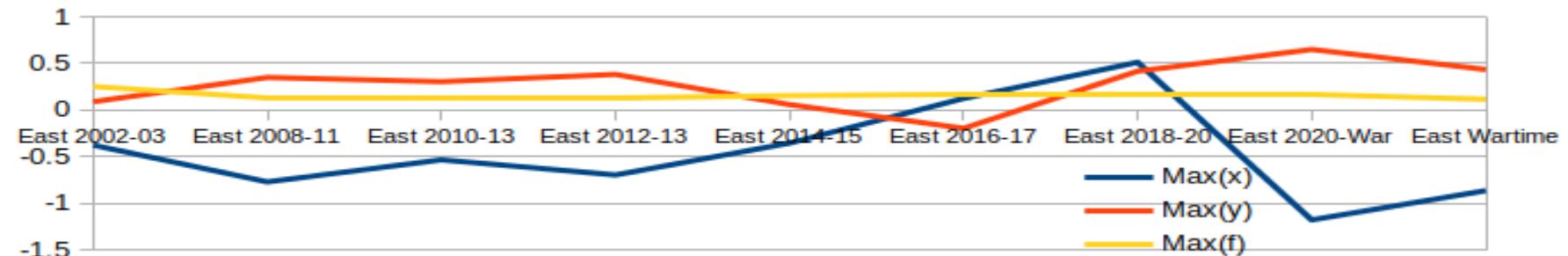
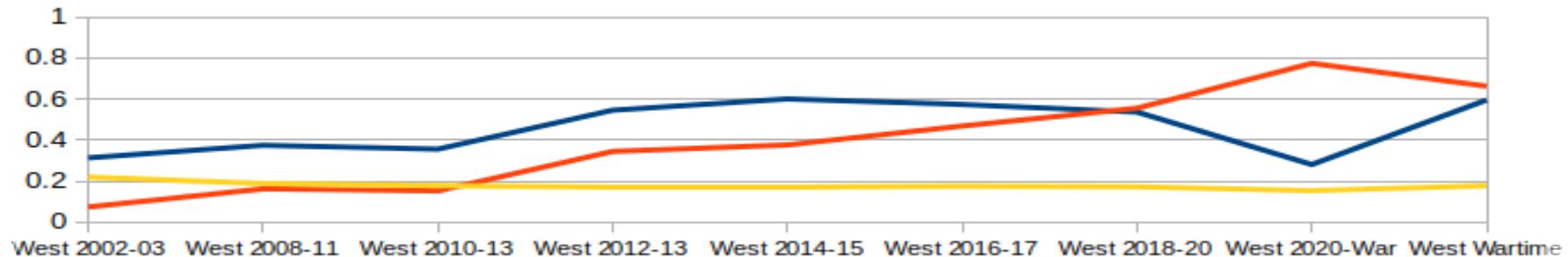
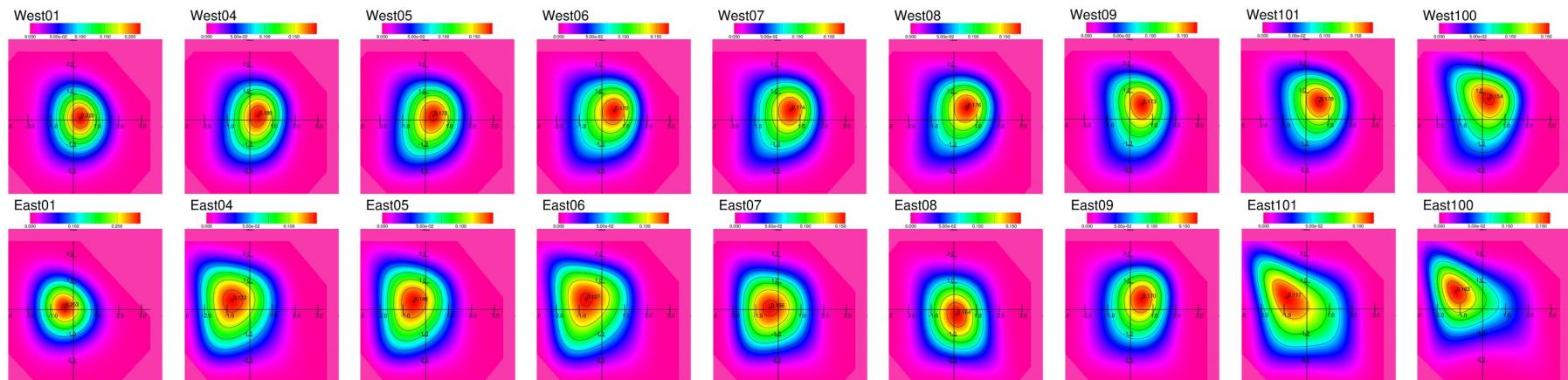
The trust distribution is heavily skewed, with a long tail to distrust in Western Europe, in Eastern Europe to trust: extremely distrustful people are frequent in the West, extremely trustful people are frequent in the East. Skewness increases between the waves.

The distribution of the migrant sympathy is extremely platikurtic and skewed with the longer tail in the direction of migrant sympathy, only in Western Europe in 2017-20 it is a little more symmetric: attitudes towards immigrants differ much wider than the trust in institution.



A broader look: trust and immigrants in Western and Eastern Europe, ESS 2002-03 till mid 2020

- Horizontal axis: trust in various institutions, items 11 point scales, Vertical axis: attitudes towards immigrants, items 11 or 4 point scales, result of a factor analysis over some countries some years, density function $f(x) = \exp(P4(x))$

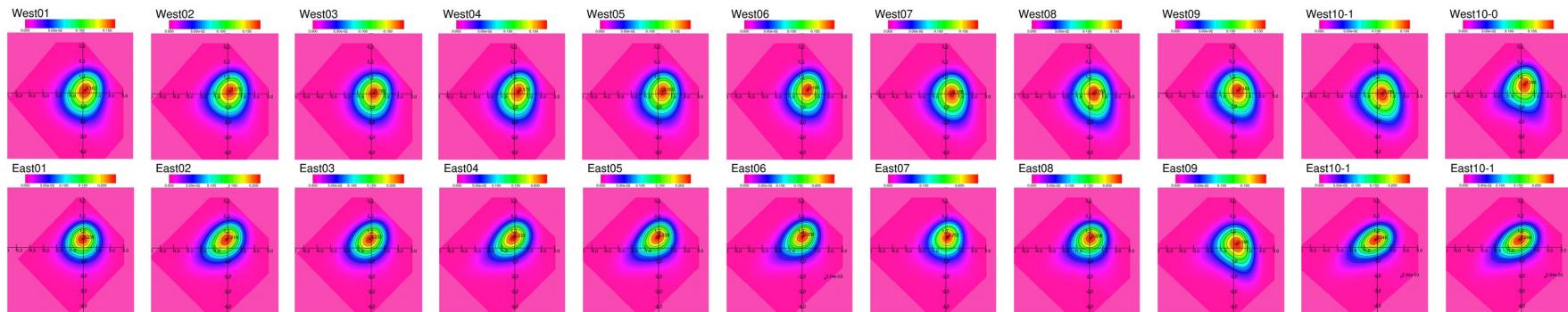


A second example: ESS, important values

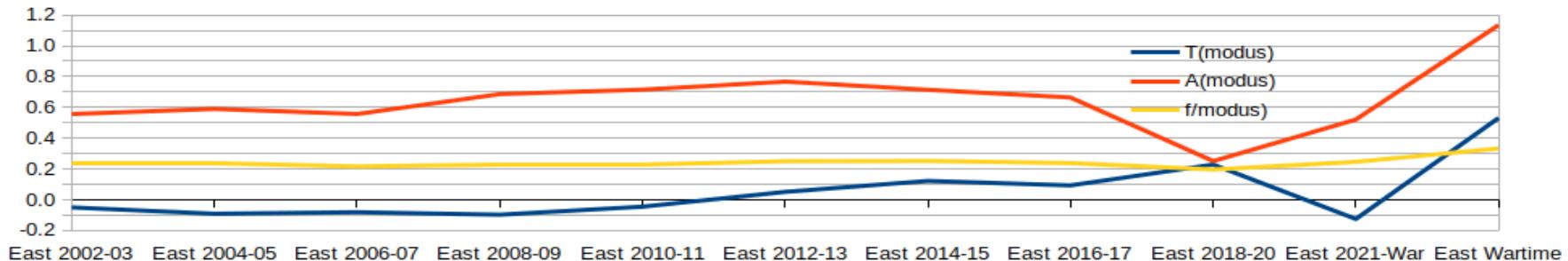
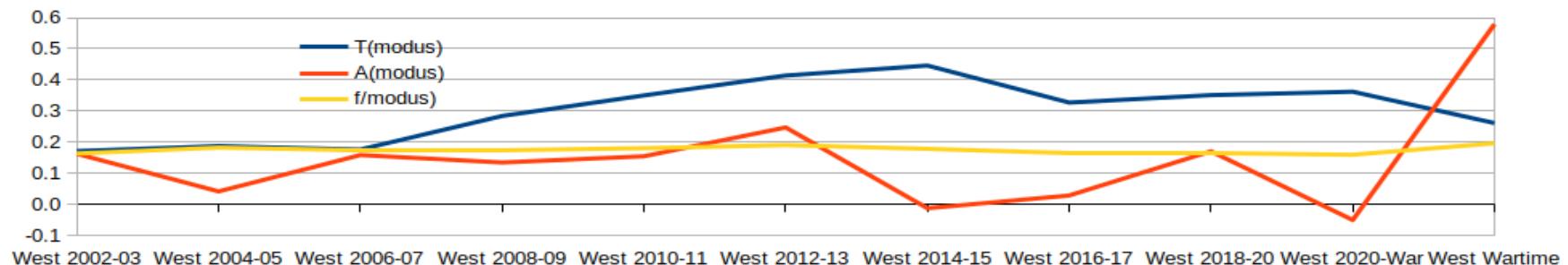
- 409'859 weighted cases
- ➔ Three factors covering about one half of the total variance of 23 items, collecting hedonistic, traditional and altruistic behavior
 - ➔ for “hedonists” it is important to seek adventures and have an exciting life, to seek fun and things that give pleasure, to try new and different things in life, to have a good time
 - ➔ for “altruists” it is important to help people and care for others’ well-being, to understand different people, to be loyal to friends, that people are treated equally and have equal opportunities
 - ➔ for “traditionalists” it is important to do what is told and follow rules, to behave properly, to live in secure and safe surroundings, to get respect from others, to follow traditions and customs

Another broad look: traditional and altruistic values in Western and Eastern Europe, ESS 2002-03 till mid 2022

- Horizontal axis: traditional values (T), 6 point scales, Vertical axis: altruistic values (A), 6 point scales, result of a factor analysis over some countries some years, density function $f(x) = \exp(P4(x))$



2002-03 2004-05 2006-07 2008-09 2010-11 2012-13 2014-15 2016-17 2018-20 2021-War War time



An Example from EVS: What Children Should Learn

- Great Britain, Netherlands, Czech Republic and Slovakia
- Factors from binary items:
 - a responsibility–obedience dimension (r-o, horizontal)
 - an unselfishness–thrift dimension (u-t, vertical)
- Parameters of the distributions

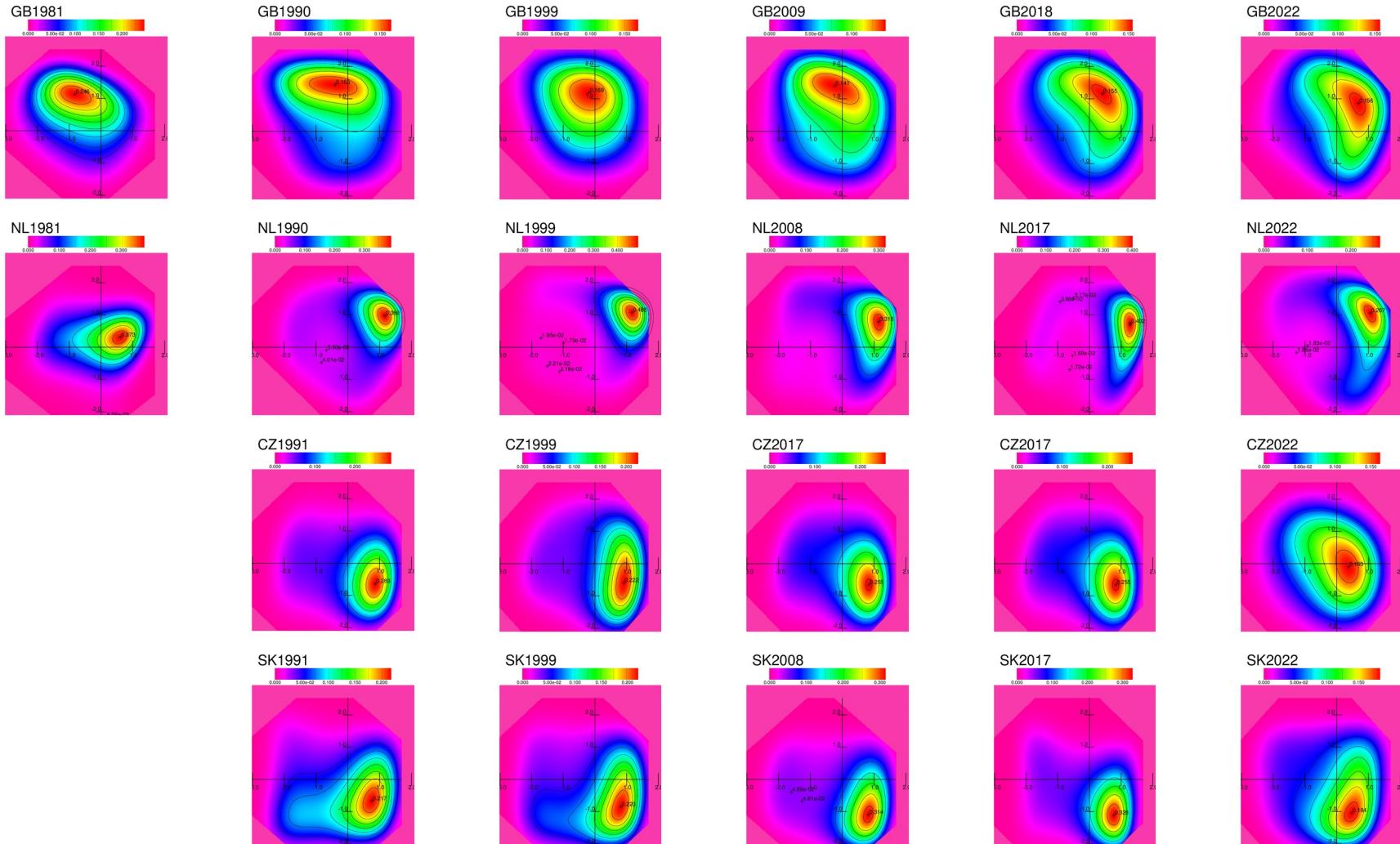
Country	responsibility–obedience				unselfishness–thrift			
	μ	σ	γ	κ	μ	σ	γ	κ
Great Britain	-0.65 ↑ +0.04	~ 0.95	+0.07 ↓ -0.29	-0.58 ~ -0.34	~ 0.65	~ 0.95	-0.50 ↑ -0.18	~ -0.6
Netherlands	~ +0.5	~ 0.85	-0.37 ↓ -0.82	-0.55 ↑ +0.24	~ +0.5	0.69 ↑ 1.02	-0.50 ↓ -0.29	1.0 ↓ -0.6
Czech Rep.	-0.14 ~ +0.27	~ 0.9	~ -0.5	-0.39~0.23	-0.31~+0.02	~ 0.9	+0.23 ↓ -0.05	-0.43 ~ 0.25
Slovakia	-0.12 ~ +0.11	1.05 ↓ 0.90	-0.59 ~ -0.35	-0.68 ↑ -0.22	~ -0.6	-0.84 ~ 0.98	+0.31 ↓ +0.23	-0.19 ↓ -0.58

γ (skewness): 0.0 normal, <0.0 long left tail, >0.0 long right tail

κ (kurtosis): 0.0 normal, <0.0 platikurtic, >0.0 leptokurtic

An Example from EVS: What Children Should Learn

- Great Britain, Netherlands, Czech Republic and Slovakia, Factors from binary items: a responsibility–obedience dimension (horizontal) and an unselfishness–thrift dimension (vertical)



Some theory behind skewed distributions

- Abelson and Bernstein (1963) published a simulation model of opinion dynamics in a community referendum campaign whose results were often skewed distributions
- Downs in his "Democracy" distributions
- A replication ein simulation showed that initial Gaussian distributions of
 - the attitude towards the issue and
 - the attitude towards the two sources
- were soon distorted to un-Gaussian skewness and kurtosis

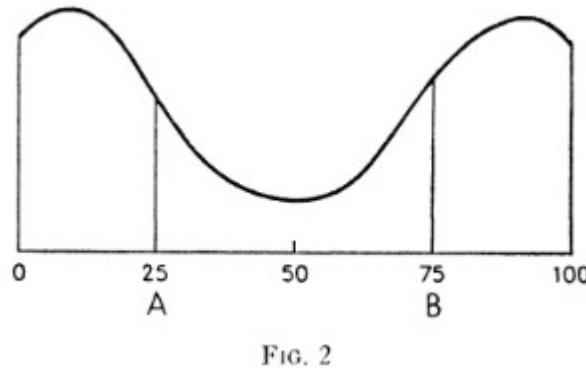
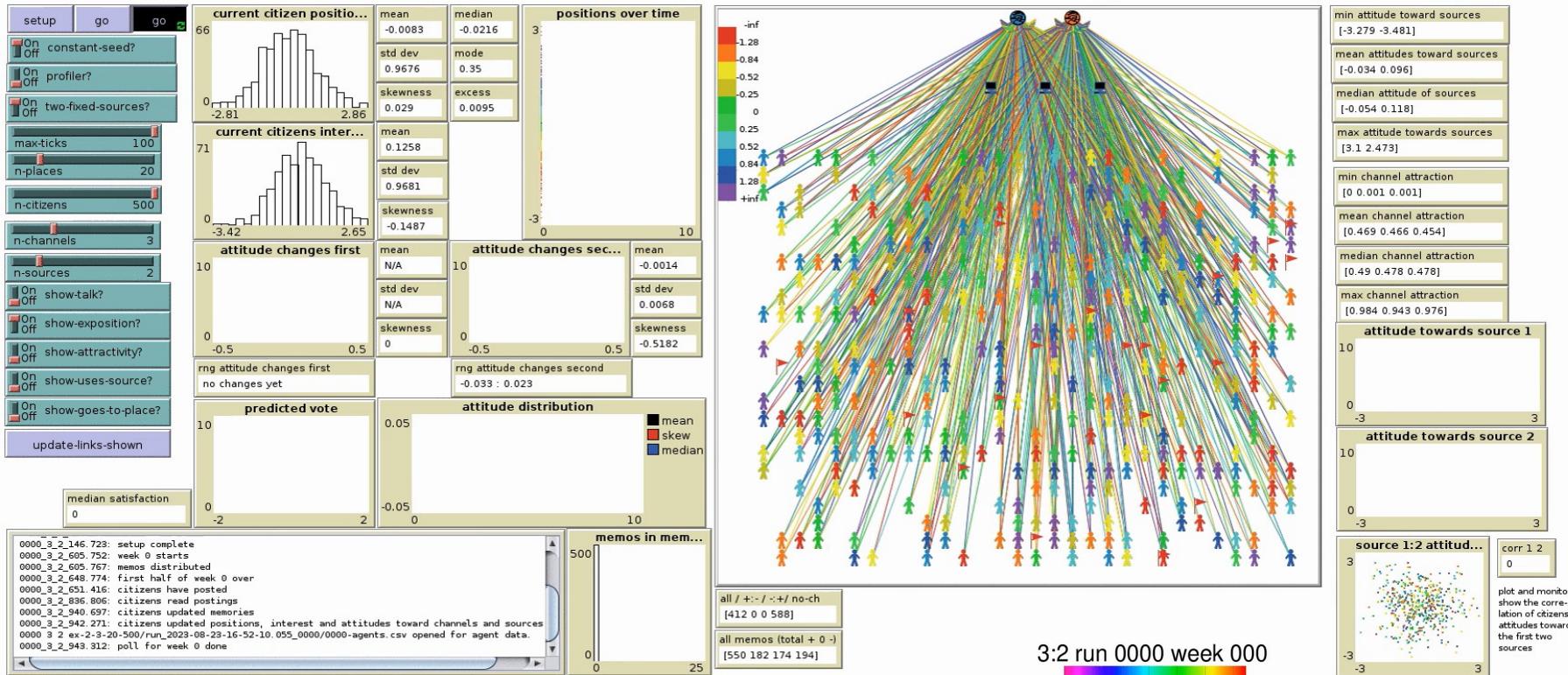


FIG. 2

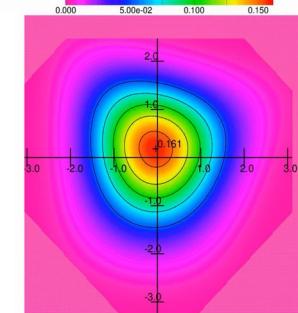
A replication of the Abelson-Bernstein model

- Several hundred agents
- exchange messages via information boards (or WhatsApp groups) and read messages from sources via public channels
- Messages contain information about
 - sender (source)
 - attitude towards the referendum issue
 - time
 - channel through which it was sent
- Agents keep information of
 - messages read
 - channels from which they read messages and how attractive these are
 - senders (sources) of messages and what their opinion of the issue is
- ... and process it to update their interest in the issue, their attitu

A replication of the Abelson-Bernstein model



NetLogo model with 500 citizen agents, two sources, three channels and 20 meeting places



A replication of the Abelson-Bernstein model

- A NetLogo model with 500 citizen agents, two sources, three channels and 20 meeting places
- showed how the joint distribution of the two variables “attitude towards source 1” and “attitude towards 2” changed over time
- — becoming more and more skewed, flatter and multimodal
- With the same initialisations but different random seed, different simulated histories emerge
- → not a model that can predict,
- but a model that shows that and how skewed and/or multimodal distributions of the type predicted by Downs can be generated

Conclusion

- I wanted to show that
 - EVS and ESS lend themselves to interesting analyses of political attitudes and value orientations between countries, country groups and over time
 - analyses which only look at means and standard deviations and neglect other distribution parameters (skewness, kurtosis) cannot tell the whole story
 - six decades ago ideas were already formulated how skewed and multimodal distributions can emerge and how polarisation and extreme attitudes can develop in opinion dynamics scenarios
 - the computing power of the 1960s was not sufficient to show all this

Thanks for your attention!

These slides can be downloaded from [here](#).

The book chapter on which the EVS part of this presentation rests can be found at https://link.springer.com/chapter/10.1007/978-3-031-43440-2_7 together with [supplementary material](#) (available for free). There is also an [additional file with supplementary material](#) (for ESS data).

The [NetLogo model](#) is also available.