# Is the left-right alignment of parties outdated? The German case

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in



Fakten für eine faire Arbeitswelt.





#### Introduction

The advocates of modern democracy promote the viewpoint that the class division of the society is becoming outdated. We attempt to disprove this statement with an example of 28 German parties who participated in the 2013 federal election

The official party positions on 38 policy issues are considered and the parties are associated with vectors of their policy profiles in the corresponding 38-dimensional political space

The statement that there is no predominant political axis implies that the parties are scattered homogeneously, making a ball-shaped cloud of `observations'. However, the Prime Component Analysis (PCA) shows that the parties constitute a thin ellipsoid whose two longest diameters explain 83.4% of the total variance, and the consequent party ordering is the left–right axis rolled in a circumference, making the far-left and far-right ends meet

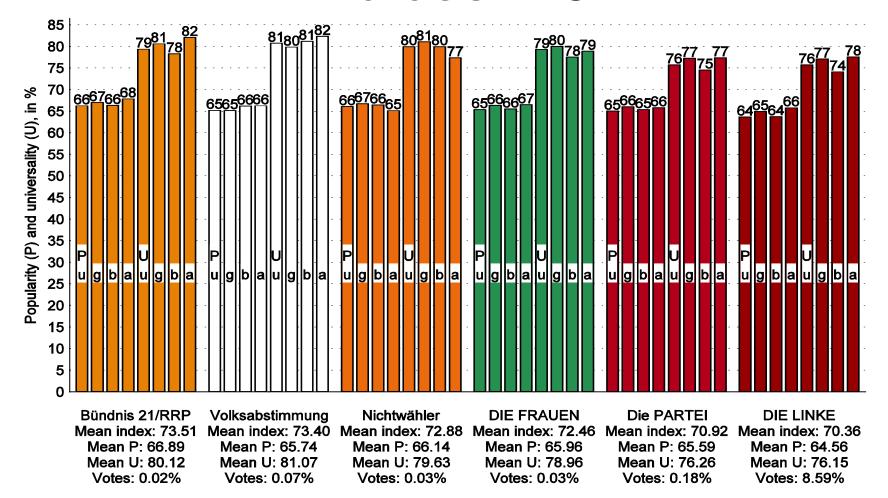
### Data and represenativeness indices

Questions	Question weights				Public opinion Party positions						
	Un- weight- ed (u)	Google hits (g)	) expert	2nd expert A Graef	Pro- tago- nists	An- tago- nists	CDU	SPD	Linke	Grüne	
		$\log_2 K$	0 – 3	0 - 3	%	%	41.6	25.8	8.6	8.4	
Minimul wage	1	10.980	3	3	86	12	No	Yes	Yes	Yes	<u></u>
Compensation for parents	1	9.980	2	3	20	77	Yes	No	No	No	
Speed limit on Motorways	1	8.697	2	1	53	45	No	No	Yes	Yes	

Popularity: weighted average % of the electorate represented Universality: weighted frequency of representing a majority Four versions of each index, depending on weighting:

- $\mathbf{u}$  unweighted (all weights = 1)
- **g** log<sub>2</sub> thousand Google hits
- $\mathbf{b}$  Brigitte Unger's weights (0 3)
- $\mathbf{a}$  Anne Graef's weights (0 3)

#### Indices 1-6









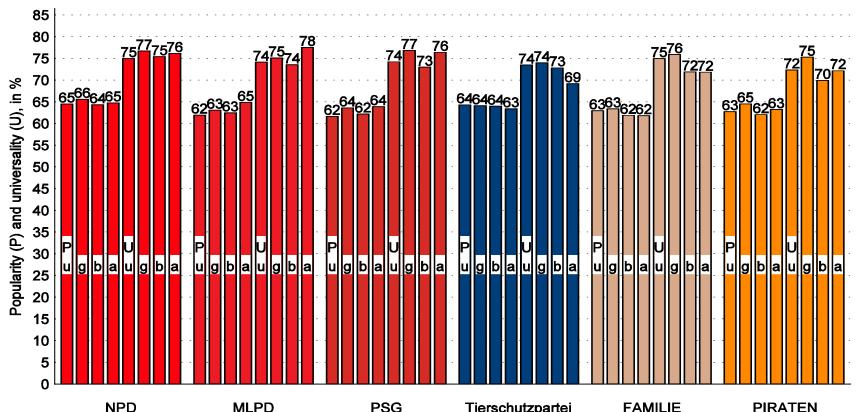








### Indices 7-12



Mean P: 64.85 Mean U: 75.85 Votes: 1.28%

MLPD Mean P: 63.14 Mean U: 75.13 Votes: 0.06%

**PSG** Mean P: 62.89 Mean U: 75.17 Votes: 0.01%

Tierschutzpartei Mean index: 70.35 Mean index: 69.14 Mean index: 69.03 Mean index: 68.22 Mean index: 68.13 Mean index: 67.84 Mean P: 64.01 Mean U: 72.43 Votes: 0.32%

**FAMILIE** Mean P: 62.57 Mean U: 73.69 Votes: 0.02%

**PIRATEN** Mean P: 63.19 Mean U: 72.50 Votes: 2.19%





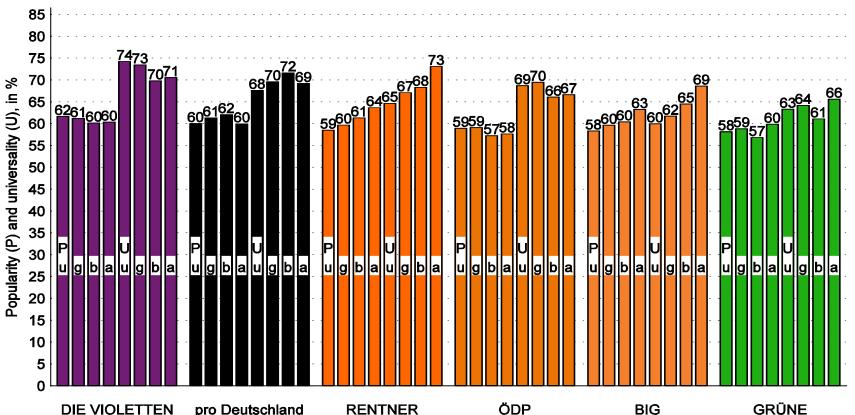








#### Indices 13-18



Mean P: 60.87 Mean U: 72.05 Votes: 0.02%

pro Deutschland Mean index: 66.46 Mean index: 65.21 Mean P: 60.88 Mean U: 69.54 Votes: 0.17%

Mean P: 60.83 Mean U: 68.33 Votes: 0.06%

Mean P: 58.27 Mean U: 67.76 Votes: 0.29%

**BIG** Mean index: 64.58 Mean index: 63.02 Mean index: 62.08 Mean index: 61.02 Mean P: 60.44 Mean U: 63.73 Votes: 0.04%

**GRÜNE** Mean P: 58.46 Mean U: 63.57 Votes: 8.44%





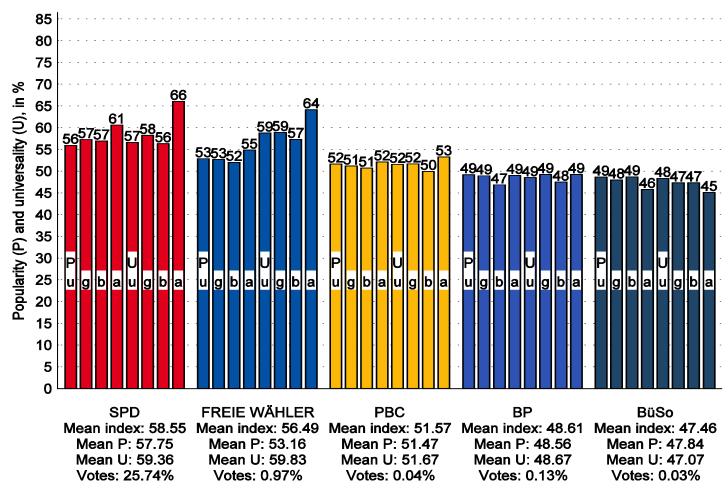








### Indices 19-23





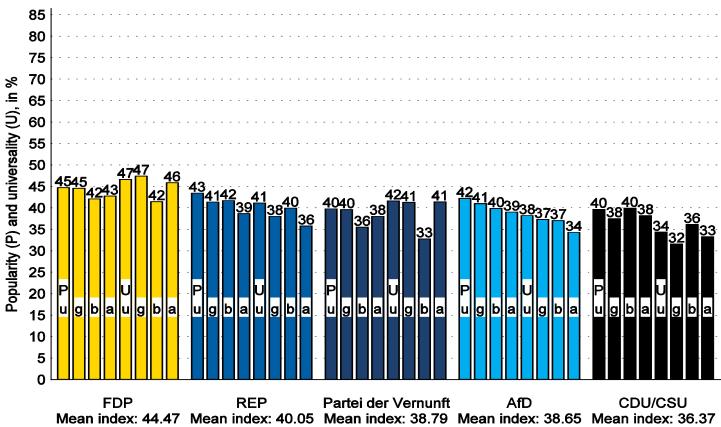








### Indices 24-28



FDP Mean index: 44.4 Mean P: 43.57 Mean U: 45.38 Votes: 4.76%

REP Mean index: 40.05 Mean P: 41.33 Mean U: 38.77 Votes: 0.21%

Partei der Vernunft Mean index: 38.79 Mean P: 38.27 Mean U: 39.31 Votes: 0.06%

AfD Mean index: 38.65 Mean P: 40.55 Mean U: 36.75 Votes: 4.70%

CDU/CSU Mean index: 36.37 Mean P: 38.86 Mean U: 33.88 Votes: 41.55%



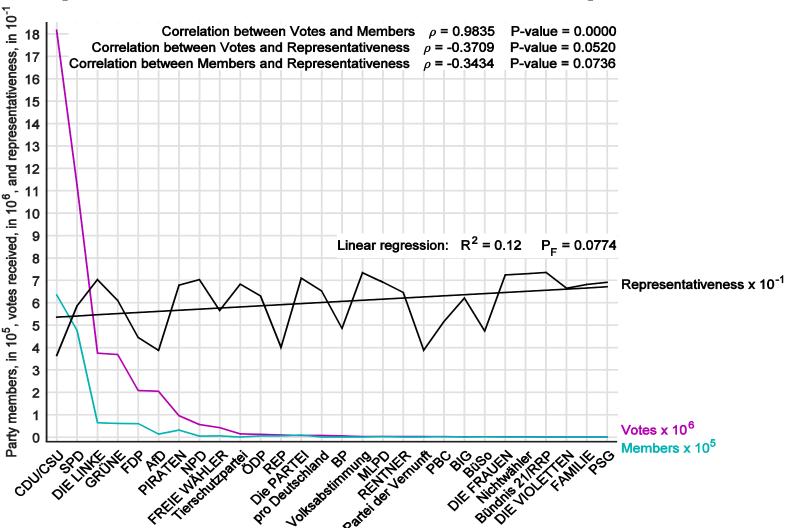




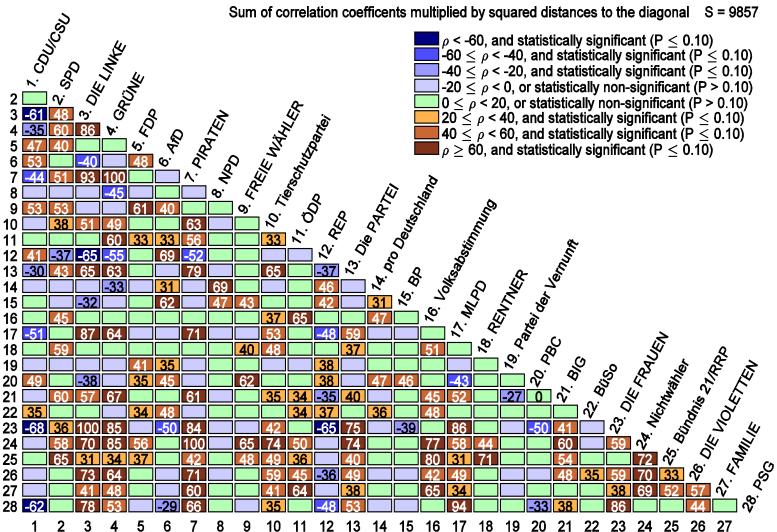




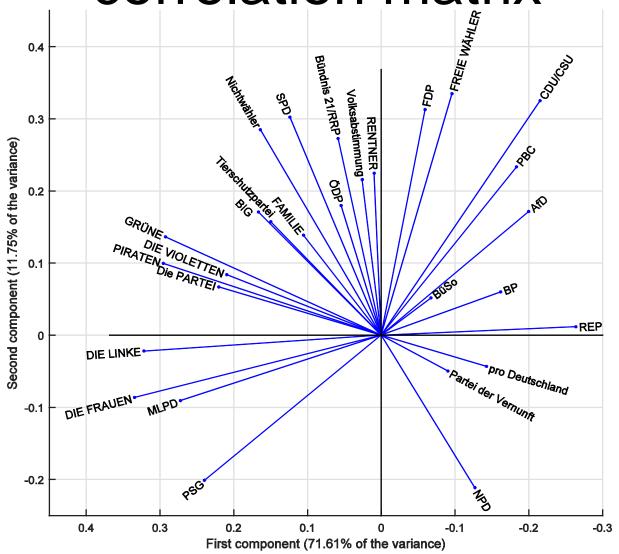
# Party sizes, votes received, and representativeness of parties



# Triangle of party profile correlations in %; parties ordered by votes

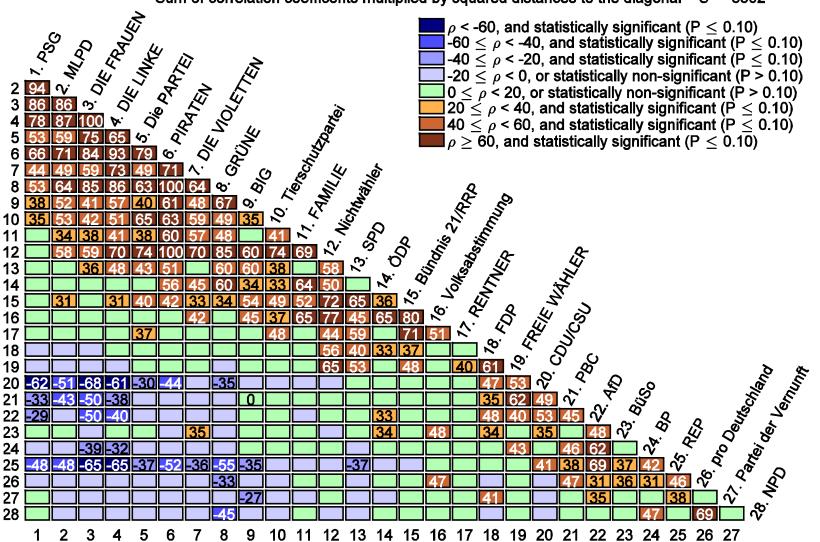


# PCA: Eigenvector plot for the correlation matrix

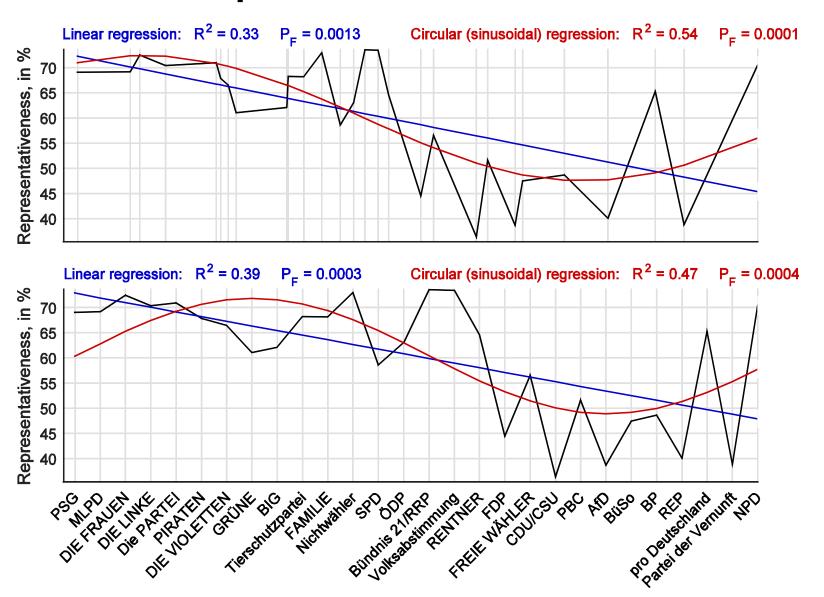


# PCA ordering: Correlation triangle

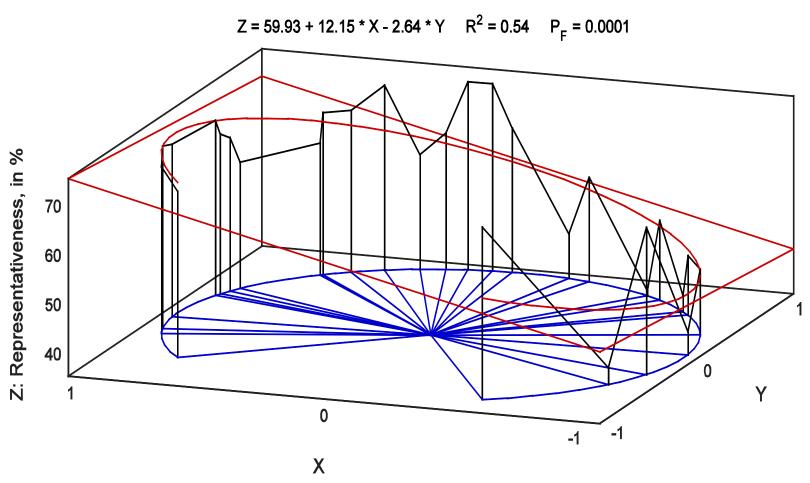
Sum of correlation coefficients multiplied by squared distances to the diagonal S = -3592



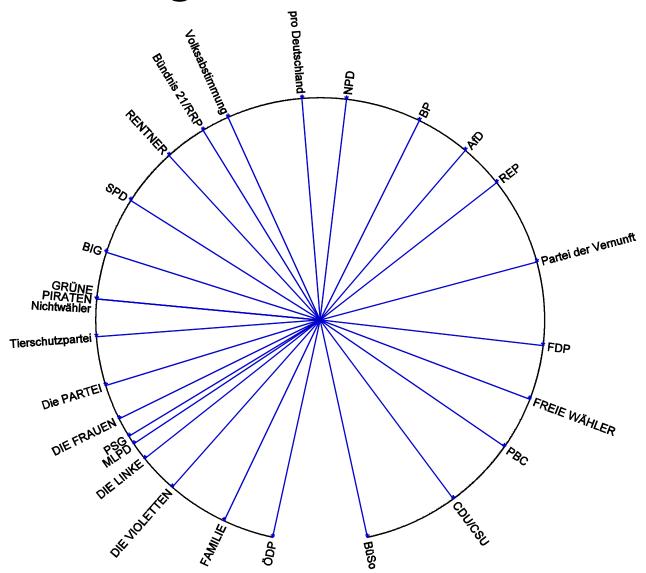
### PCA: Representativeness trends



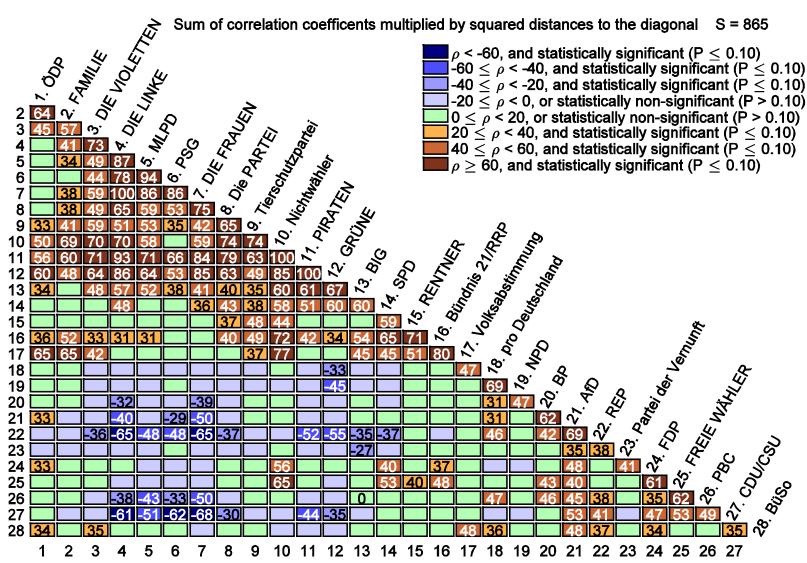
# PCA: Circular (sinusoidal) regression



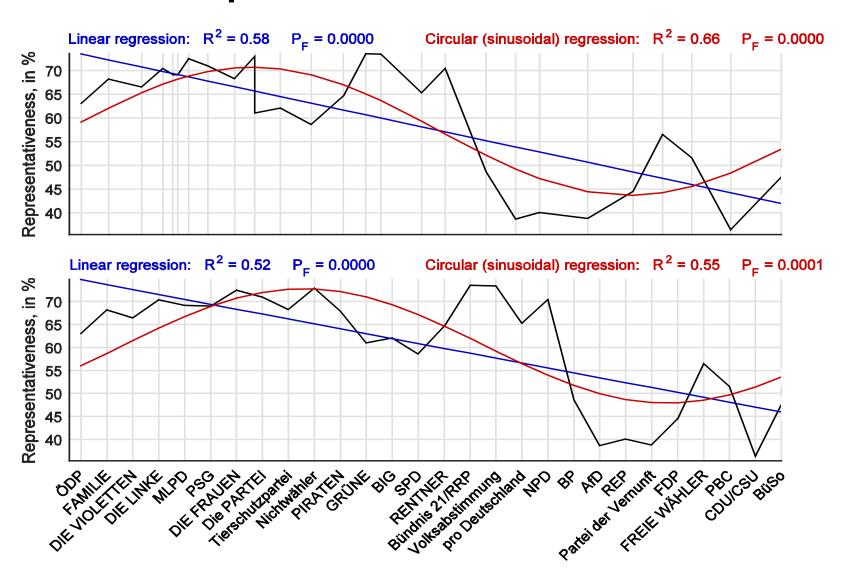
# Traveling salesman solution



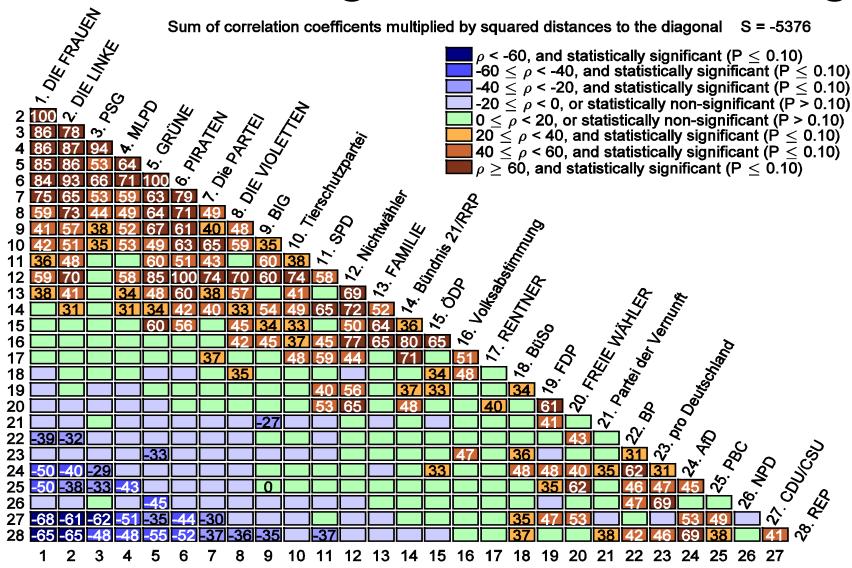
# TSS ordering: Correlation triangle



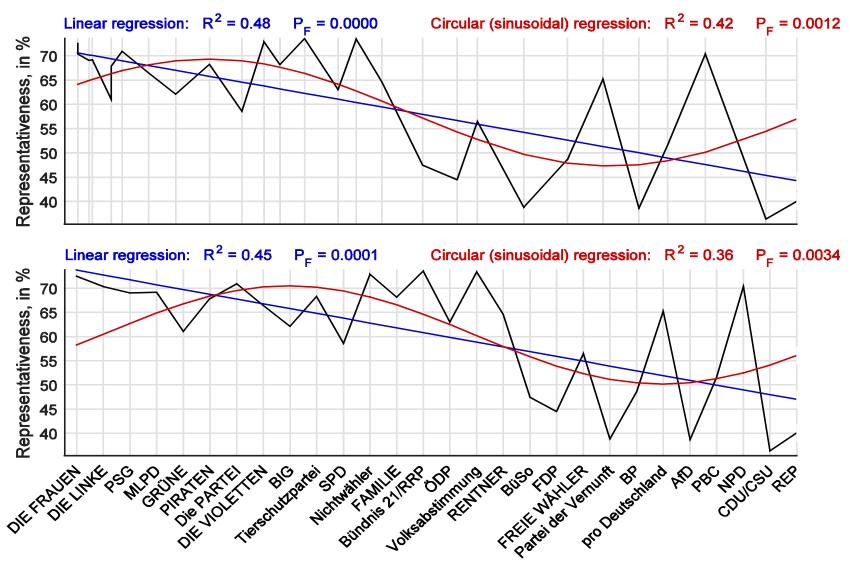
### TSS: Representativeness trends



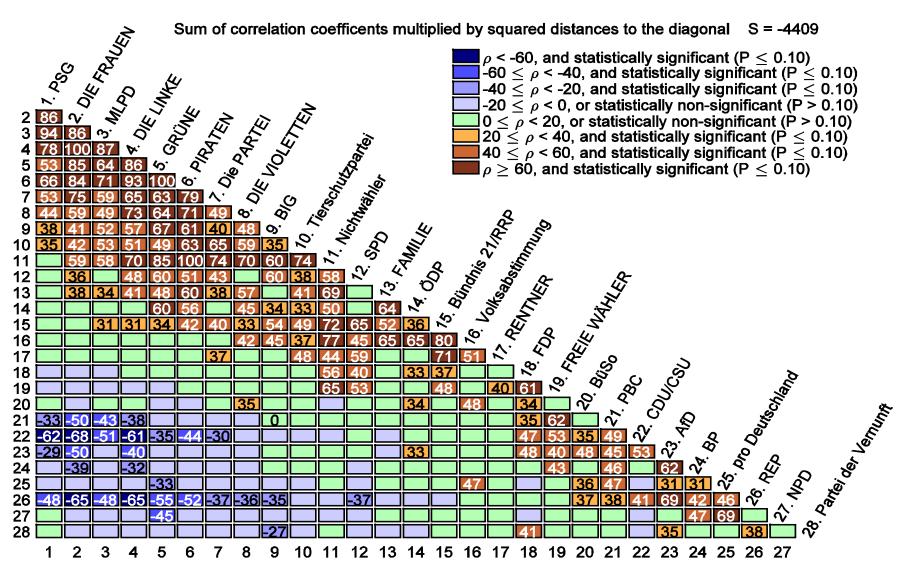
### WLs ordering: Correlation triangle



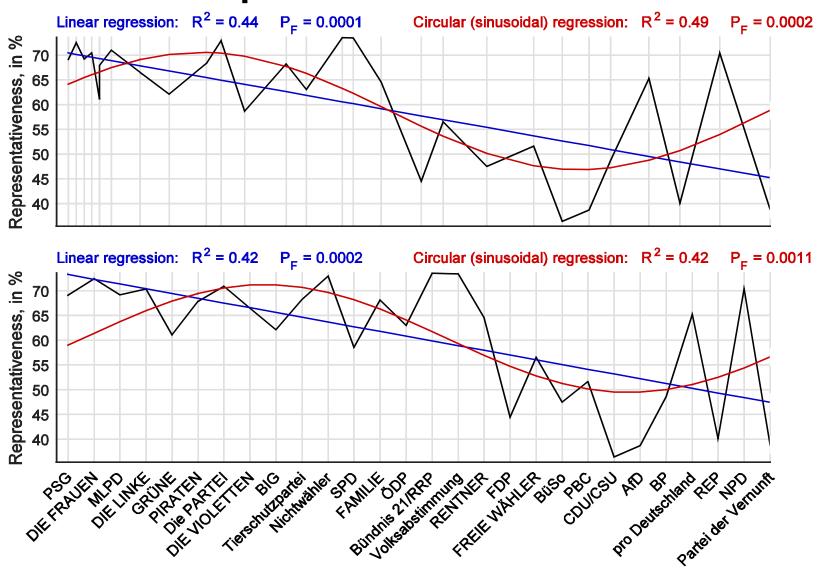
### WLs: Representativeness trends



# WLr ordering: Correlation triangle



### WLr: Representativeness trends



#### Conclusions 1

The "objective" ordering of 28 German parties, obtained formally without any normative assumption, gives the left-right ideological axis rolled in a circumference, making the extreme left-hand and right-hand ends meet

The most convincing result is obtained by dimensionality reduction of the policy space with PCA

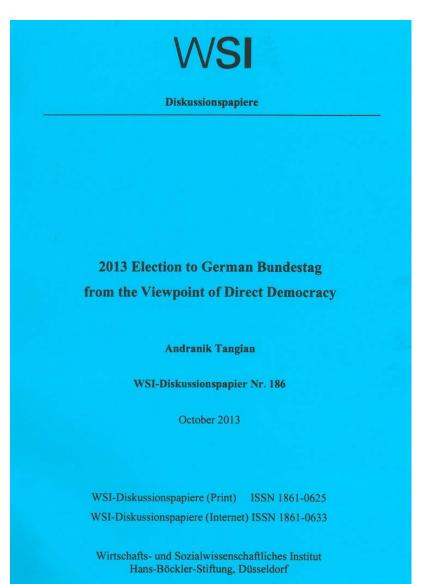
The consequent party ordering exhibits a statistically highly significant dependence between the party's ideological platform and its representativeness, with the left parties being more representative than the right ones

The circular representation demonstrates that the extreme left parties tend to be less representative than moderate left parties, and the far-right parties tend to be more representative than moderate right (conservative) parties

### Conclusions 2

Basing on this empirical evidence, we conclude that the left-right characterization of parties which reflects the class opposition remains valid, being in no case outdated The given study also indicates at the raising far-right wing, whose representativeness already surpasses that of the conservative party that has won the 2013 election As for the moderate left parties, it looks that their superior representativeness can help to restore their influence, which sharply declined after the collapse of communism in the end of the 20th century

### References on the methodology



Studies in Choice and Welfare Andranik Tangian Mathematical Theory of Democracy Springer