Is Britain Pulling Apart? Evidence from the analysis of Social Distance

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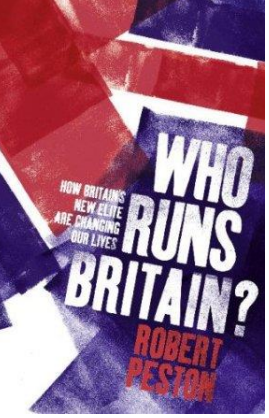
http://www.camsis.stir.ac.uk/pullingapart
http://www.twitter.com/pullingapart
http://pullingapartproject.wordpress.com/

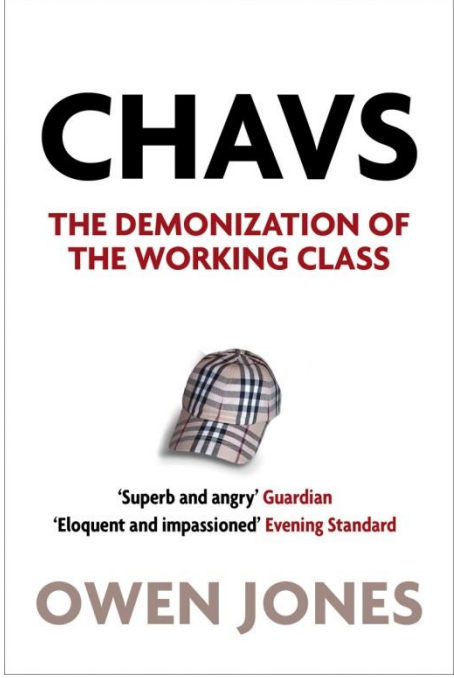
Studying patterns in Social Distance

1) Introduction: trends in social inequality and social distance
2) Social distance patterns in Britain for markers of lifestyle
3) Social distance patterns in Britain in socio-economic inequalities



A Divided Britain?

- Popular Social Science publications portray Britain as divided, but where is the dividing line?
  - Bankers vs rest (Hutton, 2011)
  - Politicians/companies vs rest (Peston, 2008)
  - Rest vs working classes (Jones, 2011)
- Strong public debate, often lacking evidence, on scale of social divisions
- Ubiquity of discourse leads to perception amongst informed public that Britain is divided (& dividing)



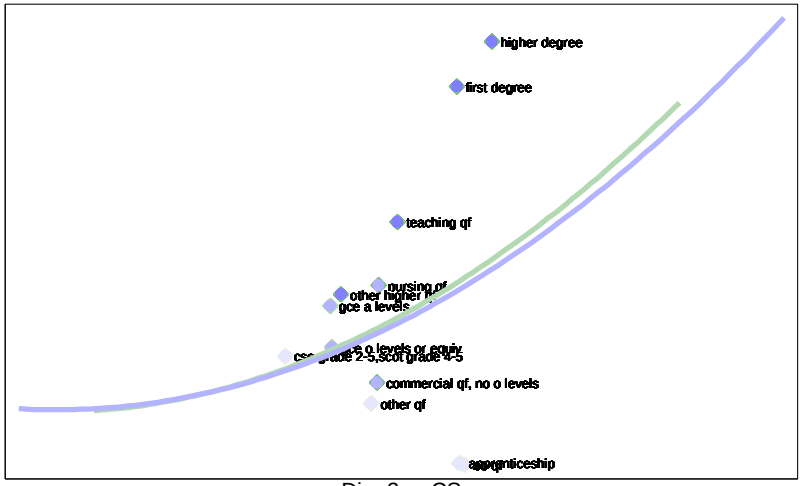
Britain's divides are not just economic!

Culture / lifestyle inequalities
(e.g. Bennett 2009, Savage et al. 2013)

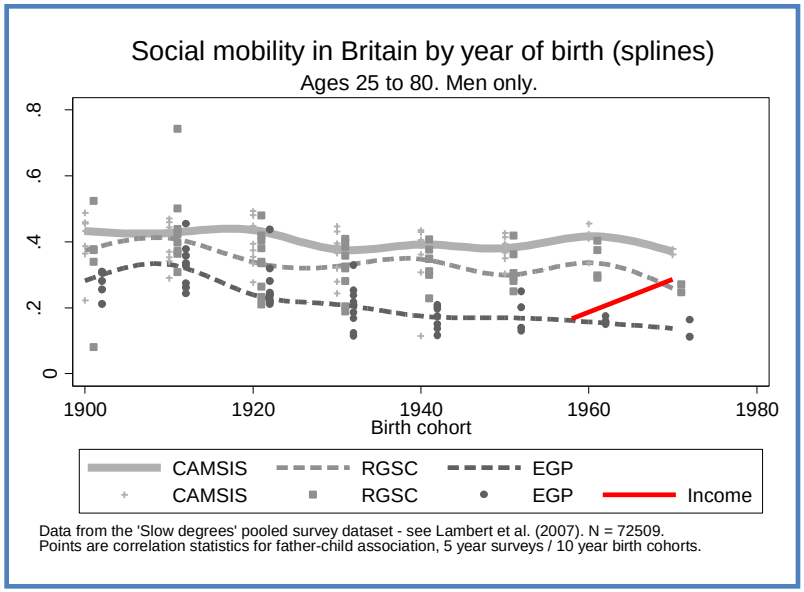
In our favoured terminology, it's interesting to investigate
'consequential gaps' by 'social groups'

Methodological issues

- Summarising social groups is obviously problematic
- Consistent meaning/coding
- Change over context in relative meaning
- We often use scaling of categories and/or devices that preserve detail



- Evaluating a temporal trend isn't easy either!
- Need for multiple time points



- Tools for evaluating trends
- *E.g., testing whether trends in statistics fit best to stability, linear, quadratic shape*

Are we really interested in inequalities, or in trends in inequalities?

- *It's important to study inequality regardless of temporal trends!*
- Most things, in Britain, are pretty stable, but some things do change
  - Work, leisure, housing, family
  - Education, the internet, family formation, health, pollution
- Many studies highlight social change in the distribution of income, deprivation, education, health, etc
  - Not all evidence points the same way, but common view that polarisation has risen slightly since 2000, & will rise further (e.g. ETUI 2012; Dorling 2011; Gibbons et al. 2005)
  - Stories about social inequalities between some social groups are more varied (cf. Finney and Simpson 2009; Evans &Tilley, 2011; Jivrav 2012)
- Plenty of interesting theories of social change or stability
  - …E.g. Bourdieu 1977; Marks 2014; Erikson and Goldthorpe 2010
  - …French pessimism; American optimism; English diffidence…

Studying 'consequential gaps' between 'social groups'

- Where the groups sit in the social structure may often be shaped by correlated demographic/unimportant differences
  - e.g. age, region and ethnicity
  - changes in position over time might be conflated with cohort related specificities (though that could be ok)

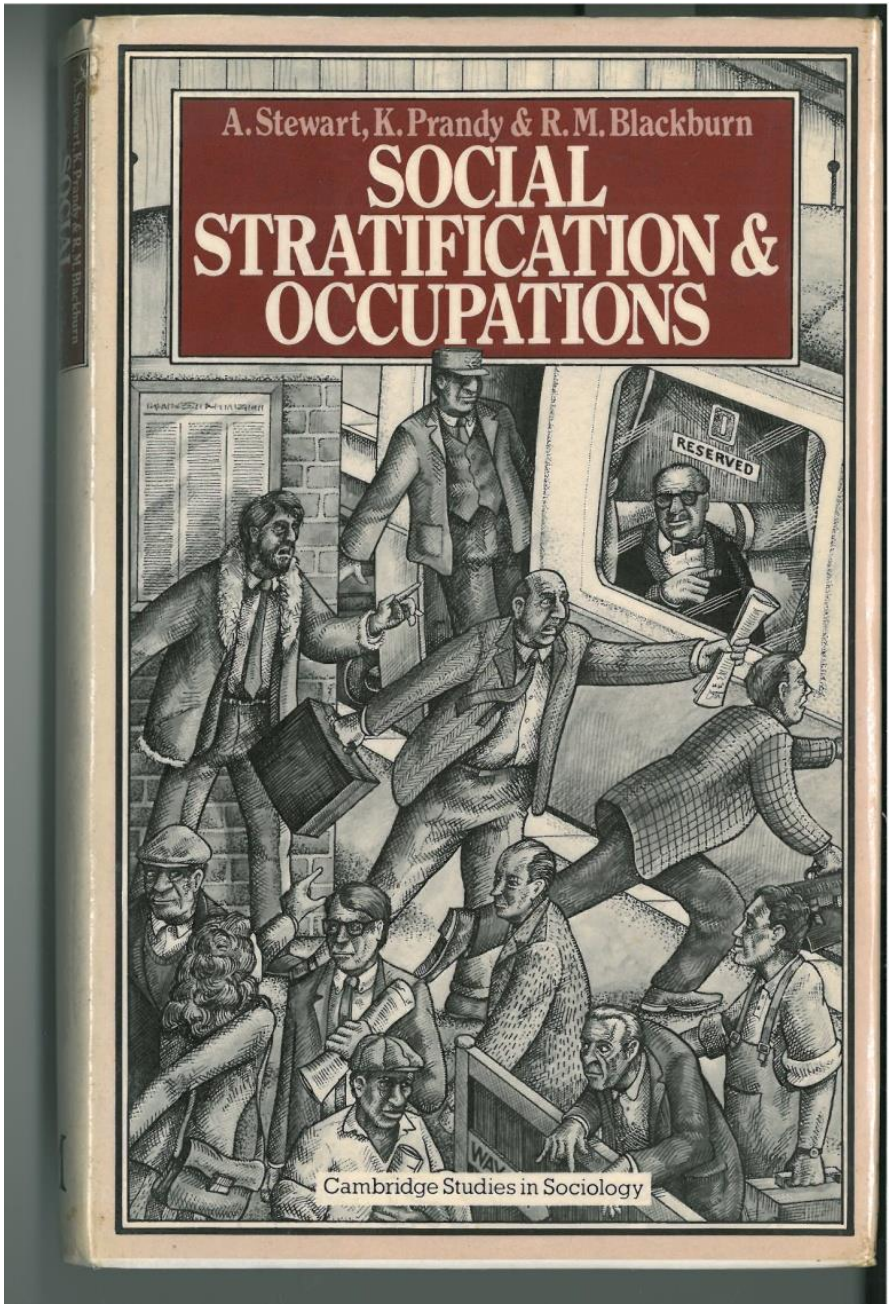
- One alternative is to study instead the social position as realised through the enduring social organisation reflected in social interactions
  - Social support and connections central to our lives, and people use social contacts to reproduce their circumstances and society itself (…e.g. Lauman 1973, Christakis and Fowler 2012…)

➢ **Leads to focusing on 'social distance'**

'Social distance'

- Generically, social distance = how far away A is from B, on the basis of {likely} levels of social contact
- *Contact levels assessed through measurable social interactions (friendship, marriage, family)*
- *A and B are usually social units; we typically see several empirical dimensions that characterise the pattern of social contacts*
- Previous research on social distance between occupational categories

(e.g. www.camsis.stir.ac.uk ; Lauman & Guttman 1966; Chan 2010)



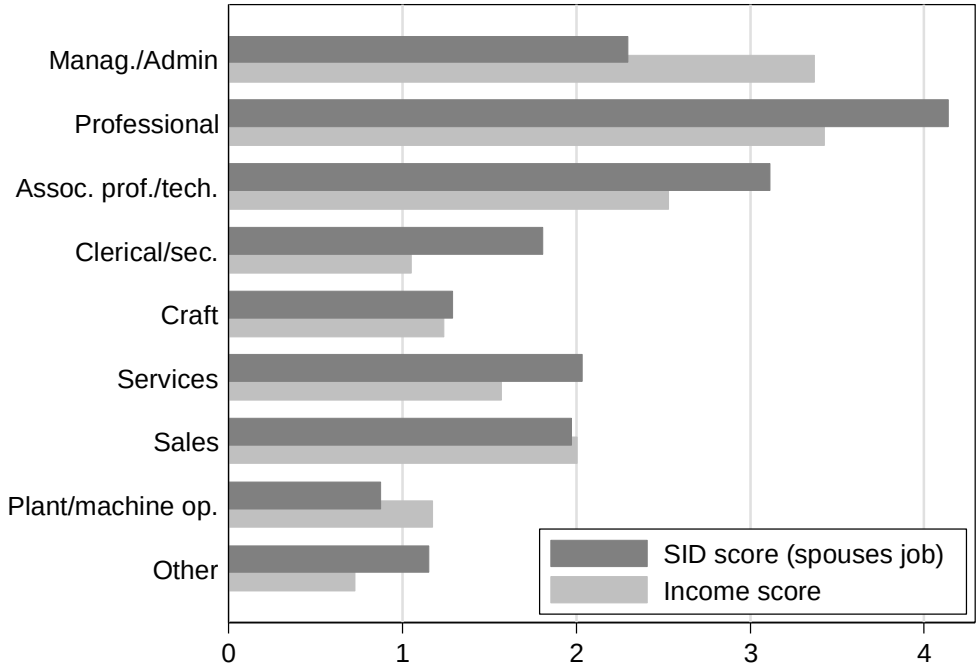
Social distance = social structure that is revealed through analysing ties

Why study social relations, social connections and social distance?

(a) Consequential individual level outcomes correlate data on alters

- Strong empirical effects of spouses, parents, friends, social capital, etc

Bivariate correlation*100 to… (UKHLS 2009) *(ul=sig. effect net of own characteristic)*				
	Inc.	Health	GHQ	Green
Spouse has degree	21	16	5	14
Father's job	15	14	3	9



Source: Analysis of married males in BHPS. Scores mean standardised plus 2.

(b) Social structure as defined by social distance is revealing

- Interaction structure not identical to other structures and of theoretical interest (?the trace of social reproduction)
- May be particular connections of interest (e.g. bridging ties)
- Info. on mechanisms of inequality

Why study social distance?

…Also some recent innovations in the area covering data and methods…

- Evolution of relevant methods of network analysis, multilevel modelling, & association modelling
- Complex contemporary datasets increasingly allow reconstruction of data about social connections
  - **Current household sharers from household level datasets**
  - **Previous household sharers (& their new alters) from longitudinal household datasets**
  - **Proxy questions on alters on certain new (& old) datasets**
  - *'Reconstitutions' with administrative data e.g. using information on shared households/family/institutions*
  - *New wave of interest in proxy questions on social connections, e.g. lifestyle questions; position generators*

-> today's data sources

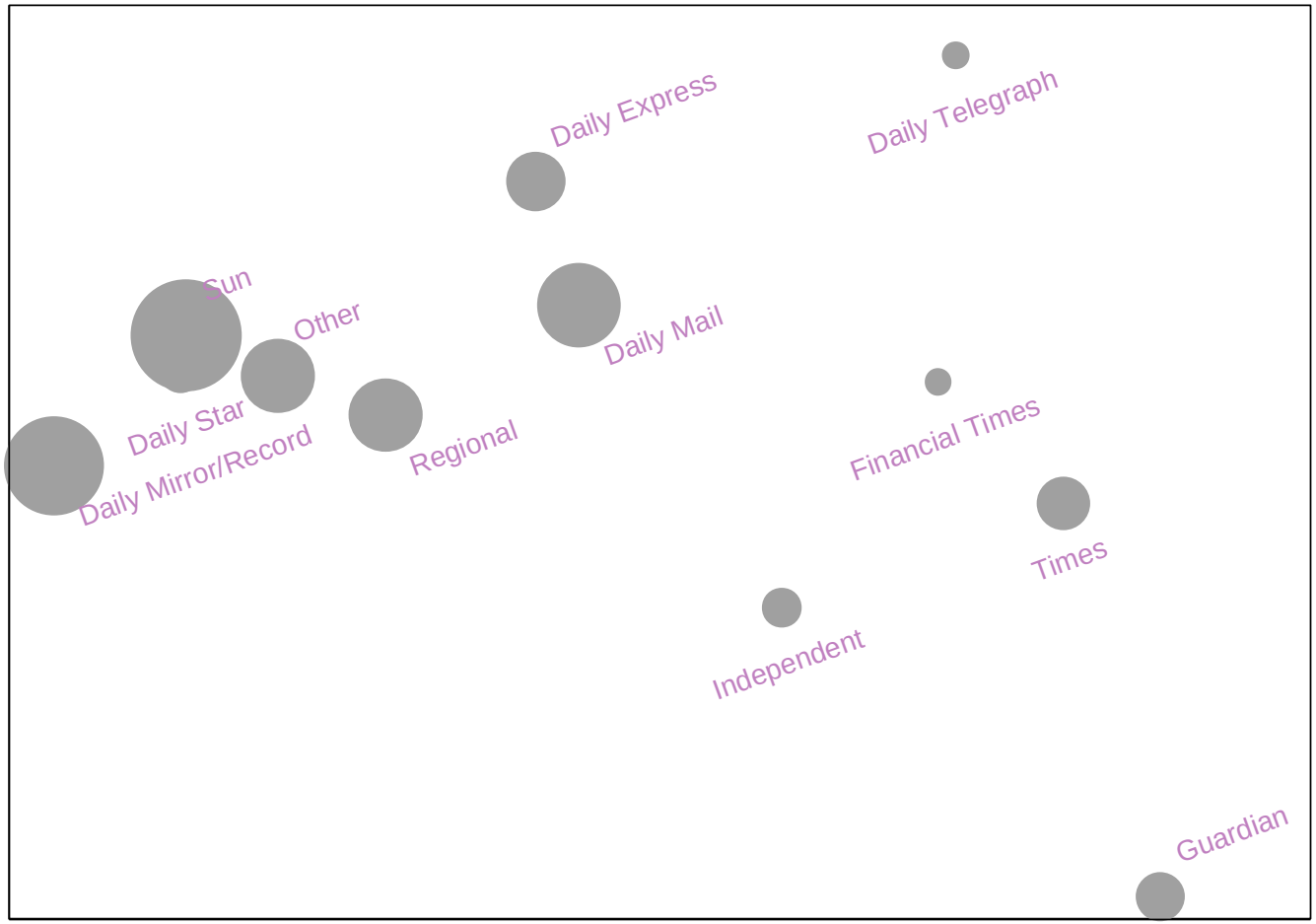
- UK data on friends and families
  - Using proxy data from social surveys (questions on friends)
    - 1972 Nuffield; 1974 SSGB; 1991-2004 BHPS; c2011 UKHLS
  - BHPS household sharer data (current or previous sharer)
  - UKHLS household sharer data (current sharer)
- UK and international data on spouses
  - GHS household sharer data (spouse) (1972-2004) [ONS, 2007]
  - LFS household sharer data (spouse) (1997-2013)
  - IPUMS-I records on self and spouse using, for convenience, harmonised measures of occupations (ISCO 1-dig), education, ethnicity and religion
  - Survey data with records on spouses from European Social Survey and ISSP

-> today's methods

- Descriptive tools for summarising patterns of social interaction between social groups and over time
  - Correspondence analysis / association modelling to identify subsidiary dimension structures
  - Social network analysis techniques to highlight patterns of connections and their changes
  - Loglinear modelling of the volume of connections as a function of type and time
- Descriptive tools for summarising long-run social change in patterns of social distance
  - Cohort /time period, and cross-national, trends in association patterns (homogamy, homophily)
  - Model fit evaluations contrasting observed and predicted trends

2) Social distance patterns in Britain for markers of lifestyle

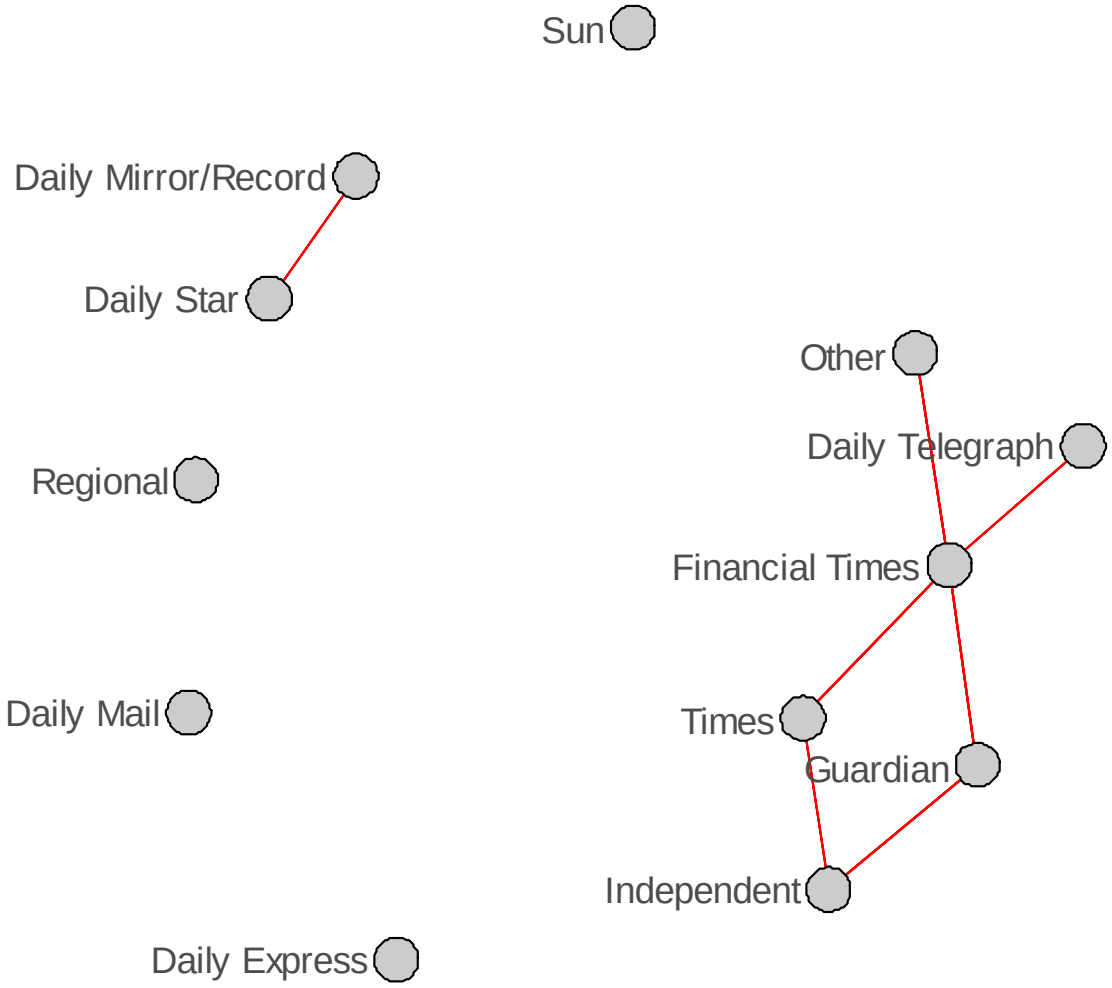
1st 2 dimensions of social distance between newspaper readers
(BHPS analysis of spouses; model includes 'diagonals')



Change over time? BHPS Correlations between newspaper readership dimension scores and other measures, by age groups

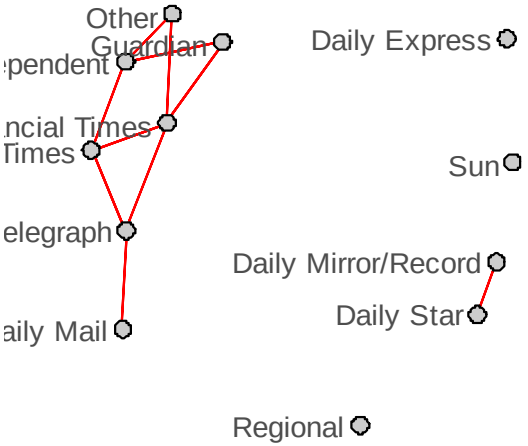
	Dim 1 (newsp)			**Indv CAMSIS (most recent job)**		
	All (n=9409)	*Pre-1960 (n=3156)*	*Post-1960 (n=3046)*	All	Pre-1960	Post-1960
Ego-alt corel.	0.79	0.86	0.73	0.39	0.43	0.39
`` newsp. asc.	0.62	0.72	0.58			
	Sqrt of r2 or pseudo-r2 linear or logit regression					
Smoking	0.16	0.19	0.08	0.19	0.16	0.17
Self-confid.	0.02	0.01	0.01	0.02	0.02	0.03
Pers. Income	0.15	0.16	0.05	0.26	0.24	0.22
Home own/b.	0.14	0.25	0.04	0.22	0.23	0.16
Volunteer	0.21	0.16	0.20	0.16	0.22	0.12
Any invest Inc.	0.24	0.25	0.26	0.22	0.25	0.21
Age (linear)	0.06	0.04	0.14	0.01	0.10	0.08
Gender	0.03	0.03	0.01	0.05	0.05	0.14

All adults (1991-2011)

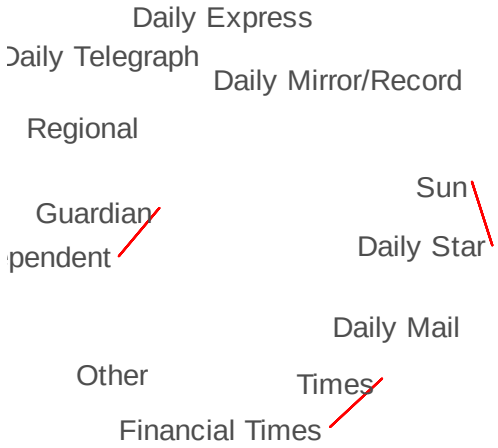


Nodes represent newspapers; ties between nodes indicate it's relatively more common for two individuals who read the two papers to have a social connection (here using co-residence)

Births after 1960 (1991-2011)

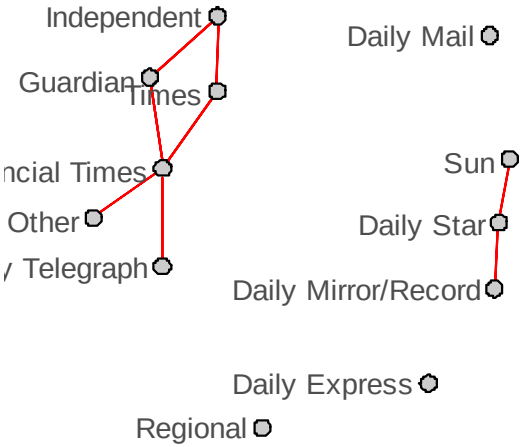


Births before 1960 (1991-2011)



(Comparisons suggest ageing and/or cohort change in social distance?)

Recent adults (2004, 2011)



Earlier adults (1991-8)

‘Catnets’ in leisure and consumption?

- **Cat**egories of social **net**works (White, 1992)
  - E.g. a student might have networks amongst others from the same course, same halls, same sports teams (and combinations of more than one)
- Concept can be applied to homophily:
  - Do my friends vote the same way as me? Read the same papers as me? Have similar levels of education?
    - Both vote like me and read the same paper?
- {Homophily itself likely to result from several different processes - propinquity, attraction, assimilation}

Example: UKHLS, Wave 3 (2011-2), categories in 4 domains

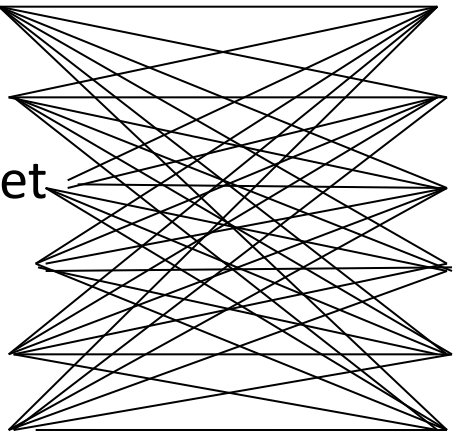
Education (n=48,666)	Paper type (n=25,469)	Political views (n=32,577)	Religion (n=37,386)
University (33%)	Broadsheet (28%)	Left (43%)	Catholic (14%)
Non-univ. (52%)	Tabloid (55%)	Centre/left (3%)	Protestant (13%)
No quals. (15%)	Regional (17%)	Centre (8%)	Anglican (39%)
		Centre/right (3%)	Islam (7%)
		Right (34%)	Hindu (3%)
		Right/left (10%)	Jewish (0.5%)
		Left/right/centre defined by political party supported and newspaper read (defined as majority voters for paper). Those with different party and newspaper outlooks in composite categories.	Sikh (1%)
			Buddhist (0.5%)
People in survey: 49,739	Only allocated if respondent indicated a newspaper that they often read. 'Broadsheet' defined if over 50% of readers in UKHLS are graduates (cf. technical definition)		No religion (22%)
			Missing data and 'other' category omitted

- Uneven number of categories and levels of missing data
- Newspaper has influence on paper type and politics
- Education correlates strongly with paper type
- Modelling interpretation should be able to take these issues into account

Empirical combinations of categories between an ego (left) and alter (right) were studied here in terms of values over 2 measures

Ego: University, Catholic, left, broadsheet

- University+Catholic
- University+left
- University+broadsheet
- Catholic+left
- Catholic+broadsheet
- Left+broadsheet



Alter: Univ., Islam, centre, tabloid

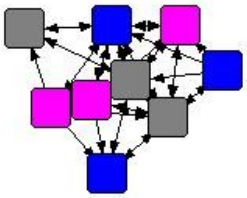
- University+Islam
- University+centre
- University+tabloid
- Islam+centre
- Islam+tabloid
- Centre+tabloid

- Up to 6 'identities' can be created per person (36 possible identity combinations per couple)

- Exemplar combination above shows homogamy in terms of education, but not in terms of religion, politics or news consumption

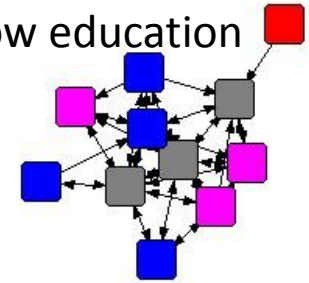
Combinations that occur >10 times expected ratio, & at least 7 times in total (UKHLS, Wave 3) Colours reflect the two categories comprising the characteristic.

Hindu

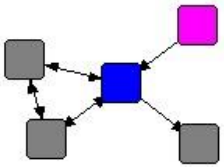


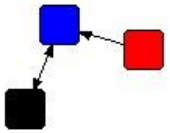
Religion dominates the most over-represented social interaction patterns

Islam, low education



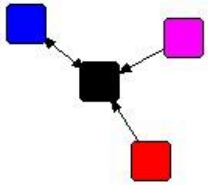
Sikh, low education

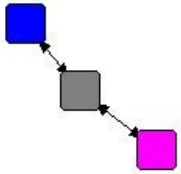




Centre/Right, higher educ.

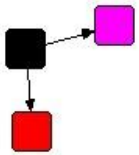
Protestant, Centre, higher educ.

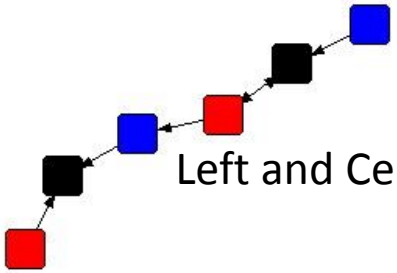




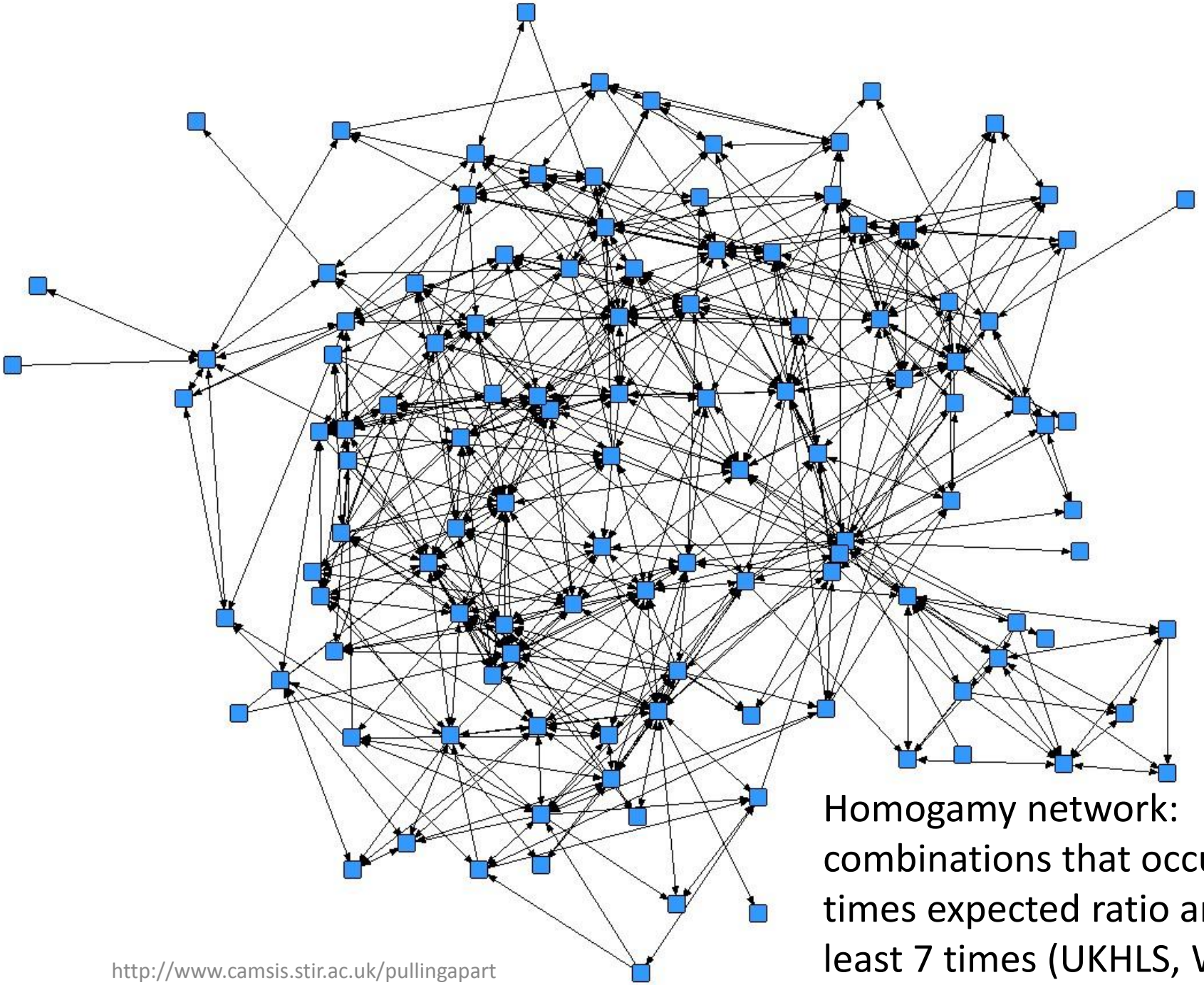
Jewish, higher educ.

Regional, Centre





Left and Centre



Homogamy network: combinations that occur >2 times expected ratio and at least 7 times (UKHLS, Wave 3)

QAP Regression of over-represented ties (UKHLS – Wave 3)

Ties occurring at least twice as often as expected:
Homogamy: and at least 7 times (174k observations)
Homophily: and at least 3 times (8.9k observations)

Homogamy	All	Younger	Older
Religion	.09**	.12***	.12***
Two-categ.	.27	.27***	.27***
Edu	.12**	.06***	.06**
Views	.05*	.03	.03*
Paper type	.01	.15***	.15***
Adj. R2	.18**	.24***	.24***

Homophily	All	Younger	Older
Religion	-.02	.21***	.07***
Two-categ.	.93	.62***	.64***
Edu	.03*	.06**	.12***
Views	.04*	.01	.06***
Paper type	-.000*	-.002	-.003
Adj. R2	.94*	.67***	.64***

Homogamy shows little difference between younger and older cohorts.

Different results when combined, and therefore similar overall pattern through different connections.

Political views and education alter between cohorts.

Homophily shows differences between younger and older cohorts and little cohesion when assessing all.

Political views only significant for older cohort, but effects on education and religion coefficients also.

QAP Regression of over-represented ties (BHPS – wave 1)

Ties occurring at least twice as often as expected:
Homogamy: and at least 3 times (15,779 observations)
Homophily: and at least 3 times (3,795 observations)

Homogamy	All	Younger	Older
Religion	.05**	.04**	.09***
Two-categ.	.39***	.43***	.55***
Edu	.06**	.09***	.06**
Views	.23***	.18***	.11***
Paper type	.06*	.12***	-.00
Adj. R2	.43***	.52***	.52***

Homophily	All
Religion	.29***
Two categ.	.13***
Edu	.28***
Views	.01
Paper type	.09**
Adj. R2	.55***

Apparent changes over time:
Paper type significant for younger but not older; Political views appear to differ; Religion more important for older cohort;

Different pattern to homogamy :
- Friends more likely to be same religion
- Political views less important
- Education more common

(but, different patterns to UKHLS)

Schematic example of using loglinear model to assess forms of homogamy, using 'diagonal' terms

Husband	Wife	Guardian			Times			Mirror		
		Lab	Con	Lib	Lab	Con	Lib	Lab	Con	Lib
Guardian	Lab	166	2	11	3	0	1	5	0	0
	Con	8	4	2	0	1	0	0	0	0
	Lib	7	2	14	0	0	1	0	0	0
Times	Lab	7	2	1	41	6	8	2	0	0
	Con	2	0	0	13	103	18	0	0	0
	Lib	0	0	1	7	7	13	0	0	0
Mirror	Lab	1	0	0	2	0	1	140	3	5
	Con	0	0	0	0	0	0	5	4	2
	Lib	0	0	0	0	0	0	0	1	3

UKHLS, Wave 3: 625 couples who both read one of the Guardian, Times or Mirror, and both vote for one of the three main parties.

78.1% vote the same and read the same (complete homogamy)
17.1% read same paper but vote differently (newspaper homogamy)
3.7% vote the same but read different paper (voting homogamy)
1.1% vote different and read different papers (complete heterogamy)

	LL	Degrees Freedom	Delta	BIC	% of BIC decrease
Independence	164,787	19,881	.3450	3,166,621	
+ education*paper	162,014	19,872	.3401	3,169,958	(+3.3%)
+ paper*religion	161,193	19,854	.3400	3,163,356	3.3%
+ education*views	161,173	19,863	.3388	3,163,226	3.4%
+ religion*views	159,660	19,835	.3386	3,162,053	4.6%
+ paper*views	159,657	19,866	.3378	3,161,674	4.9%
+ education*religion	157,071	19,854	.3354	3,159,234	7.4%
+ Education	153,004	19,878	.3244	3,154,875	11.7%
+ Two-categ.	137,471	19,739	.3056	3,141,031	25.6%
+ Views	138,783	19,875	.3066	3,140,691	25.9%
+ Paper type	138,718	19,878	.3037	3,140,589	26.0%
+ Religion	123,278	19,872	.3035	3,125,222	41.4%
Full	63,297	19,576	.1952	3,068,838	
Full (except 2 level)	63,297	19,718	.1952	3,067,112	
Full (except 2 level & two-categ)	64,449	19,860	.2057	3,066,539	

Loglinear models for homogamy using the volume of 2-category combinations (with terms for 'diagonals')

UKHLS Wave 3: 190k cases from 11,801 couples.

No evidence that 2-category diagonals are important, but 1-category diagonals are.

Conclude: We have some similarity to partners, but not too much.

	LL	Degrees Freedom	Delta	BIC	% of BIC decrease
Independence	16,770	9,025	.349	263,898	
+ education*paper	16,625	9,016	.347	263,842	0.6%
+ paper*religion	16,607	9,011	.347	263,873	2.8%
+ education*views	16,153	9,009	.338	263,438	5.1%
+ religion*views	15,873	9,001	.335	263,237	7.3%
+ paper*views	16,618	9,013	.347	263,864	3.7%
+ education*religion	15,276	9,004	.323	262,611	14.2%
+ Education	14,787	9,022	.316	261,945	21.5%
+ Two-categ.	13,420	8,929	.292	261,488	26.5%
+ Views	14,168	9,019	.306	261,356	28.0%
+ Paper type	15,580	9,022	.336	262,737	12.8%
+ Religion	12,871	9,018	.300	260,067	42.2%
Full	7,596	9,006	.204	254,910	
Full (except 2 level)	7,482	8,814	.196	256,678	
Full (except 2 level & two-categ.)	7,483	8,910	.196	255,738	

Loglinear models for homogamy using the volume of 2-category combinations (with terms for 'diagonals')

BHPS wave 1: 18,008 cases on 2,823 couples

Dominance of religion (=UKHLS); education appears stronger in 1991; educ*religion more 'divisive' than type of paper read.

Homogamy effects broken down by age

	Young (both born since 1960)		Older (both born pre 1960)	
	Delta	BIC	Delta	BIC
Independence	.3316	1,305,092	.3674	1,409,536
Full	.2013	1,273,373	.2145	1,365,769
Full (except 2 level)	.2013	1,271,772	.2145	1,364,188
Full (except 2 level & 2-c)	.2951	1,300,583	.2264	1,363,381

UKHLS Wave 3:
95k cases from 4.9k couples for older;
79k cases from 5.8k couples for younger

Older cohort are more homogamous

Delta for independence model for younger cohort lower than for the education and religion models for older.

No evidence of 'pulling apart'

Religion becomes relatively more important for younger cohort?

Young (both born since 1960)			Older (both born pre 1960)		
	Delta	% of BIC decrease		Delta	% of BIC decrease
Education	.3128	3.8%	Education	.3457	12.1%
Views	.3049	14.8%	Two-categ.	.3270	24.7%
Paper type	.2996	15.8%	Religion	.3398	26.5%
Two-categ.	.2951	18.4%	Paper type	.3206	30.9%
Religion	.2851	54.7%	Views	.3177	35.9%

Homogamy effects broken down by age

	Young (both born since 1940)		Older (both born pre 1940)	
	Delta	BIC	Delta	BIC
Independence	.335	149,521	.371	85,139
Full	.202	145,696	.229	83,439
Full (except 2 level)	.202	146,518	.229	82,820
Full (except 2 level & 2-c)	.201	144,958	.242	82,281

BHPS wave 1 (1991): 6,096 cases from 842 couples for older; 10,292 cases from 1,769 couples for younger

Again, older cohort are more homogamous, but very similar

Religion and political views remain important, but weaker relationship. Increase in educational similarity, but lowering of types of newspaper read.

Similar patterns but small reduction in homogamy? No evidence of 'pulling apart'.

Young (both born since 1940)			Older (both born pre 1940)		
	Delta	% of BIC decrease		Delta	% of BIC decrease
Paper	.326	10.6%	Education	.363	6.6%
Two-categ.	.283	20.3%	Two-categ.	.314	20.1%
Education	.308	23.8%	Paper	.350	23.8%
Views	.297	28.2%	Views	.326	42.9%
Religion	.295	42.5%	Religion	.319	57.1%

Born Cohort *Sample*	Pre-1940 older *1991*	1940-1973 younger *1991*	Pre 1960 older *2011/12*	Post 1960 younger *2011/12*
Independence	.371	.335	.367	.332
Full	.229	.202	.215	.201
Full (except 2 level)	.229	.202	.215	.201
Full (except 2 level & 2-c)	.242	.201	.226	.295

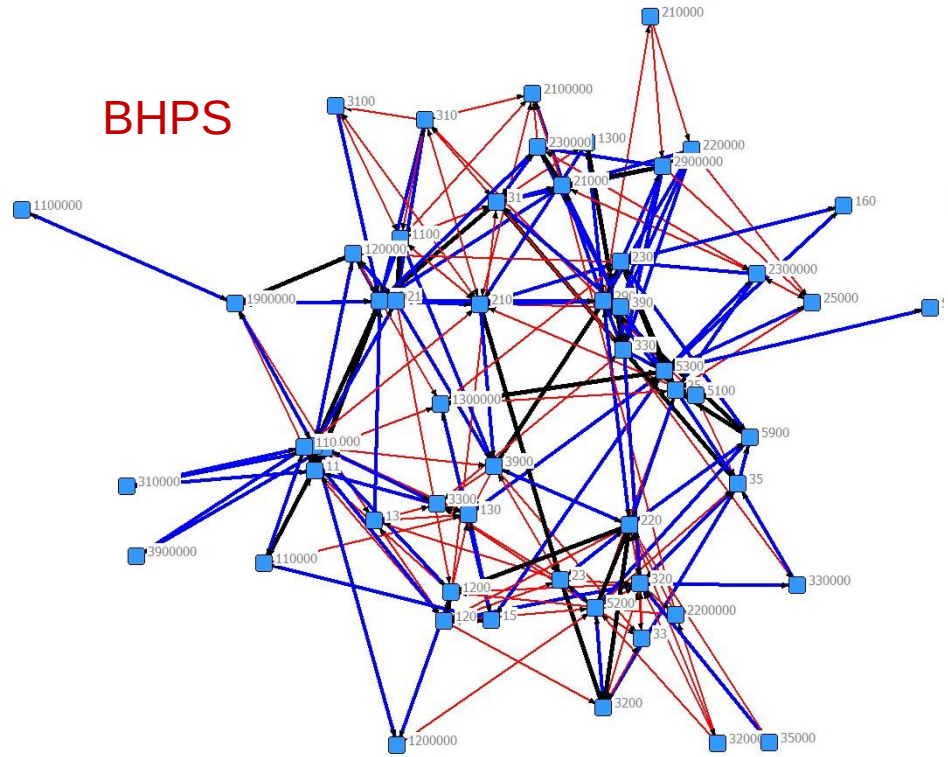
Older cohort generally more homogamous; no trend effects between surveys

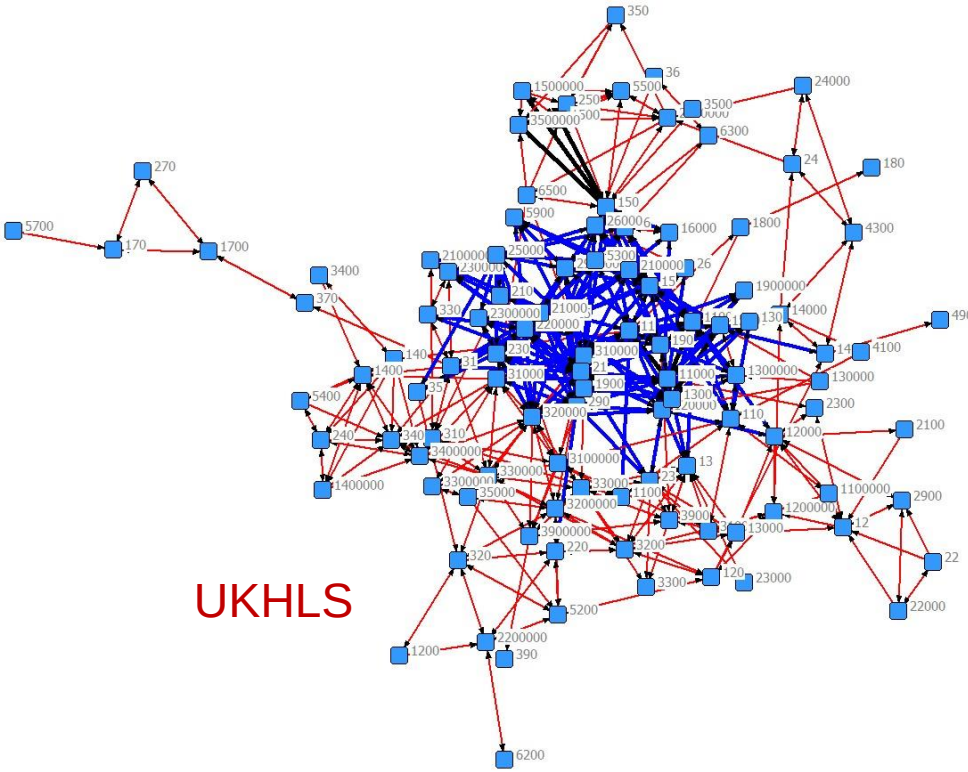
Religion, for older UKHLS, seems an outlier; Trend for views and paper type to become same (assimilation?); Educational similarity for 'generation X'?

Born Sampled	Pre-1940 1991 (older)		1940-1973 1991 (younger)		Pre 1960 2011/12 (older)		Post 1960 2011/12 (younger)	
	Delta	% of BIC decrease	Delta	% of BIC decrease	Delta	% of BIC decrease	Delta	% of BIC decrease
Paper	.350	23.8%	.326	10.6%	.321	30.9%	.300	15.8%
Two-cat.	.314	20.1%	.283	20.3%	.327	24.7%	.295	18.4%
Education	.363	6.6%	.308	23.8%	.346	12.1%	.313	3.8%
Views	.326	42.9%	.297	28.2%	.318	35.9%	.305	14.8%
Religion	.319	57.1%	.295	42.5%	.340	26.5%	.285	54.7%

…more networkds and loglinear models..

- Also tried various permutations for homophily (blue) rather than homogamy (red) (black=both)
  - On homophily, a more even balance between influences (views, religion, education, paper)
  - Education mattered relatively more in BHPS, religion relatively more in UKHLS





Summary on lifestyle patterns

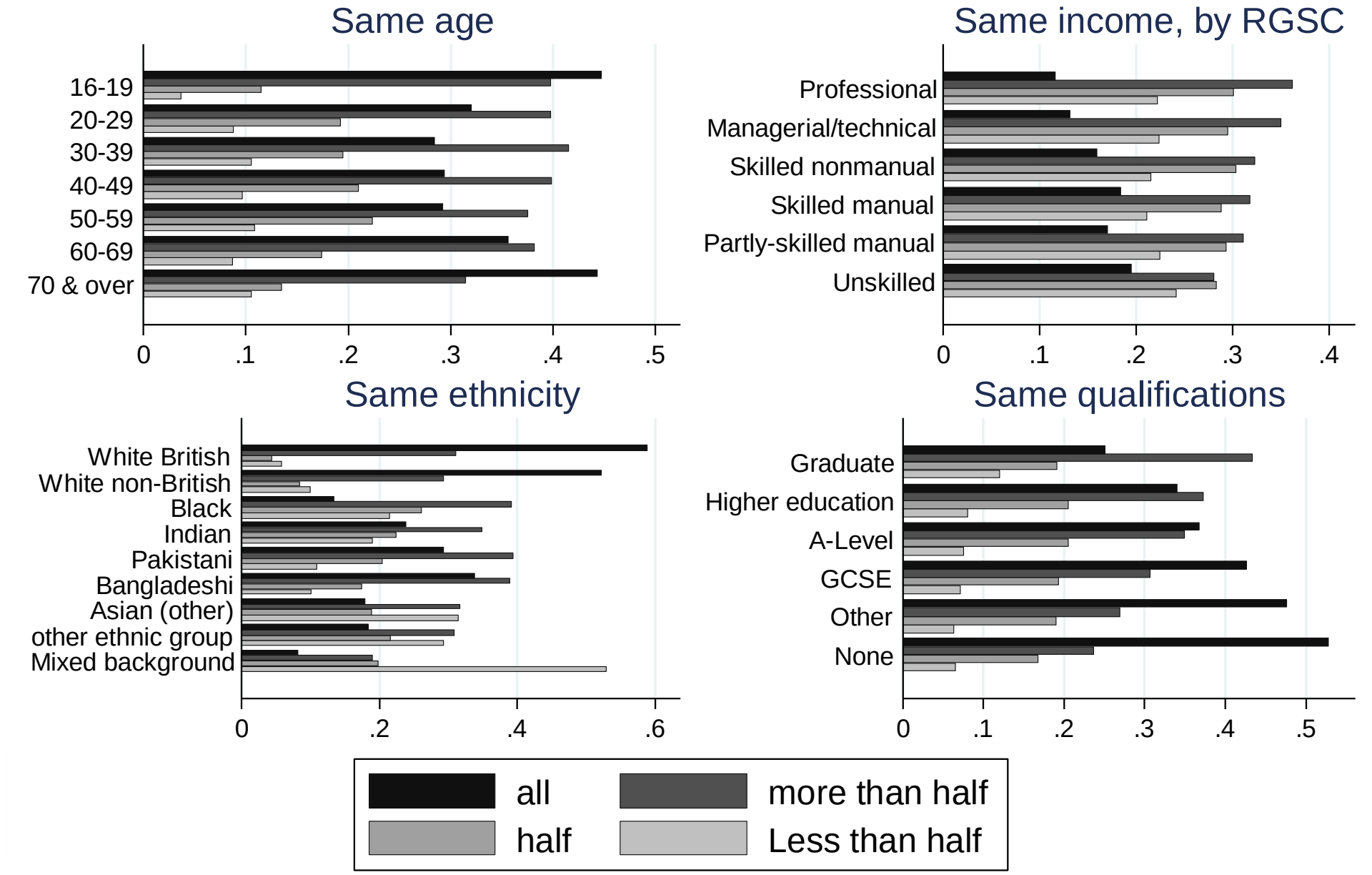
- Strong influence of social structure of inequality in other domains of behaviour (dimensions of interaction are shaped by social stratification)
- Mixed / inconclusive evidence of trend through time
  - Also true for other items that we've measured (e.g. sports participation)
  - Difficulty of distinguishing cohort from ageing effects
- Combinations of identities or 'Catnets' are not especially critical (it's positions themselves that matter most)

(3) Social distance patterns in Britain in socio-economic measures

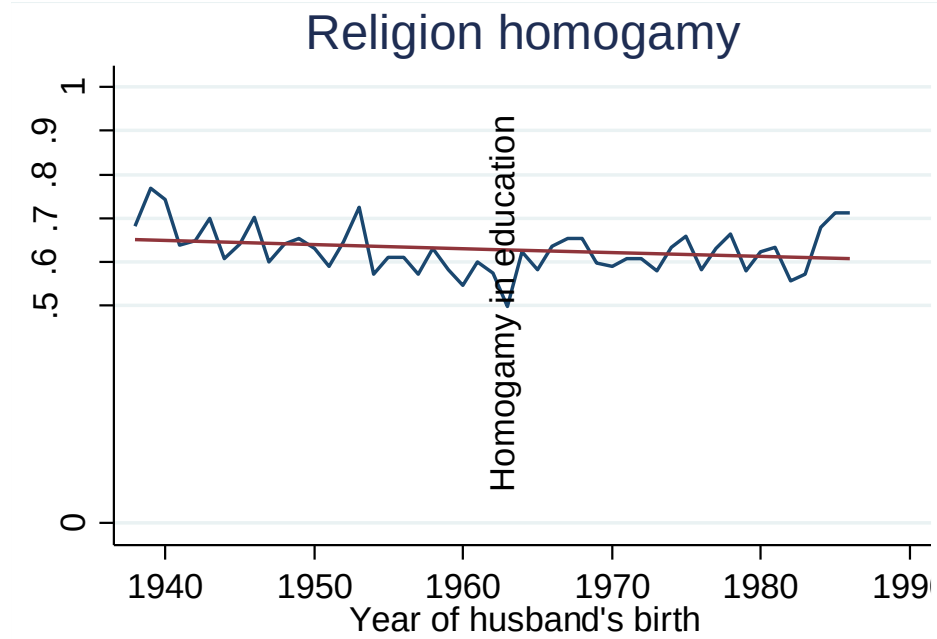
What characterises the main dimensions of social association patterns according to categories of occupations, educational levels, ethnicity and religion, and does this change through time?

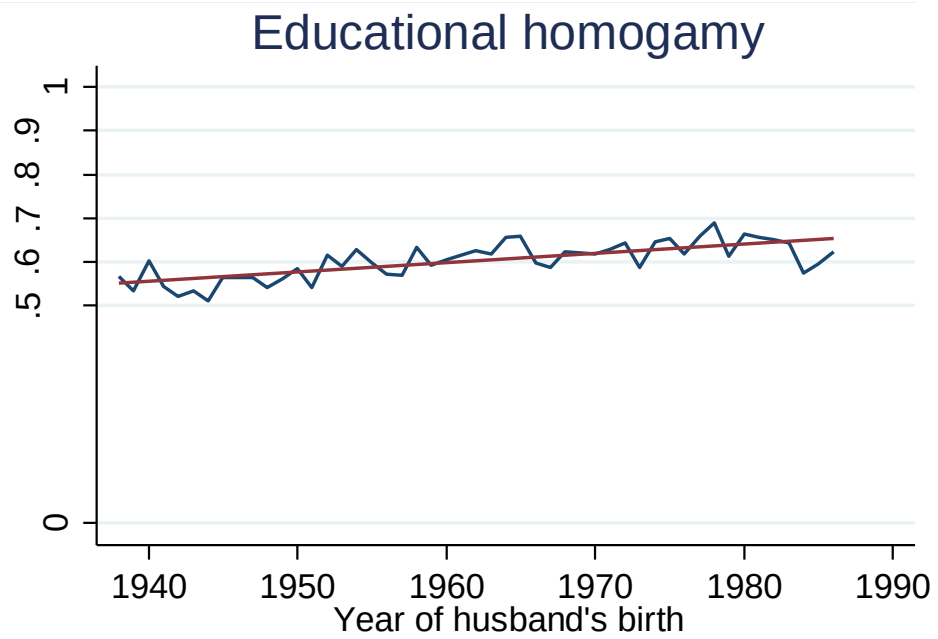
- Use social interaction distance analysis to characterise the own-alter relationship between categories (here use correspondence analysis & SNA) and its change through time
  - Overall strength of the ego-alter relationship ('inertia' / Cramer's V / gap between selected units)
  - Evidence of trends in that structure through time or between countries

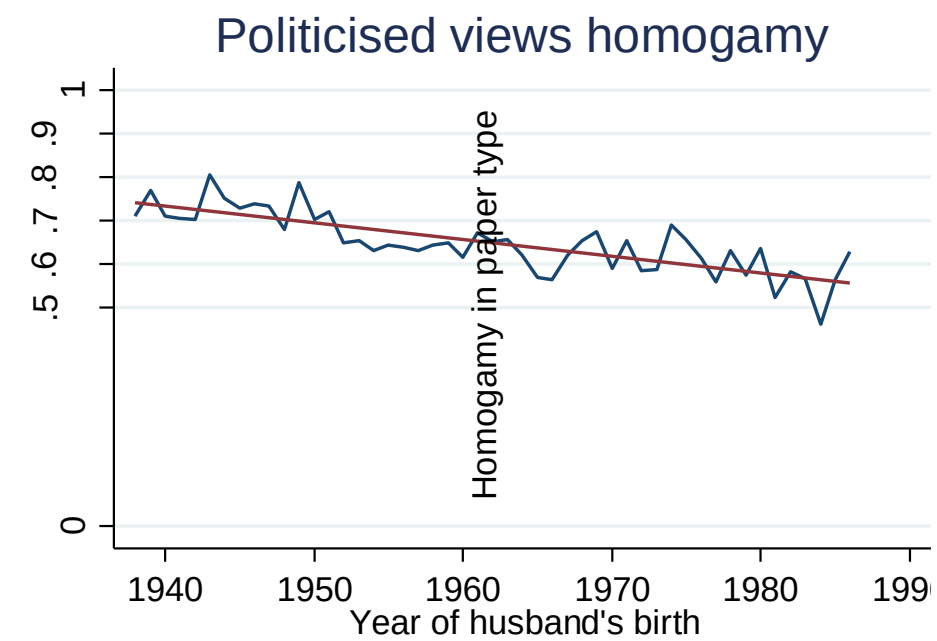
UKHLS, wave 3: Friends with shared characteristic

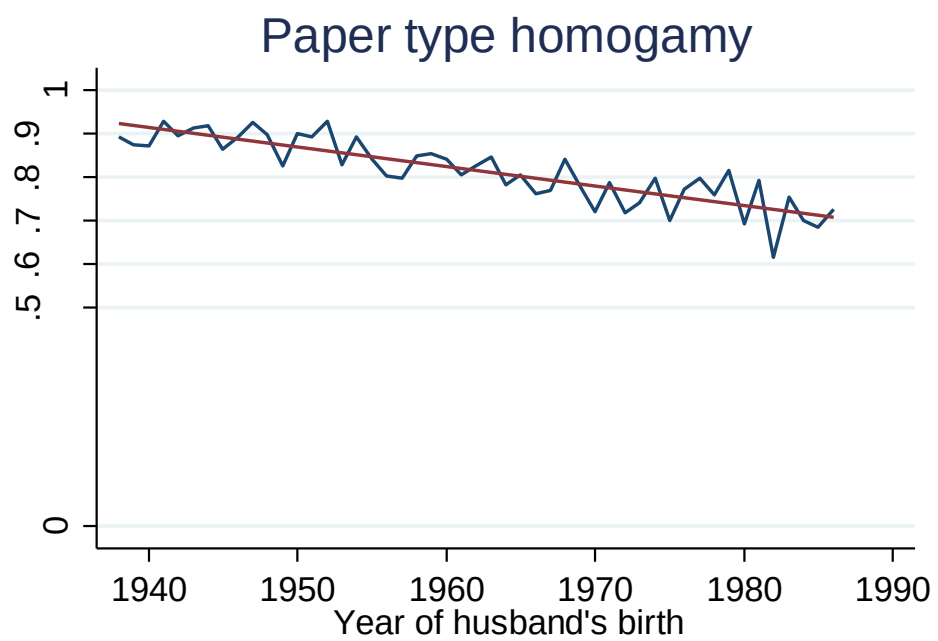


UKHLS homogamy (2011/12) explored as a trend over time









11,801 couples: UKHLS, wave 3

Consequential gaps between social groups?

- Social groups: Occupations; Education; Ethnicity; Religion
- Consequential gaps: Evidence of changes in social distance between groups

- Previous social distance research shows:
  - No major peturbations (so far) in the underlying order defined by social distance (e.g. Prandy and Lambert 2003)
  - Levels of homogamy/homophily generally stable or, for education, marginally increasing (e.g. Brynin et al. 2008)

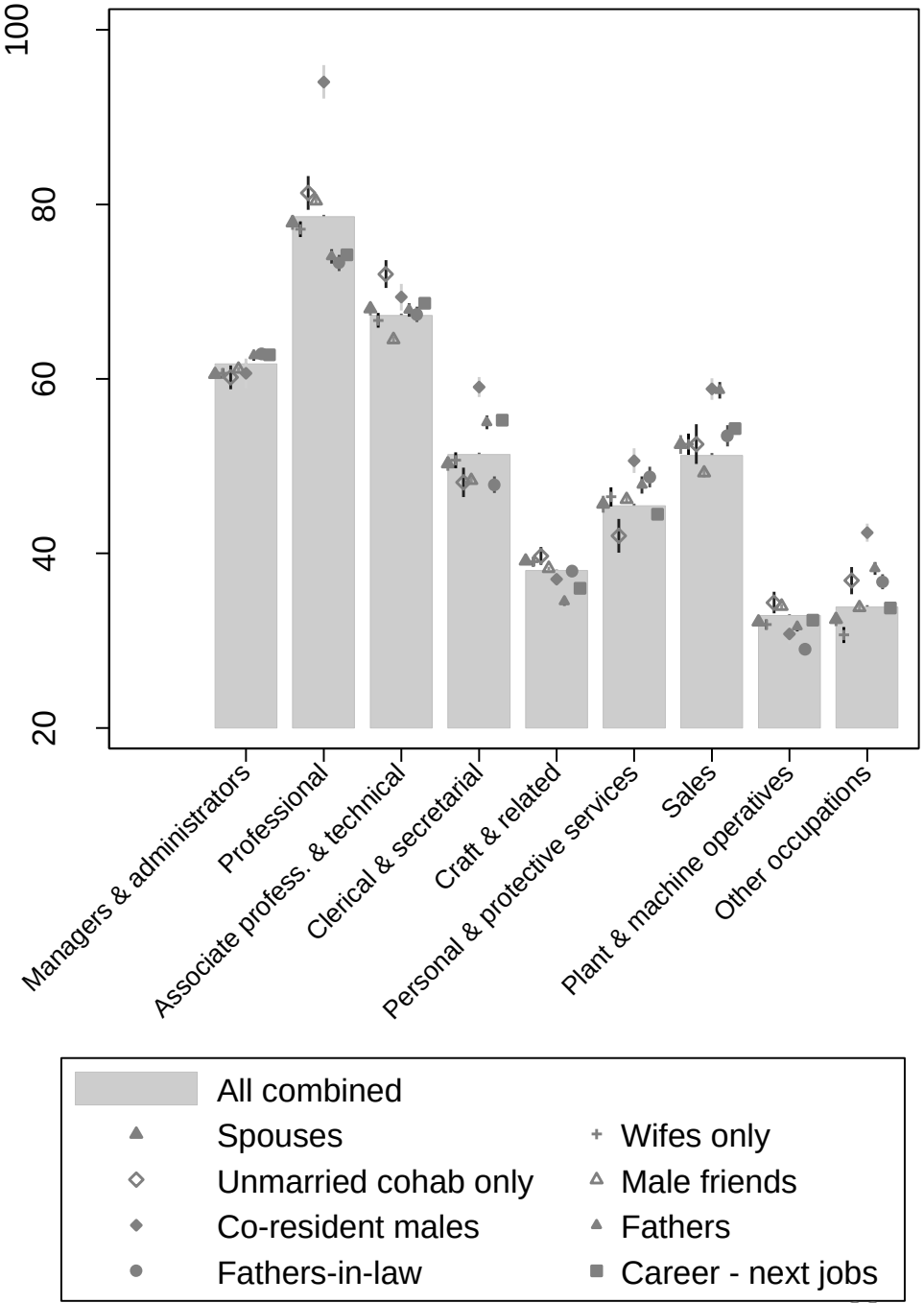
‘Social interaction distance’ (SID) analysis of occupations is now very well charted

(Stewart et al. 1980, Laumann & Guttman 1966, Prandy 1990, Chan 2010, de Luca et al. 2012)
(…and www.camsis.stir.ac.uk)

- First dimension is of stratification (or ‘status’)

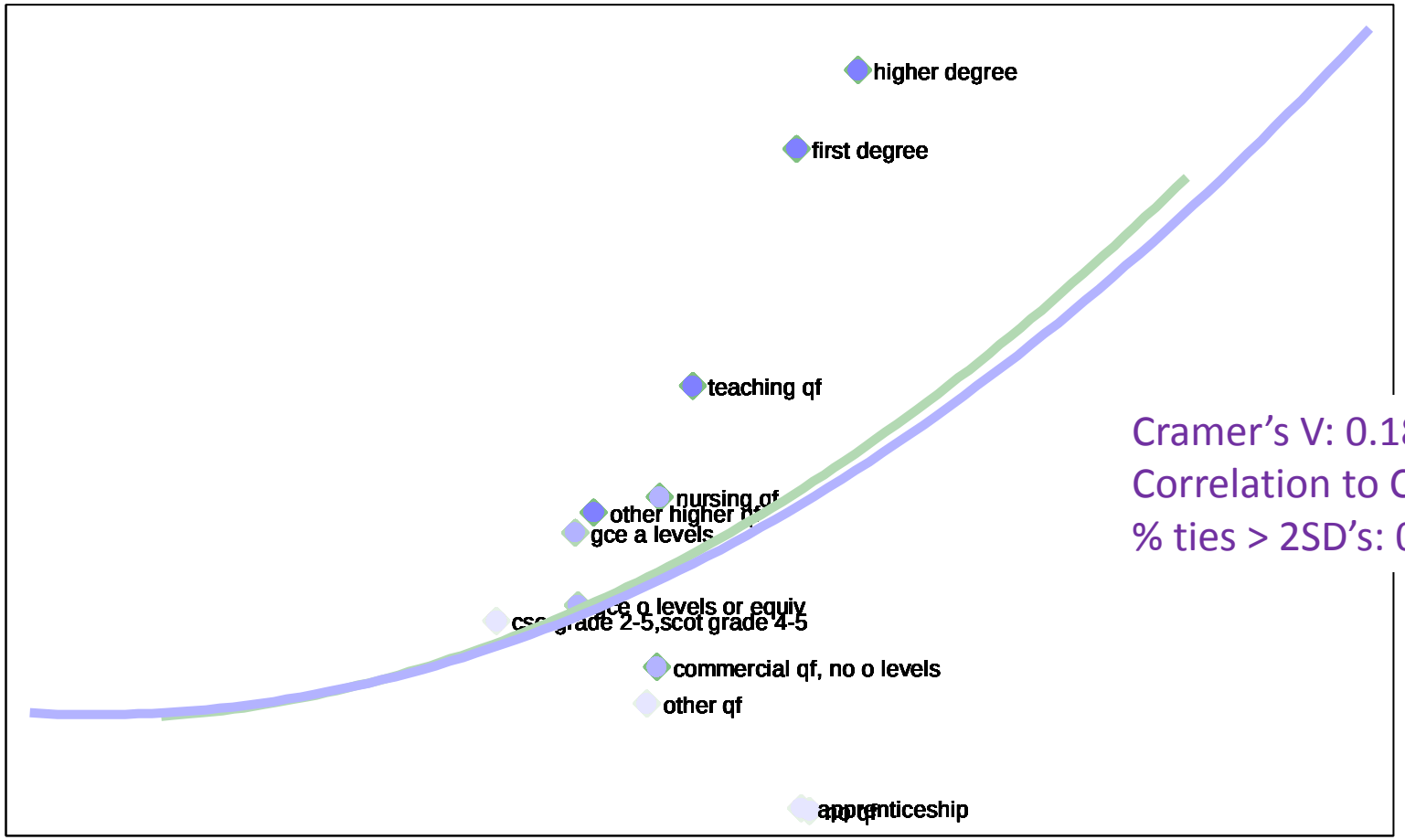
- Other interpretable dimensions (gender segregation, agriculture, public sector)

- Any form of social connection data probably reveals the same structure



Data on males in work and various alters, from BHPS 1991-2000.

For educational qualifications, first dimension of SID is usually stratification; subsidiary dimensions are not so clear, but might reflect age cohort differences in prevalence

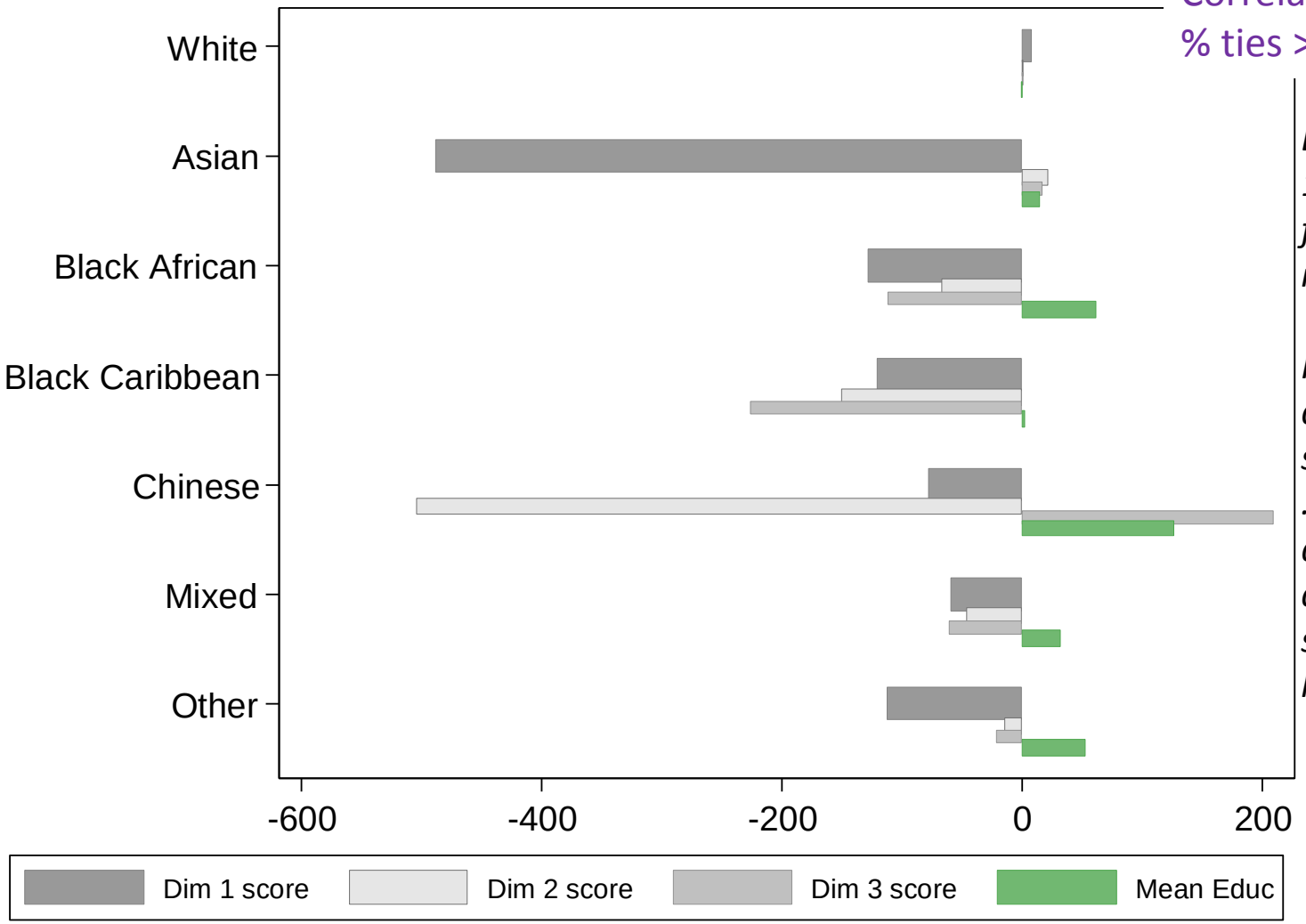


Cramer's V: 0.189
Correlation to CAMSIS: 0.97
% ties > 2SD's: 0.9%

Own ethnicity – Friend's ethnicity

For ethnicity, so far, all of the main dimensions reflect separation of just one or two groups from all others

Cramer's V: 0.334
Correlation to CAMSIS: -0.17
% ties > 2SD's: 1.1%



Lauman 1973:
1st dim. = assimilation, further dims unclear, maybe catholicism

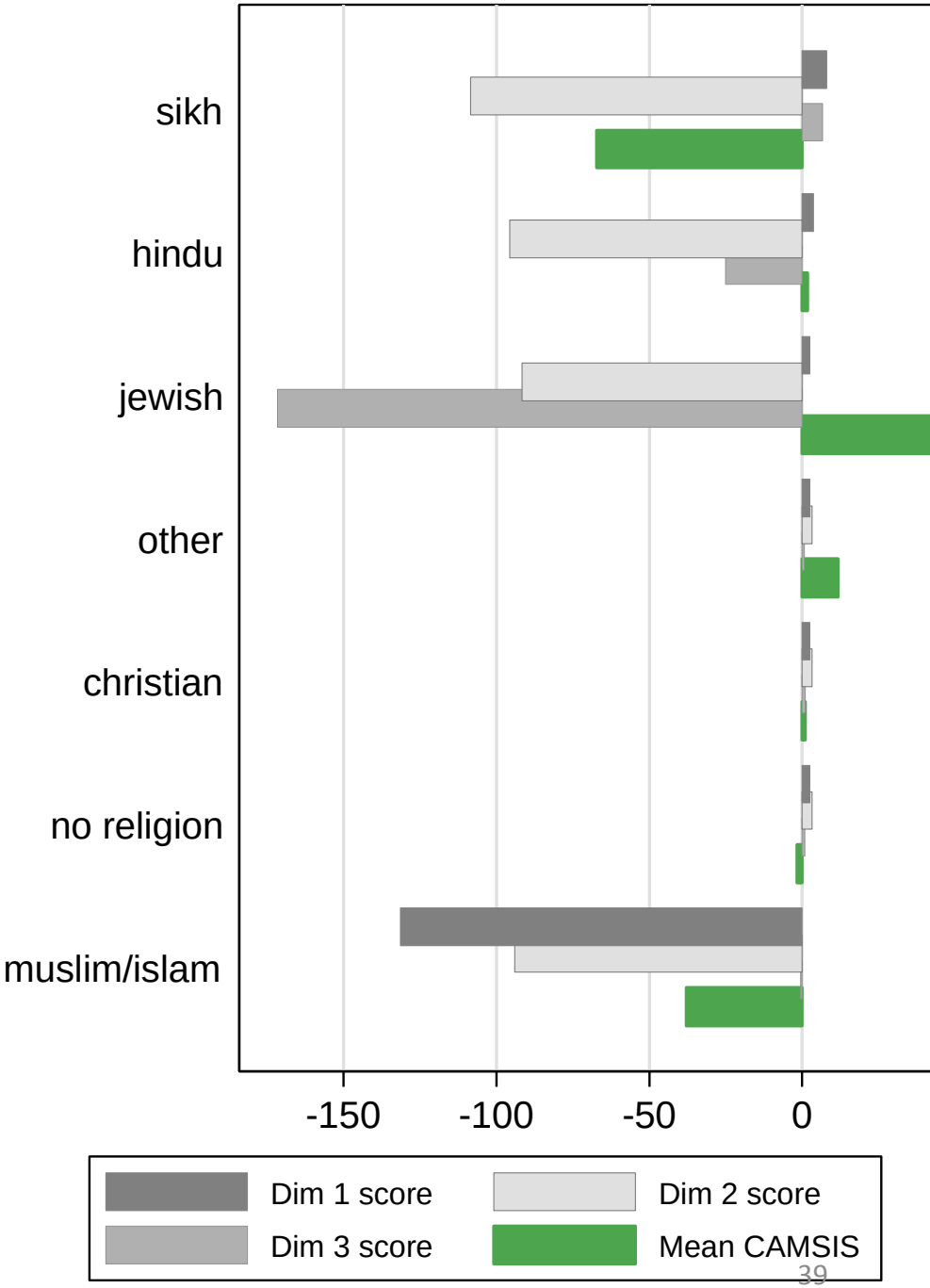
P50: "Our efforts to determine the role of socio-economic status, …, occupational status, and school years completed… in structuring the space have been unsuccessful"

Own religion – Alter's religion

A similar conclusion as ethnicity. Main empirical patterns with groups linked to immigration. Dim 2 might perhaps be 'visibility' but this seems tenuous. Different results when disaggregate 'Christian' category.

{Patterns are similar with and without diagonals}

Cramer's V: 0.729
Correlation to CAMSIS: 0.04
% ties > 2SD's: 0.0%

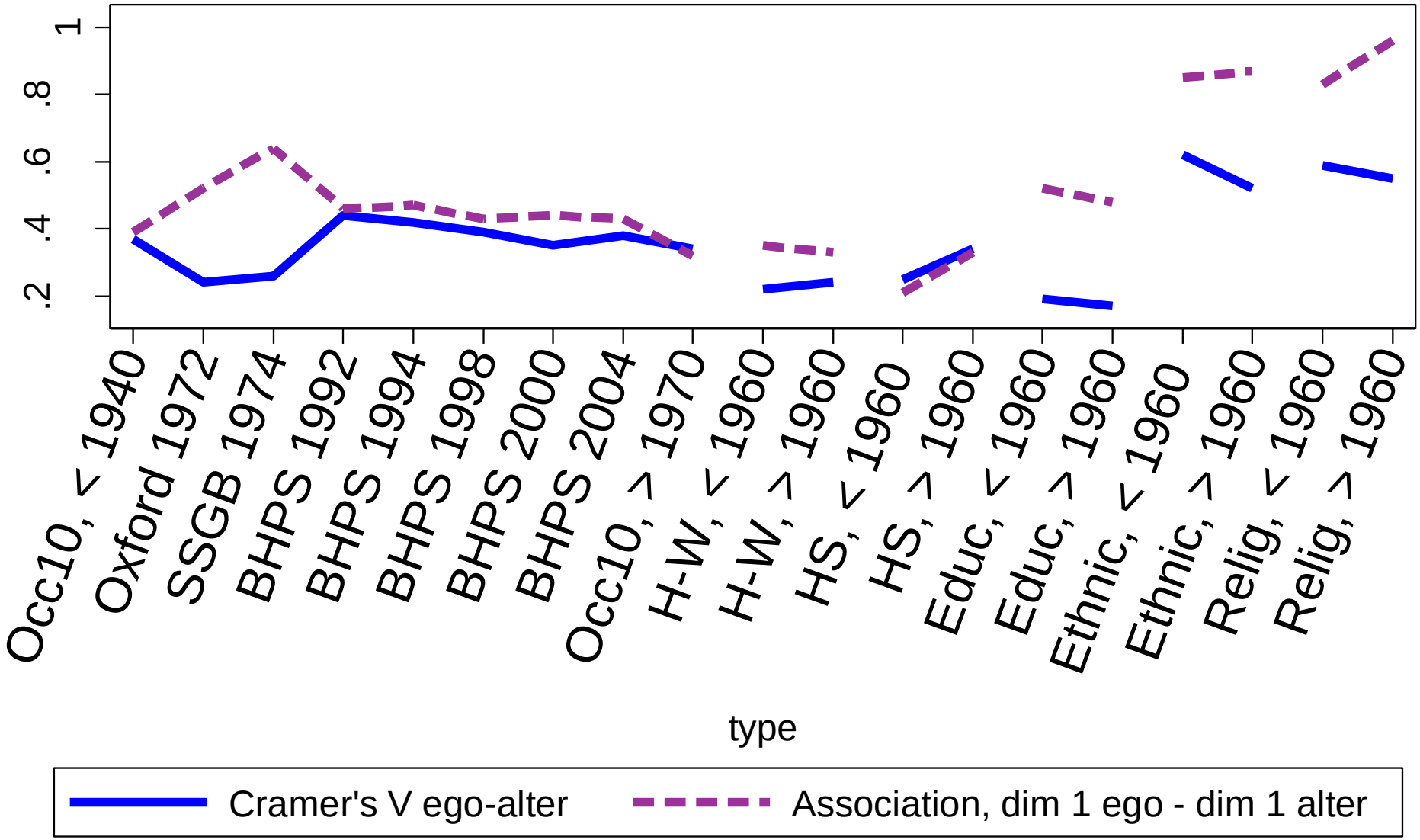


So, is Britain pulling apart…?

Detailed occs	**(1)**	**(2)**	**(3)**		**(1)**	**(2)**	**(3)**
M-M friends (BHPS cols 1 3-dig, 2-3=1dig)				***Other measures**, using H-W data, BHPS*			
BHPS 2004	0.38	0.43	7.5	**Educ, > 1960**	0.17	0.48	9.4
`` 2000	0.35	0.44	7.0	**Educ, < 1960**	0.19	0.52	8.9
`` 1998	0.39	0.43	9.3				
`` 1994	0.42	0.47	7.6	**Ethnic, > 1960**	0.52	0.87	0.0
`` 1992	0.44	0.46	6.1	**Ethnic, < 1960**	0.62	0.85	0.1
SSGB 1974	0.26	0.64	2.9				
Oxford 1972	0.24	0.52	5.6	**Relig, > 1960**	0.55	0.96	0.0
BHPS only				**Relig, < 1960**	0.59	0.83	0.1
H-W, > 1960	0.24	0.33	7.3				
H-W, < 1960	0.22	0.35	9.6	**Occ10, > 1970**	0.34	0.32	8.2
HS, > 1960	0.34	0.33	9.1	**Occ10, < 1940**	0.37	0.39	7.1
HS, < 1960	0.25	0.21	11.5				

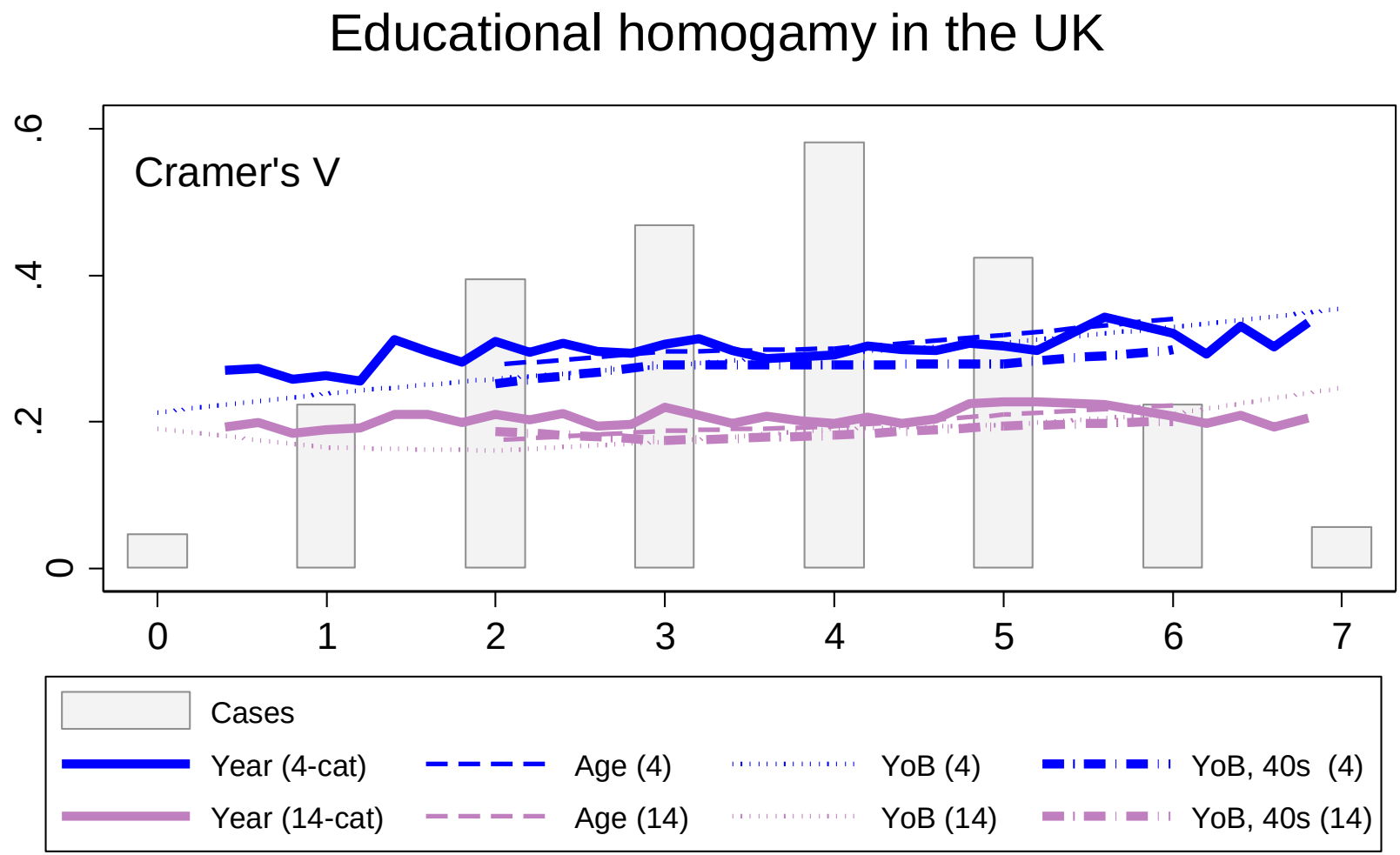
(1) Cramer's V for ego-alter; (2) Ego-Alt dim1 correlation; (3) % ego-alt > 2SD different in dim 1.
< 1960 refers to egos born up to 1960; > 1960 refers to egos born after 1960

Trends in UK in social distance



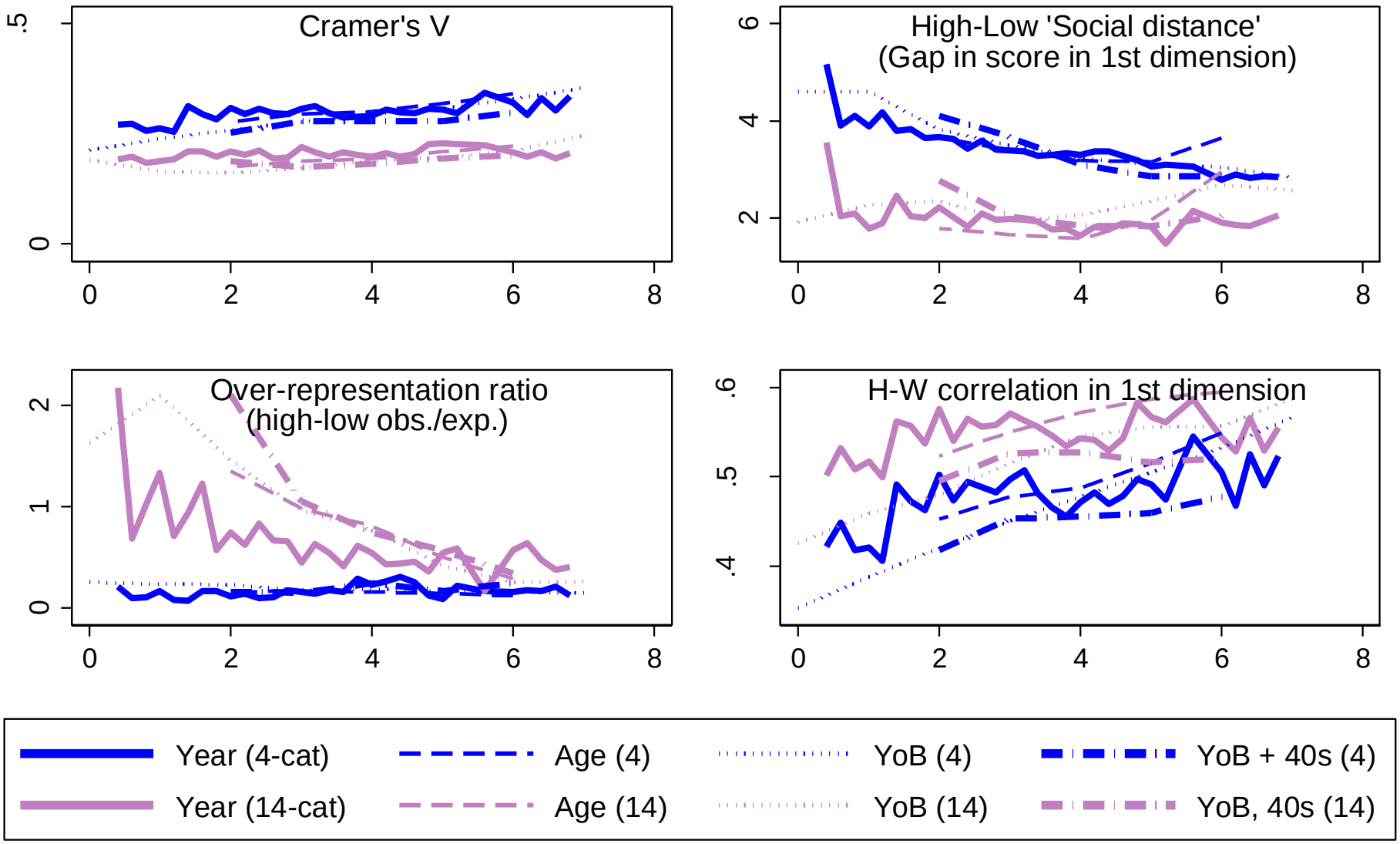
Analysis based on ego-alter associations disaggregated by year of survey or birth year.
Points refer to social distance between occupations unless otherwise indicated.

Difficulties of comparison regarding category definitions and trend criteria…



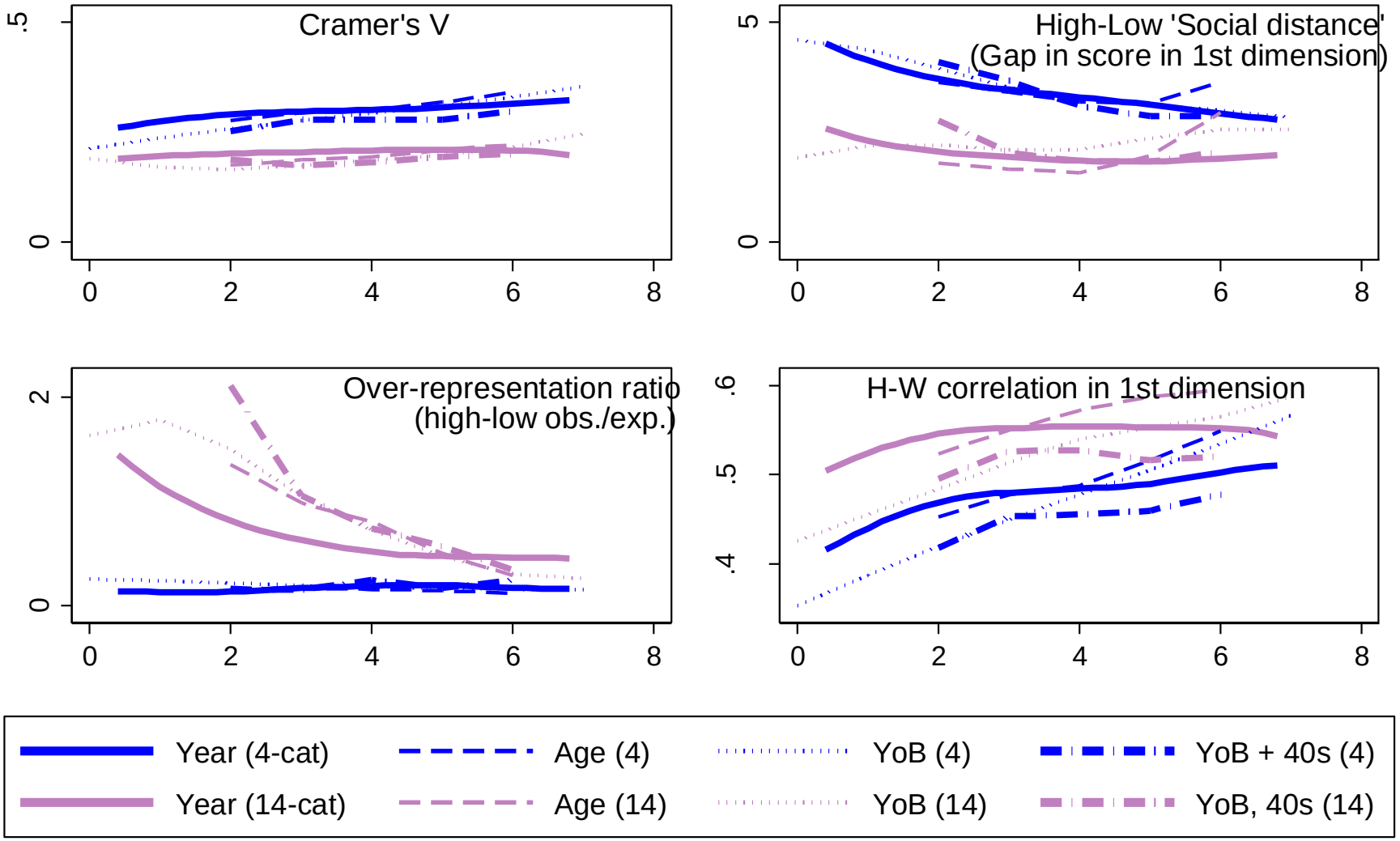
Source: Pooled GHS time series, 1974-2004. Horizontal axis refers to different time metrics by line. Metrics refer to: Years since 1970/5; age in decades-1; birth cohort (year of birth since 1900). Lines show statisics when education is coded into 4 or 14-category versions, and for different measures of time (year, age, year of birth, and year of birth for adults in their 40s).

Educational homogamy in the UK



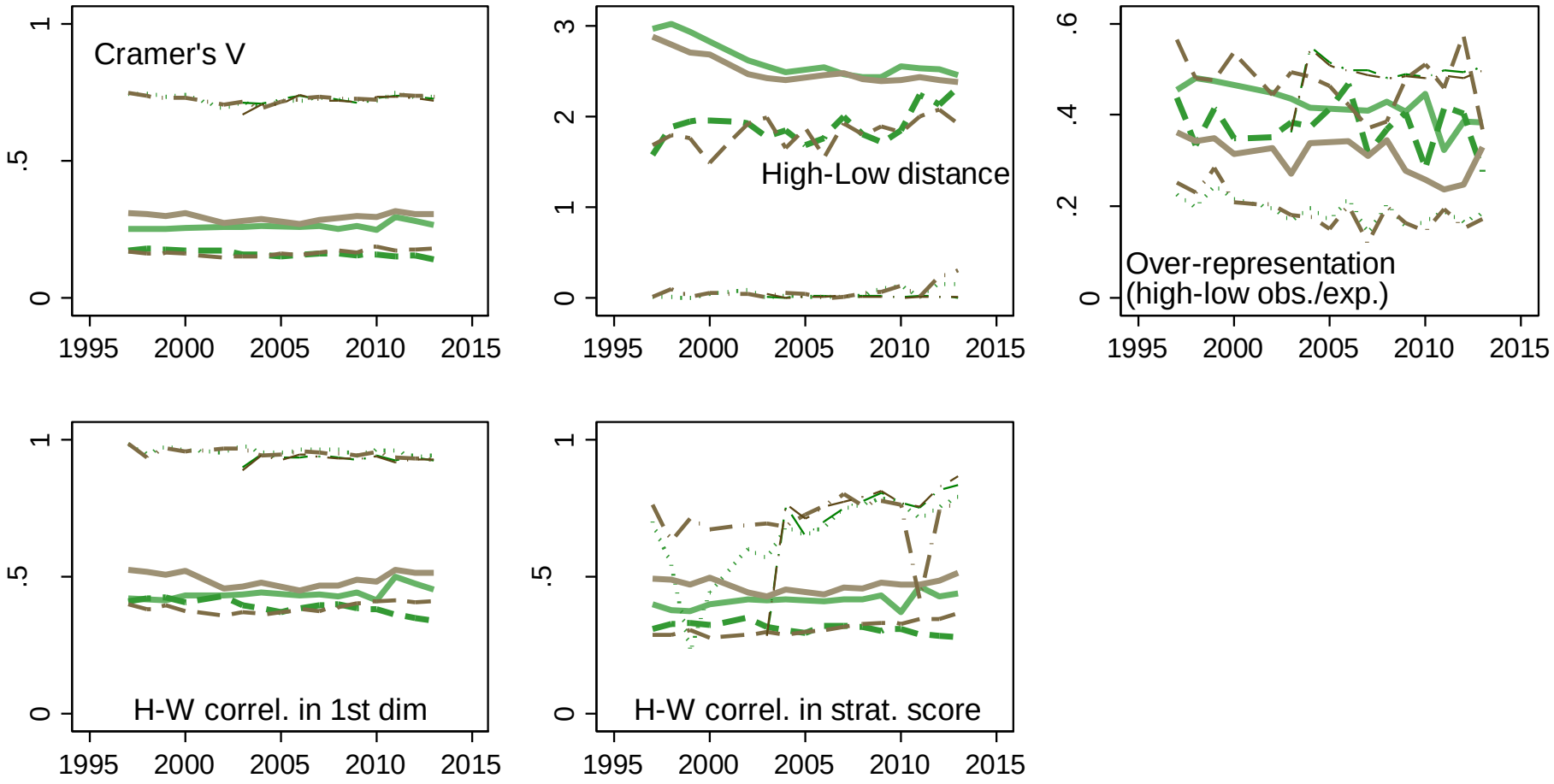
Source: Pooled GHS time series, 1974-2004. Horizontal axis refers to different time metrics by line. Metrics refer to: Years since 1970/5; age in decades-1; birth cohort (year of birth since 1900). Lines show statisics when education is coded into 4 or 14-category versions, and for different measures of time (year, age, year of birth, and year of birth for adults in their 40s).

Educational homogamy in the UK



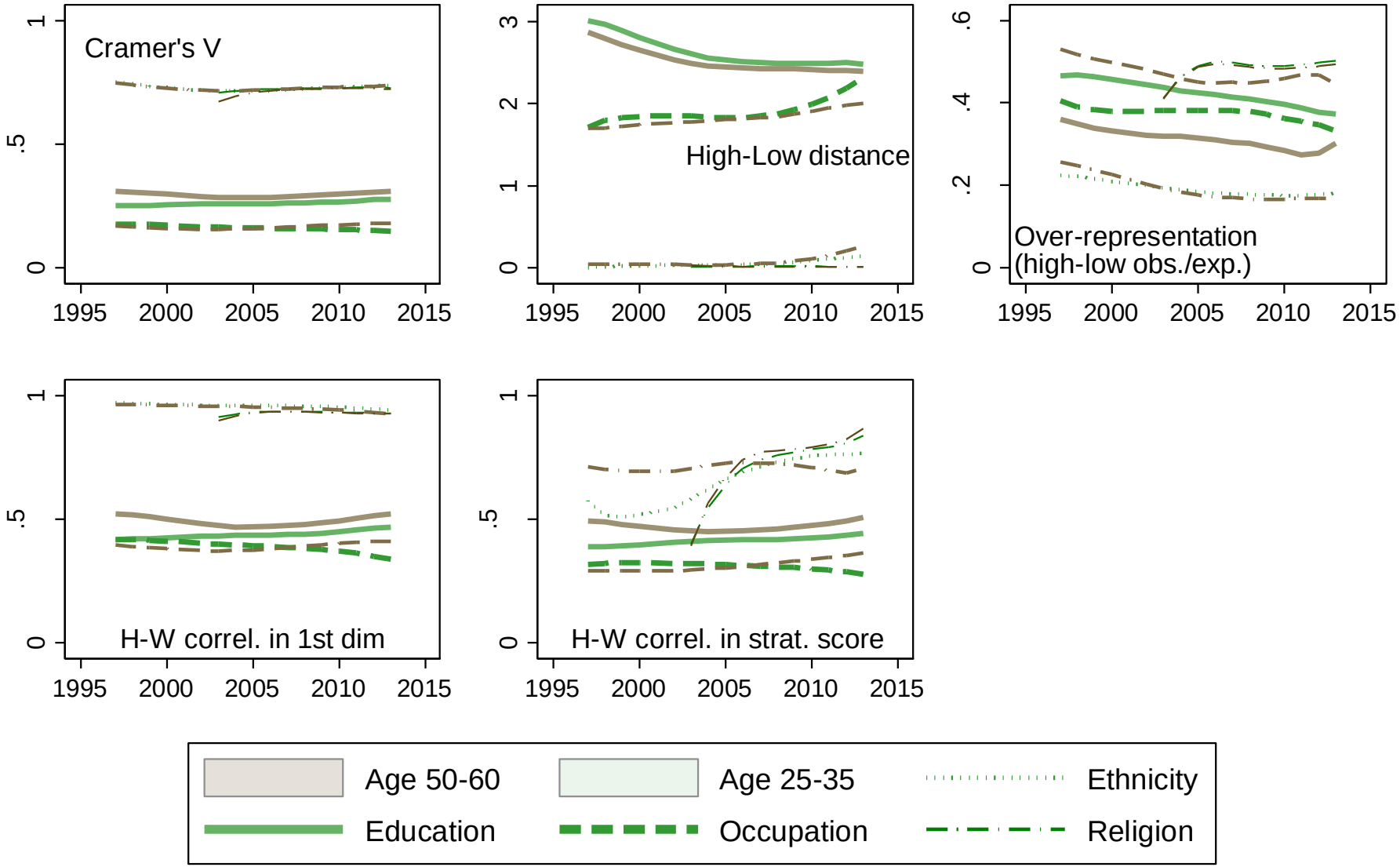
Source: Pooled GHS time series, 1974-2004. Horizontal axis refers to different time metrics by line. Metrics refer to: Years since 1970/5; age in decades-1; birth cohort (year of birth since 1900). Lines show statisics when education is coded into 4 or 14-category versions, and for different measures of time (year, age, year of birth, and year of birth for adults in their 40s). Lines smoothed with local linear smoothing (lowess)

Homogamy in the UK



Source: Pooled LFS, 1997-2013, cohabiting couples. Horizontal axis refers to time point of observation. Colours indicate age cohort within time period (age of husband). N ~= 5k couples per time period.

Homogamy in the UK



Source: Pooled LFS, 1997-2013, cohabiting couples. Horizontal axis refers to time point of observation. 'Lowess' lines plotted (local linear smooth). Colours indicate age cohort within time period (age of husband). N ~= 5k couples per time period.

..Here are some regressions on trends, using microdata, that I'm not yet sure about..

GHS, 1972-2004

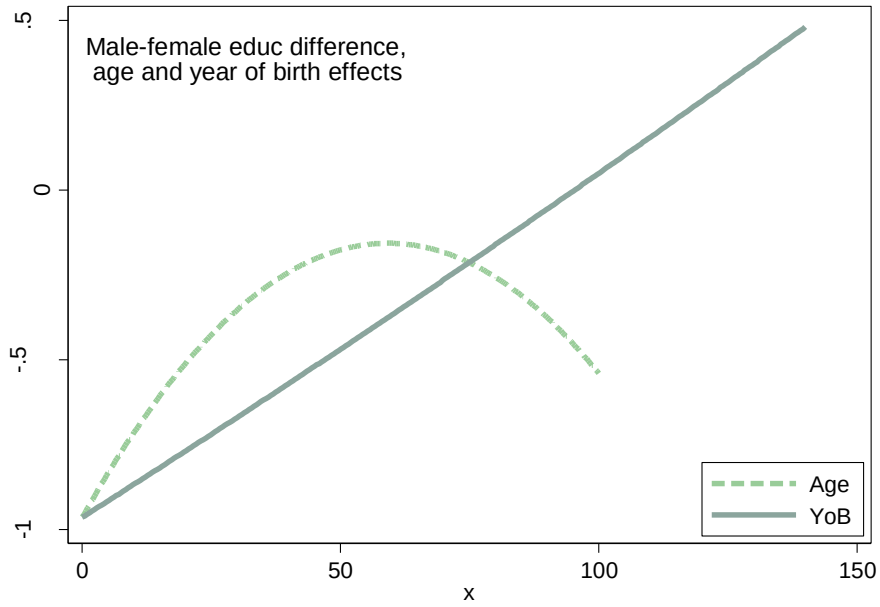
Variable	mfdif1	mfdif2	mfdif3
m_age	.017555***		.027294***
m_age2	-.000231***		-.000231***
yob		.013648***	.009679***
yob2		-.000052***	4.6e-06
_cons	.18295***	-.22571***	-.96405***
N	169523	169523	169523
ll	-133442	-131857	-130700
r2	.017612	.035805	.048883

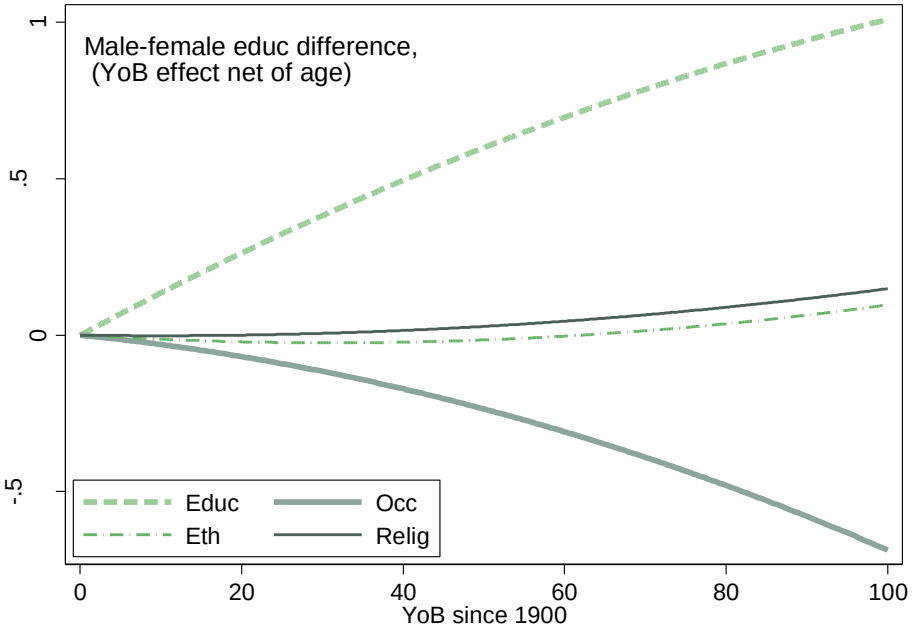
legend: * p<0.05; ** p<0.01; *** p<0.001

LFS, 1997-2013

Variable	educ	occ	eth	relig
h_age	.020131***	-.009385***	.001767***	.000991
h_age2	-.000129***	.00005***	-.000012***	-5.4e-06
yob	.01388***	-.002575***	-.001577***	-.000368
yob2	-.000038***	-.000043***	.000025***	.000019*
_cons	-.87408***	.98797***	-.034627***	-.037084
N	352155	359266	466001	275253
ll	-288846	-318484	-105485	-110744
r2	.008559	.009025	.001393	.003132

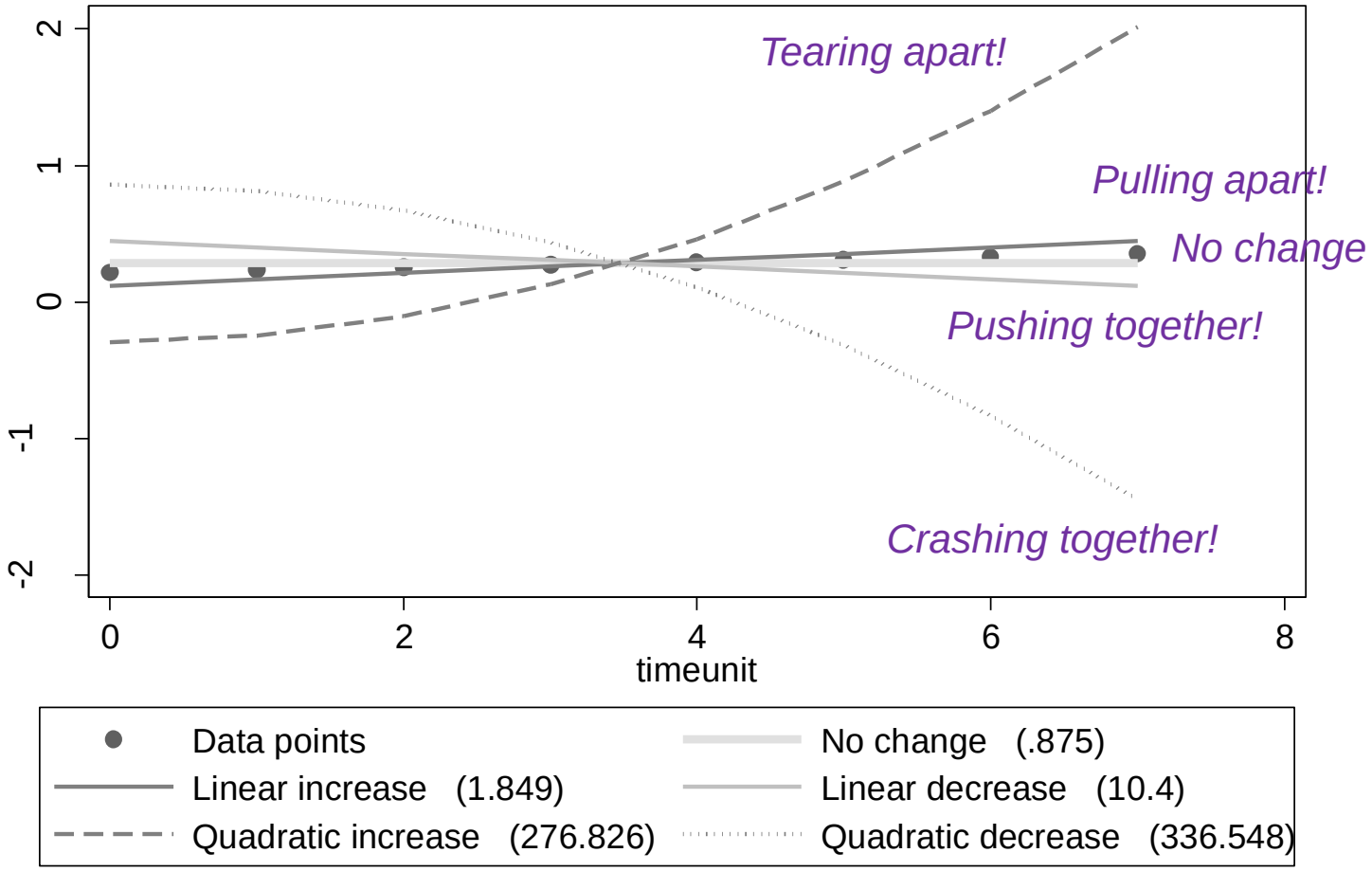
legend: * p<0.05; ** p<0.01; *** p<0.001





- It might be more consistent to compare patterns against an anticipated (a priori) trend line?

➢ Either flatline, or linear change by 1 sd each decade, or quadratic by (sd/dec^2)…



Statistics are a mean value for the squared error expressed as a proportion of the variance

Cramer's V trend with time for education, GHS.

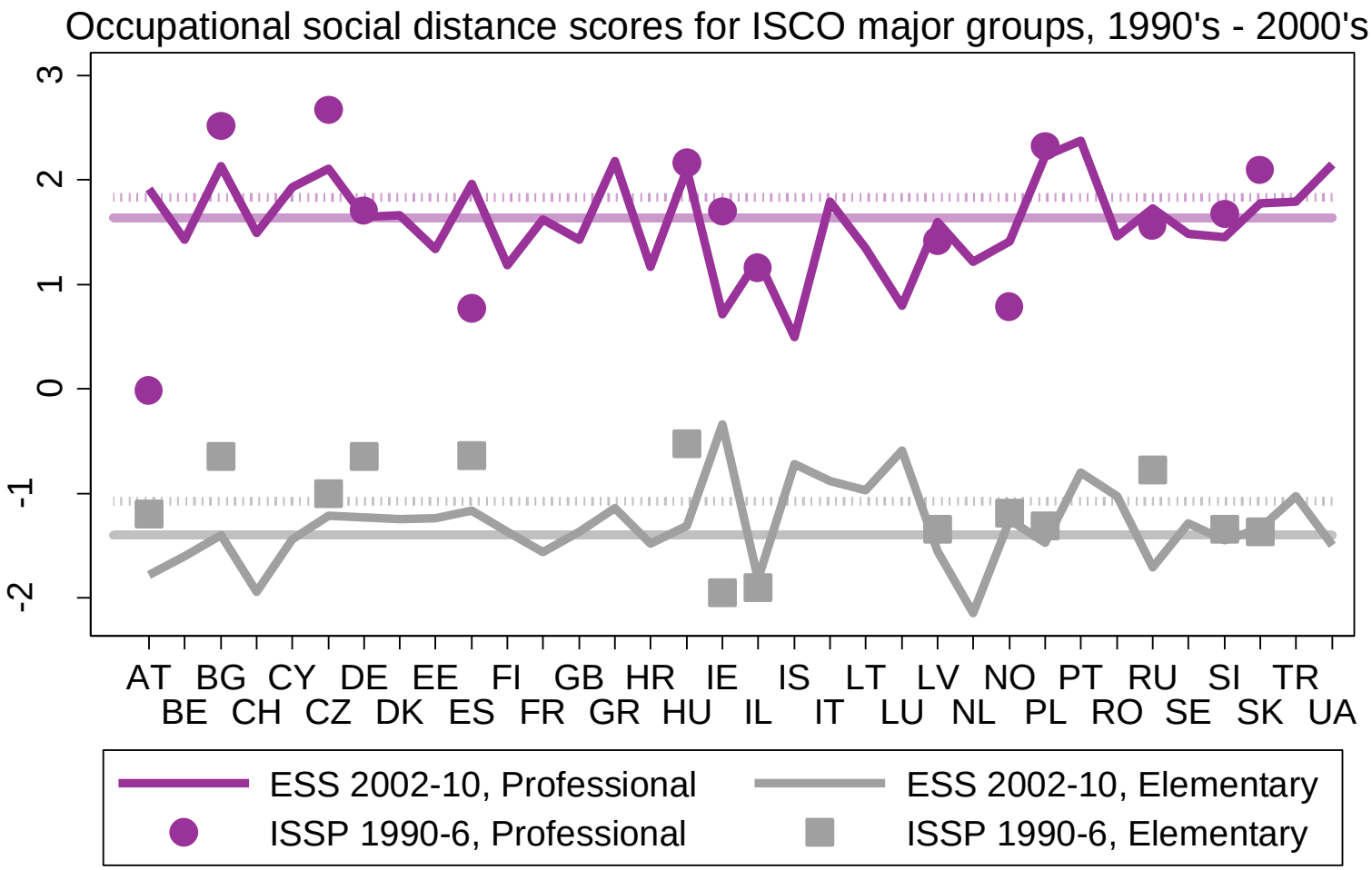
The observed patterns fit somewhat with linear increase but of the options, no change is best

Unconstrained, a more moderate linear increase fits best

Social distance trends in Britain

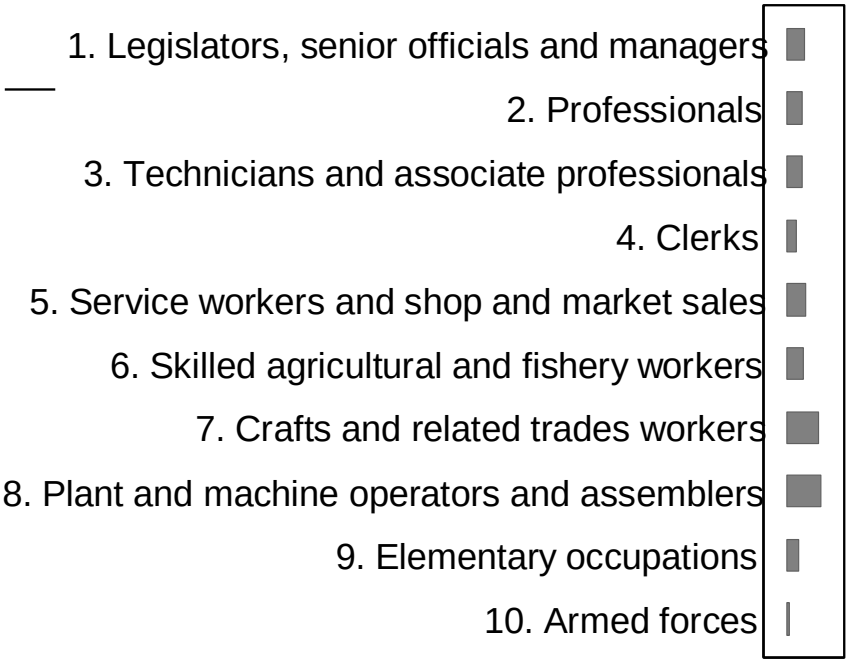
GHS data, 72-04	Type of Stat.	Best trend line
Educ (4) by yob	Cramer's V	**No change (+)**
``	HW Dim 1 cor.	**No change (+)**
``	High-Low dist.	**No change (--)**
``	H-L occurrence	**No change (-)**
	H-W strat cor.	
Educ (4) by yob	Cramer's V	**Pulling apart (+)**
for age 40-50	HW Dim 1 cor.	**Pulling apart (+)**
``	High-Low dist.	**Pulling together (-)**
``	H-L occurrence	**No change**
	H-W strat cor.	
Educ(14) by yob	Cramer's V	**No change (++)**
``	HW Dim 1 cor.	**No change (++)**
``	High-Low dist.	**No change**
``	H-L occurrence	**No change (-)**
	H-W strat cor.	

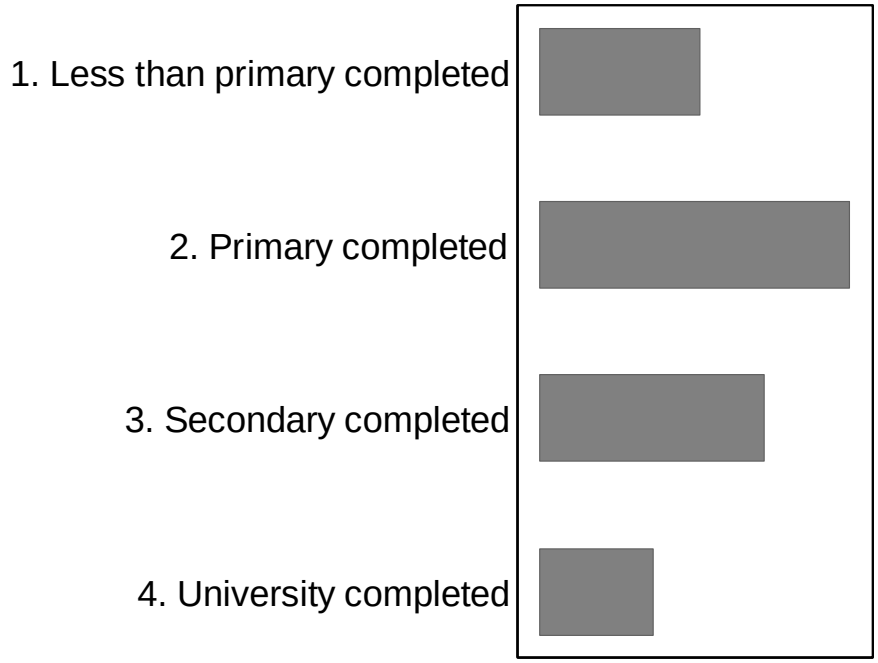
What about in comparison to other countries?

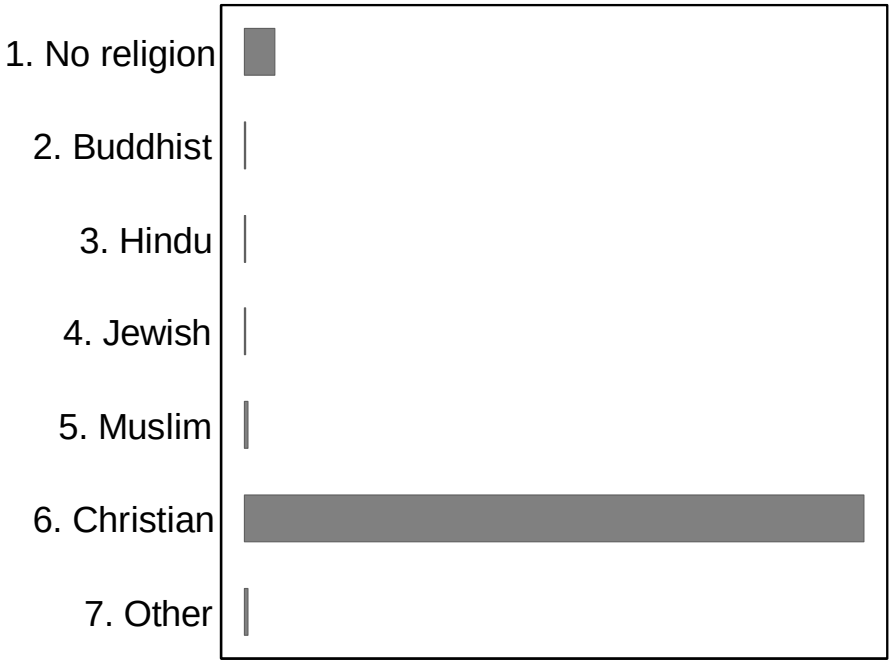


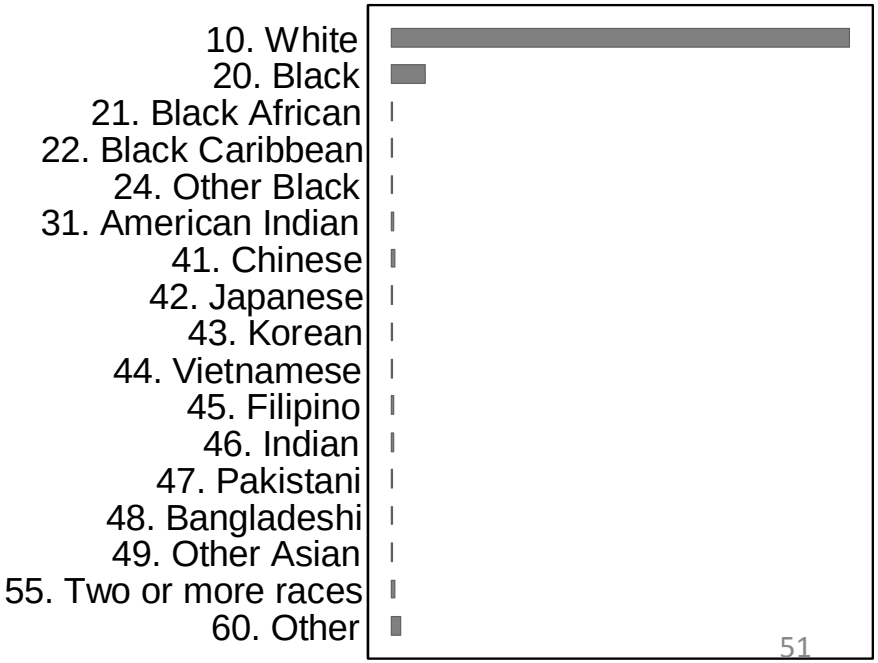
Data from ISSP, 1990-1996, and ESS 2002-2010. Husband-Wife occupations.
Horizontal lines show cross-country means (continuous for 2002-10; dashed for 1990-6)

IPUMS-I: Categorical measures used

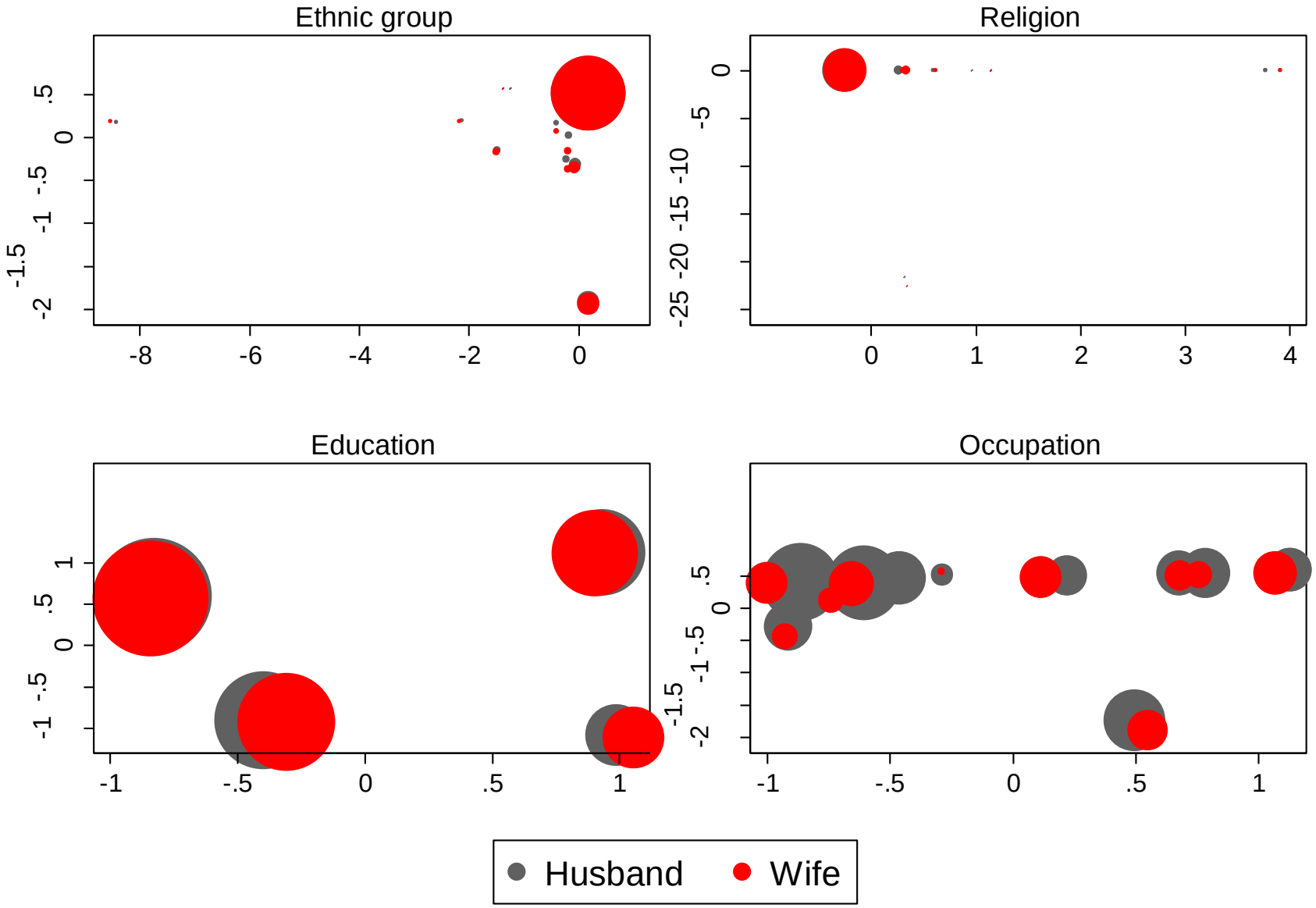




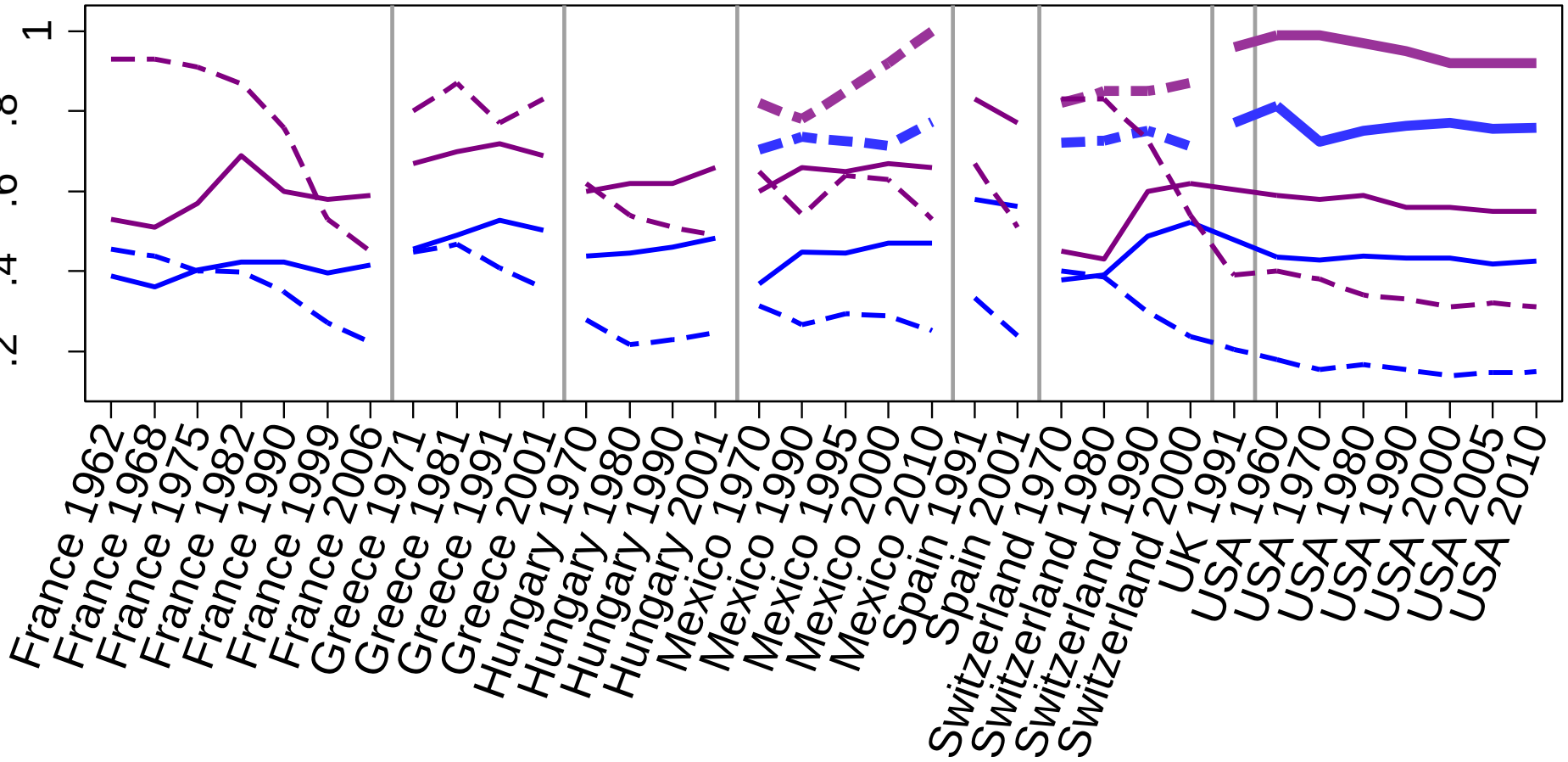




Global orders of social interaction distance…



International trends in social distance



Analysis based on husband-wife associations from IPUMS-I data.
Blue lines = Ego-alter Cramer's V. Purple lines = Ego-Alt dim1 association

Summary on social change in social distance

…Britain isn't pulling apart, because change here and there isn't the same as social upheaval…

- Interesting profiles of social change from studying social distance using both socioeconomic and lifestyle measures
- In terms of social distance, there are examples of 'pulling apart', and of no change, and of 'pushing together'!
  - *But there definitely isn't evidence of 'tearing apart'*
  - Compared to social theories, narratives of social change are unsupported by evidence, but this is because the theories tend to over-exaggerate change (modernisation theory, and models of stability, are safer here)
- Methodological issues
  - lack of long term and easily compared data – even today
  - Choice of statistics and inference criteria

…Thanks for your attention…!

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- 11 University & left
- 12 & left/centre
- 13 & centre
- 14 & right/centre
- 15 & right
- 16 & right/left
- 21 Non-university & left
- 22 & left/centre
- 23 & centre
- 24 & right/centre
- 25 & right
- 26 & right/left
- 31 No qualification & left
- 32 & left/centre
- 33 & centre
- 34 & right/centre
- 35 & right
- 36 & right/left

- 110 University & Catholic
- 120 & Protestant
- 130 & Anglican
- 140 & Islam
- 150 & Hindu
- 160 & Jewish
- 170 & Sikh
- 180 & Buddhist
- 190 & no religion
- 210 Non-univeristy & Catholic
- 220 & Protestant
- 230 & Anglican
- 240 & Islam
- 250 & Hindu
- 260 & Jewish
- 270 & Sikh
- 280 & Buddhist
- 290 & no religion
- 310 No qualifaction & Catholic
- 320 & Protestant
- 330 & Anglican
- 340 & Islam
- 350 & Hindu
- 360 & Jewish
- 370 & Sikh
- 380 & Buddhist
- 390 & no religion

- 1100 All left & Catholic
- 1200 & Protestant
- 1300 & Anglican
- 1400 & Islam
- 1500 & Hindu
- 1600 &Jewish
- 1700 & Sikh
- 1800 & Buddhist
- 1900 & no religion
- 2100 Left/centre & Catholic
- 2200 & Protestant
- 2300 & Anglican
- 2400 & Islam
- 2500 & Hindu
- 2600 & Jewish
- 2700 & Sikh
- 2800 & Buddhist
- 2900 & no religion
- 3100 Centre & Catholic
- 3200 & Protestant
- 3300 & Anglican
- 3400 & Islam
- 3500 & Hindu
- 3600 & Jewish
- 3700 & Sikh
- 3800 & Buddhist
- 3900 & no religion
- 4100 Right/centre & Catholic
- 4200 & Protestant
- 4300 & Anglican
- 4400 & Islam
- 4500 & Hindu
- 4600 & Jewish
- 4700 & Sikh
- 4800 & Buddhist
- 4900 & no religion
- 5100 Right & Catholic
- 5200 & Protestant
- 5300 & Anglican
- 5400 & Islam
- 5500 & Hindu
- 5600 & Jewish
- 5700 & Sikh
- 5800 & Buddhist
- 5900 & no religion

- 6100 Right/left & Catholic
- 6200 & Protestant
- 6300 & Anglican
- 6400 & Islam
- 6500 & Hindu
- 6600 & Jewish
- 6700 & Sikh
- 6800 & Buddhist
- 6900 & no religion

- 11000 Broadsheet & left
- 12000 & left/centre
- 13000 & centre
- 14000 & right/centre
- 15000 & right
- 16000 & right/left
- 21000 Tabloid & left
- 22000 & left/centre
- 23000 & centre
- 24000 & right/centre
- 25000 & right
- 26000 & right/left
- 321000 Regional paper & left
- 32000 & left/centre
- 33000 & centre
- 34000 & right/centre
- 35000 & right
- 36000 & right/left

- 110000 Broadsheet & university
- 120000 & non-university
- 130000 & no qualification
- 210000 Tabloid & university
- 220000 & non-university
- 230000 & no qualification
- 310000 Regional paper & university
- 320000 & non-university
- 330000 & no qualification

- 1100000 Broadsheet & Catholic
- 1200000 & Protestant
- 1300000 & Anglican
- 1400000 & Islam
- 1500000 & Hindu
- 1600000 & Jewish
- 1700000 & Sikh
- 1800000 & Buddhist
- 1900000 & no religion
- 2100000 Tabloid & Catholic
- 2200000 & Protestant
- 2300000 & Anglican
- 2400000 & Islam
- 2500000 & Hindu
- 2600000 & Jewish
- 2700000 & Sikh
- 2800000 & Buddhist
- 2900000 & no religion
- 3100000 Regional paper & Catholic
- 3200000 & Protestant
- 3300000 & Anglican
- 3400000 & Islam
- 3500000 & Hindu
- 3600000 & Jewish
- 3700000 & Sikh
- 3800000 & Buddhist
- 3900000 & no religion

Appendix: coding frame for the categories used in UKHLS analysis, section 2