Ethnic intermarriage and homogamy in Russia

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- 1. Ethnic heterogeneity in Russia
- 2. Ethnic intermarriage and the study of cultural distance / attitudes
- 3. Data and methods
- 4. Findings

Russia's ethnic minorities (2010 census)

- Ethnic Russians: 81% (111 m)
- Tatars: 3.7% (5.3 m)
- Ukrainians: 1.3% (1.9 m)
- Bashkirs: 1.1% (1.6 m)
- Chuvashes: 1% (1.4 m)
- Chechens: 1% (1.4 m)
- Armenians: 1.2% (1.2 m)
- ▶ 34 more ethnic groups with the size of over 100,000 people

Recent immigration waves

- The census data are reliable for the stable population, but underestimates the number of more recent immigrants
- Federal Migration Office on the number of foreign nationals in Russia:
- 2.6m nationals of Ukraine
- 2m Uzbeks
- 1m Tajiks
- 0.6m from Kazakhstan, Moldova, Kyrgyzstan each
- Most of these people are not in the census data

Geographical distribution

- Some minorities have their traditional regions of settlement in Russia (ethnic republics): Tatarstan, Bashkortostan, Chechnya, Dagestan, etc.: 21 ethnic republics
- Other minorities are of immigrant origin and come from other former Soviet states (Ukrainians, Uzbeks, Tajiks, Armenians, Azerbaijanis, etc.)
- Most ethnic regions in Russia were colonised in the period from the 16th (the Volga region) to the 19th (the Caucasus) century
- ► Former Soviet states were mostly parts of the Russian empire

Research questions

- Some minorities seem to be cuturally closer to ethnic Russians than others, but how can we measure this?
- We need some quantitative measures of ethnic distance to asess how/whether minorities integrate / assimilate with the ethnic Russian majority

Surveys of attitudes

- One way to assess the attitudes of ethnic groups towards each other is a survey
- There are survey instruments designed to measure social distance ("what would you think if a family from [...] settled near to your place")
- Problems: a) people are not always honest (social desirability bias), b) multiple measures possible, c) large sample sizes required
- Bessudnov (ESR, 2016): a) attitudes of ethnic Russians to immigrant ethnic groups vary (least negative to Ukrainians, then Moldovans, then immigrants from the Caucasus (including the North Caucasus) and Central Asia, b) this ethnic hierarchy is shared by all the ethnic groups populating Russia, including the immigrant communities

Data on social interactions

- Another way is to look at the data on social interactions (friendship, marriage)
- The assumption is that if two groups intermarry more often they are closer on the social distance scale
- The data on ethnicity of spouses is available in the census

- In demography there is a rich tradition of studying intermarriage and endogamy (see a review in Kalmijn, ARS 1998)
- Two main problems with the intermarriage data:
 - 1. Separating opportunity and choice
 - 2. Separating the preferences of both parties

Census data (2010)

- The data for this study come from the Russian census 2010
- Ethnicities of cohabiting / married partners are recorded
- There are some other variables available: age, location, birth place, etc.
- Data are available for download as contingency tables

Separating opportunity and choice

- I am mostly interested in ethnic preferences for intermarriage rather than the structure of opportunities
- Opportunities are mostly (although not only) set by geography (there are not many ethnic Russians in Chechnya or ethnic minorities in some central Russian regions)
- I limit the study to four cities in Russia: Moscow, Rostov, Ufa and Makhachkala
- Choice of cities: they must be large enough (number of observations) and ethnically diverse
- I also have data for Kazan and Vladikavkaz

Four cities

Moscow	Rostov	Ufa	Makhachkala
11.5m	1.1m	1.1m	0.6m
Russians (10m)	Russians (1m)	Russians (495)	Avars (186)
Ukrainians (154)	Armenians (42)	Tatars (286)	Kumyks (134)
Tatars (149)	Ukrainains (16)	Bashkirs (173)	Dargins (107)
Armenians (106)	Azerbaijanis (7)	Ukrainians (12)	Lezgians (89)
Azerbaijani (57)	Tatars (5)	Chuvashes (9)	Laki (86)

Other restrictions

- I limit the data only to the couples with locally born women (to exclude migrant couples)
- This may create some selection bias
- Three age cohorts (measured by woman's age): aged 16 to 35, 36 to 50, over 50. The idea is to estimate trands over time

Methods

- There are several statistical methods for the analysis of contingency tables
- We cannot use probabilities / sample proportions as they are dependent on group size
- A common measure for endogamy is an odds ratio (OR)
- We can also apply a range of loglinear / log-multiplicative models to study associations in contingency tables

2x2 contingency table and odds ratio

		husband		
	Russ		Other	
wife	Russian	n _{RR}	n _{RO}	
	Other	n _{OR}	n _{OO}	

 $OR = \frac{n_{RR}n_{OO}}{n_{RO}n_{OR}}$

OR shows how much more likely Russians are to marry Russians than other ethnic groups (measure of endogamy). OR is independent of group size

Example for Moscow

		husband	
		Russian	Other
wife	Russian	2,513,992	159,129
	Other	45,561	80,759

 $OR = \frac{2,513,992*80,759}{159,129*45,561} = 28$

Some ORs for other countries / ethnic groups

- Native born vs. foreign born in the USA: 81 (Lichter et al., 2015)
- ▶ The USA (Phillips, 2013):
 - Non-Hispanic blacks: 3525
 - Single ancestry Jews: 2085
 - Non-Hispanic Asians: 1056
 - Non-White Hispanics: 596
 - White Hispanics: 329
- ▶ The UK (Muttarak and Heath, 2010):
 - White British: 7
 - Indians: 49
 - Pakistani and Bangladeshi: 96
 - Black Caribbean: 10
- Latvians vs. Russians in Latvia: 25 in the 1990s, 15 in the 2000s (Monden and Smits, 2005)

ORs in Moscow



ORs in Moscow (logged)



Rostov



Ufa



Kazan



Makhachkala



Results for endogamy

- Moscow: lowest for Russians, Ukrainians, Belorussians, highest for Azerbaijanis, no visible trend towards more intermarriage (if anything endogamy has been increasing for some groups)
- Rostov: similar to Moscow
- Ufa and Kazan: low endogamy for Russians, Tatars and Bashkirs. Mucg lower endogamy in younger generations for these three groups
- Makhachkala: very high endogamy for all ethnic groups. Trend towards more intermarriage in younger generations for most aboriginal groups, but not for ethnic Russians and other non-aboriginal groups

Endogamy and intermarriage

- Odds ratios let us estimate endogamy for specific ethnic groups
- What about patterns of intermarriage between different ethnic groups?
- Of course, we can estimate many local odds ratios for contingency tables, but there are more parsimonious ways of modelling

Loglinear models

- In log-linear models we model frequencies in the cells of contingency tables as a function of the row and column distributions and the interactions between rows and columns
- Log-multiplicative models extend this class of models to nonlinear interaction terms
- We estimate the models and then explore which model fits the data in the best way

Some models

- ► Independence: F = W + H. Complete mixing, there are no ethnic preferences in marriage
- Quasi-independence: F = W + H + Diag(W, H). People may prefer partners from their own ethnic group, but when they marry in other ethnic groups, there are no ethnic preferences
- ► RC2 model: F = W + H + Diag(W, H) + Mult(W, H). When people marry outside their own ethnic group, there are some ethnic preferences, and we model them as a coefficient for each ethnic group. This can be done separately for men and women or together for both genders, in one or two dimensions
- Unidiff model:

F = W + H + C + WC + HC + WH + Mult(C) * WH. The patterns of association between ethnicties of wifes and husband are stable over time, but the strength of the association changes

Residuals from the quasi-independence model: Moscow



Residuals: Rostov



Residuals: Ufa



30 / 37

Residuals: Makhachkala



Unidiff models

- Moscow and Rostov: the association between the ethnicities of spouses is stable over time
- Kazan, Ufa, Makhachkala: the association between the ethnicities of spouses has been decreasing

RC2 models

- Testing if we can assign an interaction coefficient to each ethnic group and sort all ethnic groups on a scale
- This scale would then describe a hierarchy of ethnic preferences
- The estimation of this class of models is not straightforward and I have not yet achieved convergences for some cities

RC2: Moscow

women		men	
Russian	0.03	Russian	0.1
others	-0.5	Ukrainian	-0.5
Ukrainian	-0.9	Belarusian	-0.6
Belarusian	-0.9	Georgian	-1
Tatar	-0.9	Tatar	-1.1
Jewish	-0.9	others	-1.1
Armenian	-1.3	Armenian	-1.3
Georgian	-1.5	Azerbaijani	-1.3
Azerbaijani	-2	Jewish	-1.6

Note correlation with endogamy

RC2: Ufa

	women	men		
_	Georgian	6.6	Jewish	0.6
	Mordvin	1.7	Belarusian	0.6
	Ukrainian	1.2	Ukrainian	0.4
	Belarusian	1.1	Mordvin	0.3
	Armenian	0.6	German	0.3
	Russian	0.6	Russian	0.2
	Jewish	0.5	Chuvash	0.1
	German	0.5	Armenian	0
	Chuvash	0.1	Georgian	0
	others	-0.2	Mari	0
	Mari	-0.3	others	-0.1
	Azerbaijani	-0.8	Azerbaijani	-0.4
	Tatar	-1.4	Tatars	-0.4
	Bashkir	- 2.2	Bashkirs	-0.6

RC2: Makhachkala



coef(Makhachkala.rc2.homo)[169:187]

Rreliminary conclusions

- Differential endogamy for different ethnic groups and locations
- Endogamy for specific groups depends on location (cf. Tatars in Moscow and Ufa, Russians in Moscow and Makhachkala)
- Trend toward greater intermarriage in ethnic republics in the second half of the 20th century (Ufa, Kazan, Makhachkala for aboriginals only), but not in ethnically Russian locations (Moscow and Rostov)
- Scales of ethnic preferences specific for each location

Further work and discussion

- Theory: what do these patterns and trends show for the dynamics of ethnic relations in Russia?
- Cleaner statistical analysis
- Incorporating education?