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Validity and comparability of the education measures in the European Values Study 2008

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Introduction

Motivation

- Educational attainment:
 - Is a key socio-demographic variable
 - Reflects socialization, social stratification and individual life changes
 - Usually correlates with attitudes, beliefs, values, and behaviors
- Often, different measures of education are provided in a single data source

Previous research

- Prior research showed differences in comparability and validity of different measures of education:
 - Braun& Müller (1997):
 - DV: political interest, gender-role ideology, cultural capital prestige, income
 - 4 countries using different datasets
 - Schneider (2010):
 - DV: International Socio-Economic Index (ISEI)
 - 34 countries, using ESS data from 2002, 2004, 2006
 - Schneider (2018):
 - DV: literacy skills
 - 33 countries, using PIAAC data from 2011/12 and 2014/15

Research question

How comparable and valid are the different measures of education of the EVS 2008 when analyzing attitudes?

Benefit of this study:

- Focus on analyzing attitudes
- Higher country coverage
- Different data source

Political interest and education

- Education is associated with more liberal attitudes towards many subjects apart from economic issues
- Education displays beliefs/ attitudes prevalent in the education system
- Education shifts opinions mostly to the left side of political attitudes (Weakliem 2002)
- Political dissatisfaction and low education correlate with less political interest and abstention from voting (Allen 2017)

Data & Method

European Values Study (EVS)

- Covers respondents' values, attitudes, beliefs
- 1st round: 1981; conducted every 9 years
- EVS 2017/ 18 is currently fielded
- Coverage: 47 European countries/regions in 2008, esp. Eastern Europe
- Huge improvement of socio-demographic variables in 2008:
 - Much information on partner and parents
 - Incl. many different education measures

Variables

- Dependent variable: Political interest – 4 cat (v186)
- Independent variables: Measures of education
 - Country-specific measures (v336_cs)
 - ISCED97 main levels – 7 cat (v336)
 - ISCED97 detailed – 15 cat (v336_3)
 - “CASMIN” main levels – 8 cat (v336_4)
 - “CASMIN” detailed – 11 cat (v336_5)
 - Broad ISCED measure – 3 cat (v336_r)
 - Age completed education (v335)

Country-specific (CS) education variable

- Displays the country-specific educational qualifications with their original names in the respective language
- Mirrors the national educational system, incl. idiosyncratic institutional differences

ISCED97

- International **Standard Classification of Education**, version of 1997
- Aims at achieving comparability in educational statistics
- Implemented using ex-ante output harmonization
- ISCED levels:
 - 0: Pre-primary education or none education
 - 1: Primary education or 1st stage of basic education
 - 2: Lower secondary or 2nd stage of basic education
 - 3: Upper secondary education
 - 4: Post-secondary non-tertiary education
 - 5: 1st stage of tertiary education
 - 6: 2nd stage of tertiary education
- Additional dimensions cover programme orientation, programme destination, and programme duration

CASMIN

- Project on “**C**omparative **A**nalysis of **S**ocial **M**obility in **I**ndustrial **N**ations”
- Analyzes relationship between education and the social mobility process in European countries
- Implemented using output harmonization
- CASMIN levels:
 - 1a: Inadequately completed elementary education
 - 1b: Completed (compulsory) elementary education
 - 1c: Incomplete secondary school: technical/ vocational type
 - 2a: Complete secondary school: technical/ vocational type/ secondary
 - 2b: Incomplete secondary: university-preparatory type/ secondary,
 - 2c: Complete secondary: university-preparatory type/ full secondary
 - 3a: Some university without degree/ higher education - lower-level tertiary
 - 3b: University with degree/ higher education - upper-level tertiary
- Additional differentiation on gen/ voc orientation
- In EVS 2008: CASMIN is derived from detailed ISCED variable

Further measures

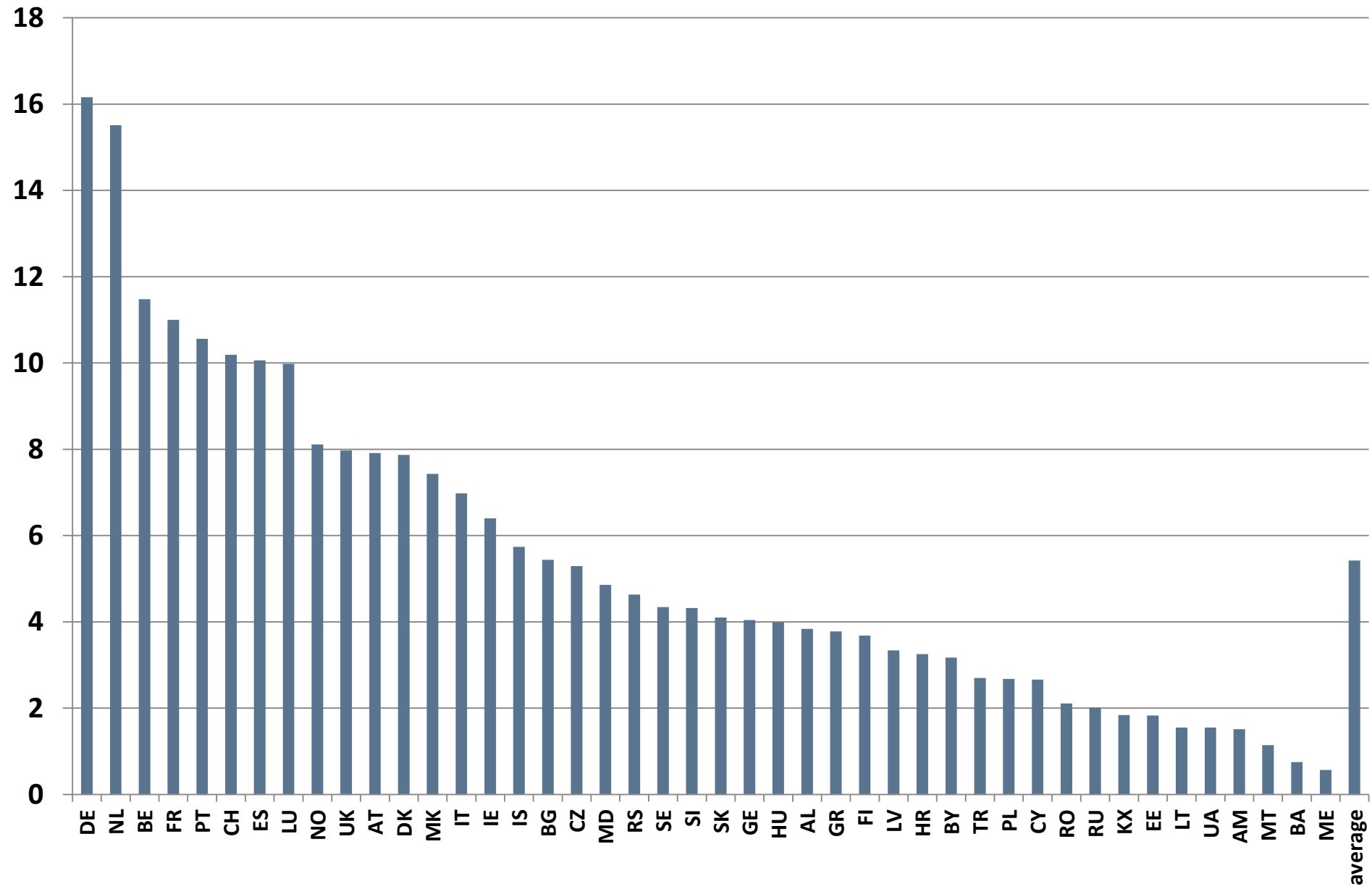
- Broad ISCED measure (3 cat)
 - Simplest and commonly-used variable
 - Derived from ISCED measure:
 - Low: ISCED 0-2
 - Middel: ISCED 3-4
 - High: ISCED 5-6
- Age completed education
 - Measures the length of being in education
 - Continuous measurement
 - Close to measure of years of schooling

Methods

- Comparative construct validation of political interest using different measures of education
- Calculation of linear regression models
- Comparison of predictive power of the models (adjusted R²)
- Most education variables are included as dummy variables
- Country-specific measurements are used as benchmarks
- Not controlling for age and gender

Results

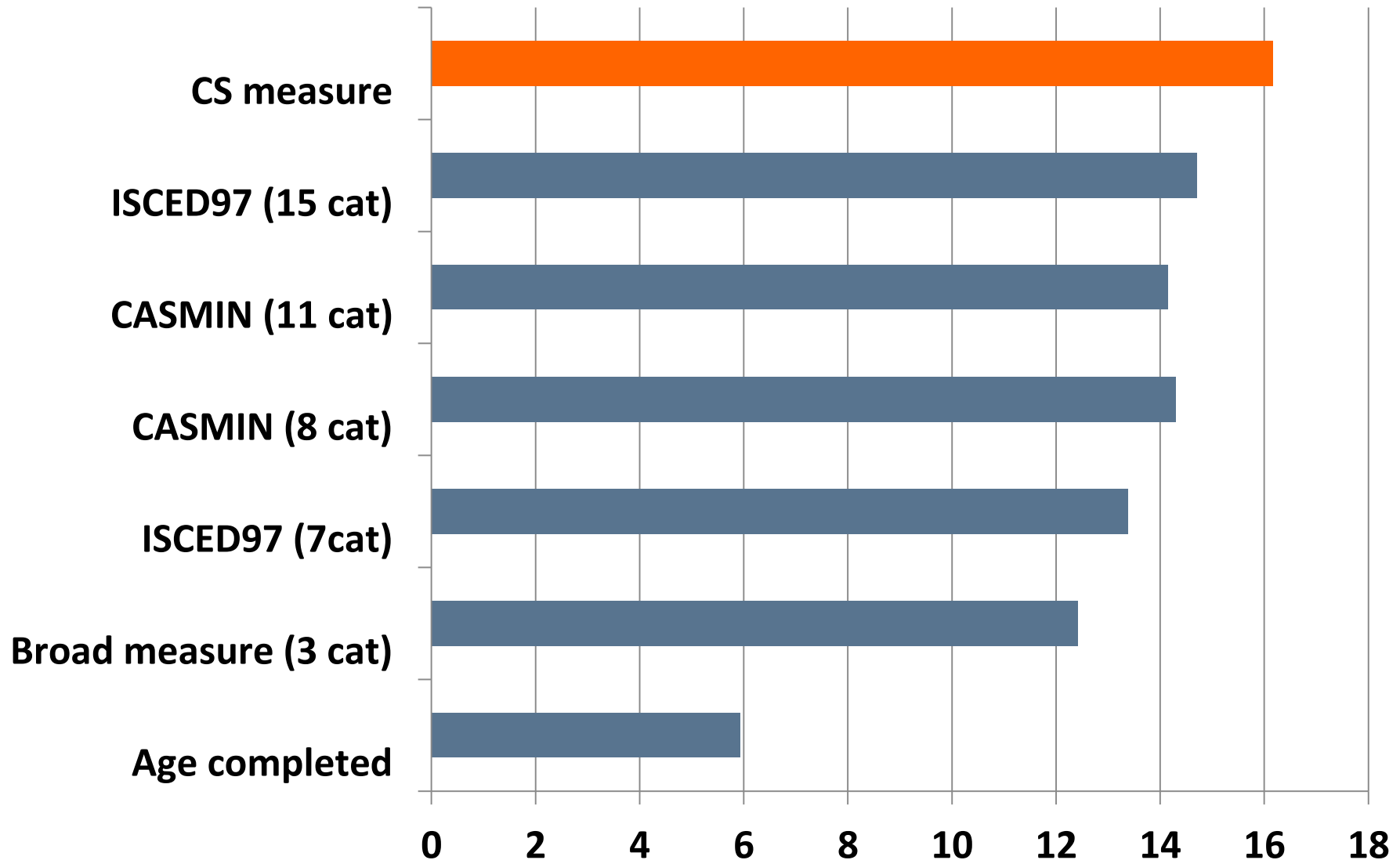
Predictive power (aR2) of country-specific measures



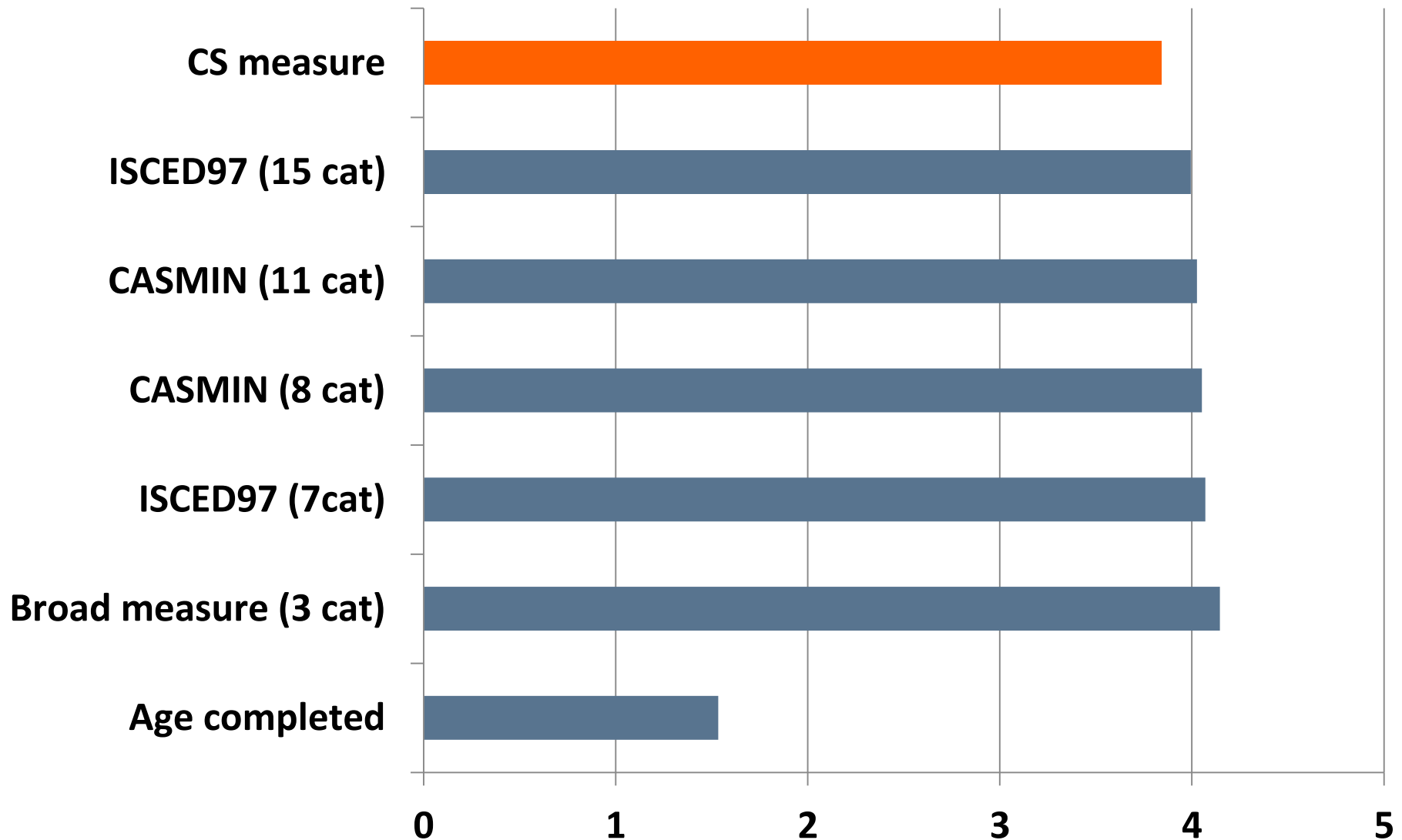
Some descriptives

- High adj R2 for Germany (16.2 %), Netherlands (15.5%), Belgium (11.5%)
- Low adj R2 for Montenegro (0.6%), Bosnia-Herzegovina (0.8%), Malta (1.1%)
- Average adj R2 is 5.4%
- Correlation main ISCED levels and political interest is $-.22$

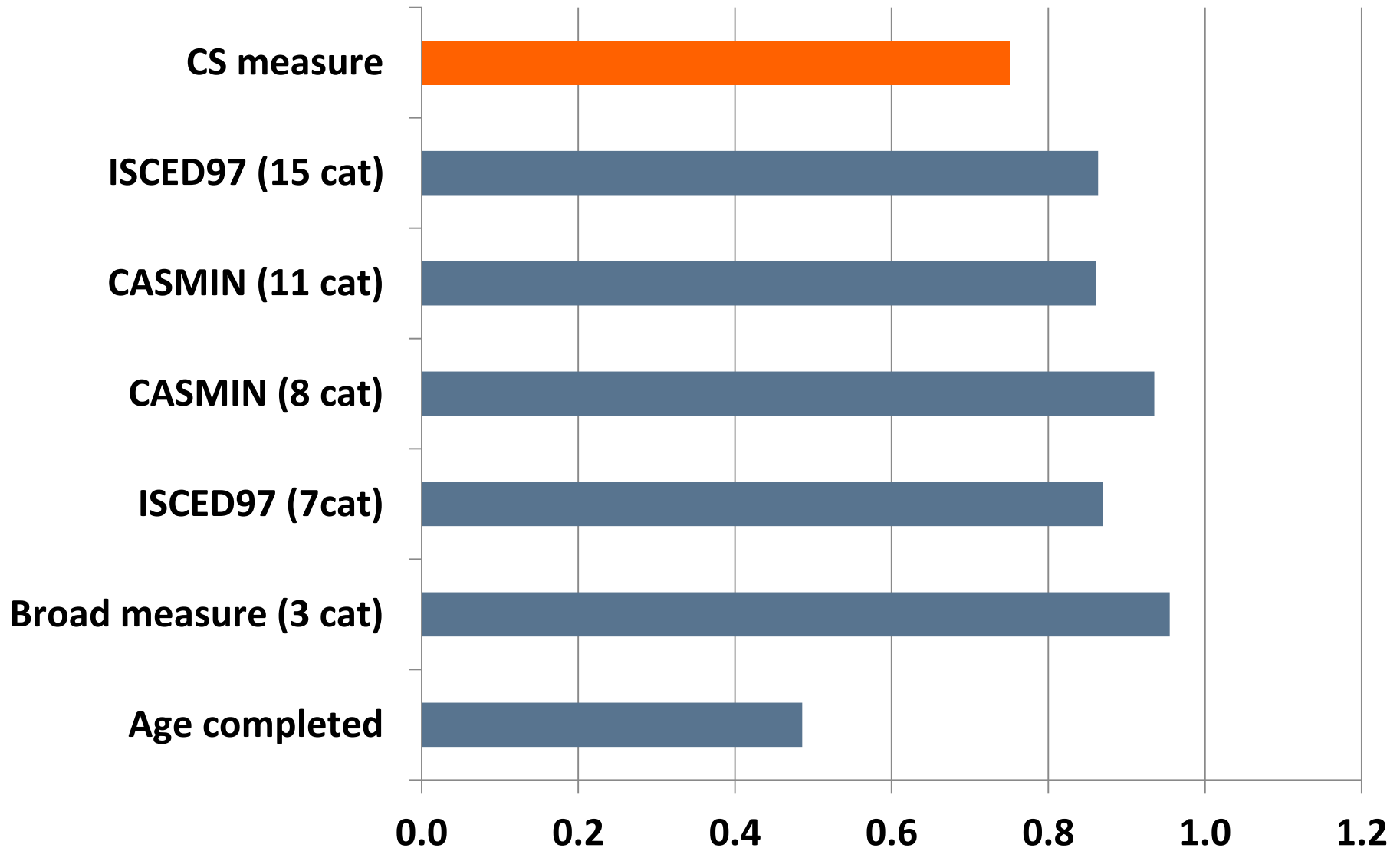
Predictive power (aR2) of different education measures for Germany



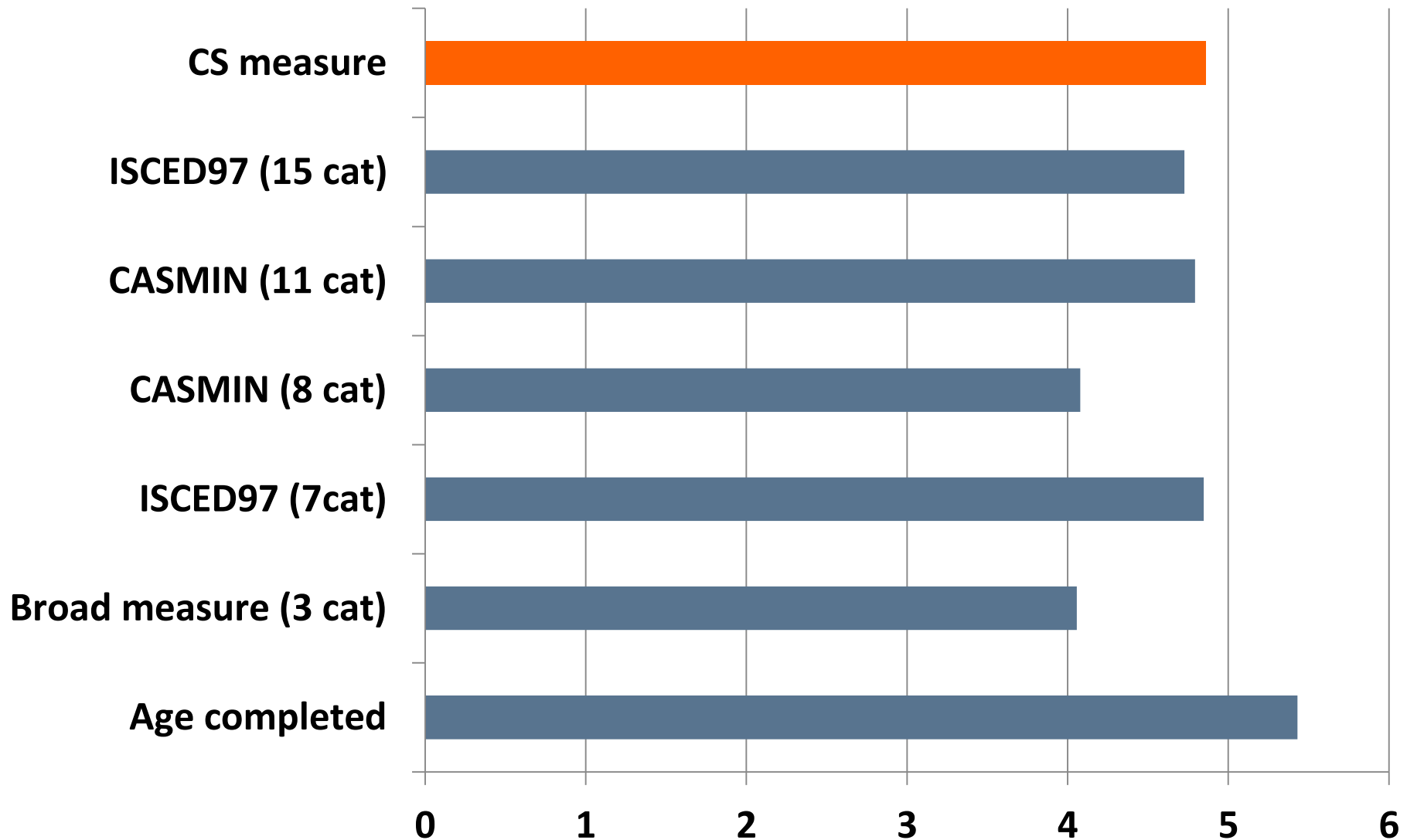
Predictive power (aR2) of different education measures for Albania



Predictive power (aR2) of different education measures for Bosnia-Herzegovina



Predictive power (aR2) of different education measures for Moldova



Conclusion

Summary

- Large variation of adj R2 when analyzing the influence of education on political interest across countries
- For most countries the CS-measures show the highest adj. R2 and age completed education the lowest
- Some countries show nearly equal adj. R2 for all categorical measures
- In single countries, age completed education shows the highest adj. R2
- Number of dummy has to be considered
- Be aware of losing information when deciding for a simpler education measure

Limitations

- Education is only one aspect that influences political interest
- Quality of the country-specific measurements sometimes insufficient

Next steps

- Look at certain countries more deeply
- Second analysis, controlling for the effect of the different education systems

Thank You!

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