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CCSR

The Cathie Marsh Centre for Census and Survey Research

A longitudinal comparison of depression in later life in the US and England

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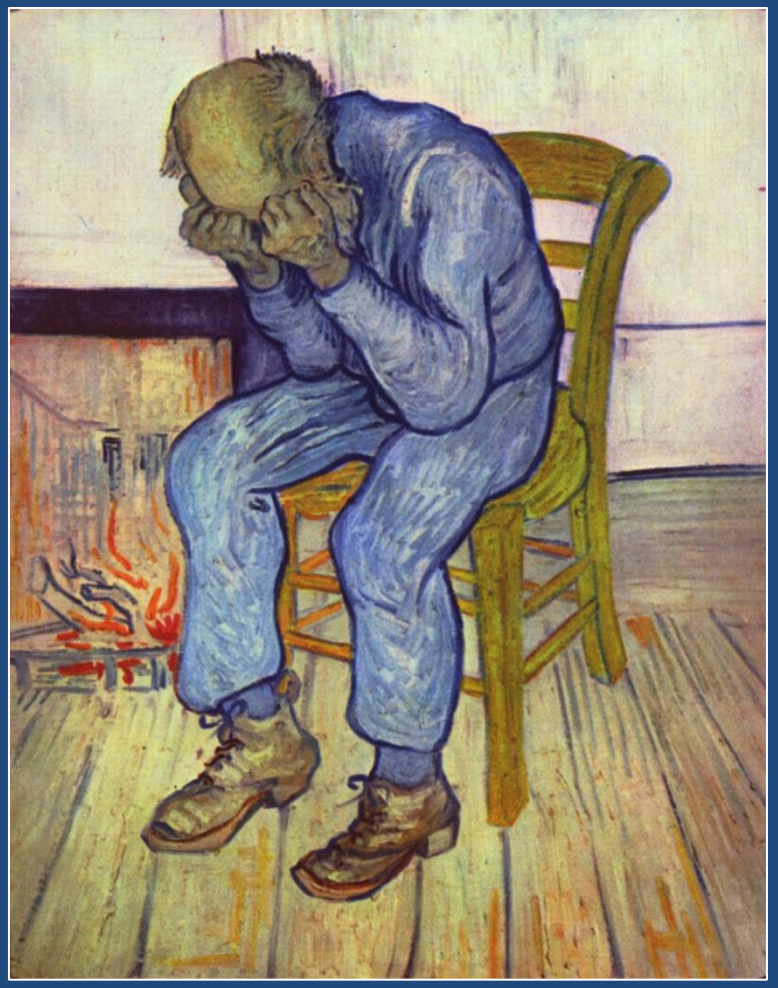
Introduction

- Why study depression …
  - … in later life?
  - … longitudinally?
  - … comparatively?



Sorrowing old man, Vincent Van Gogh, 1890

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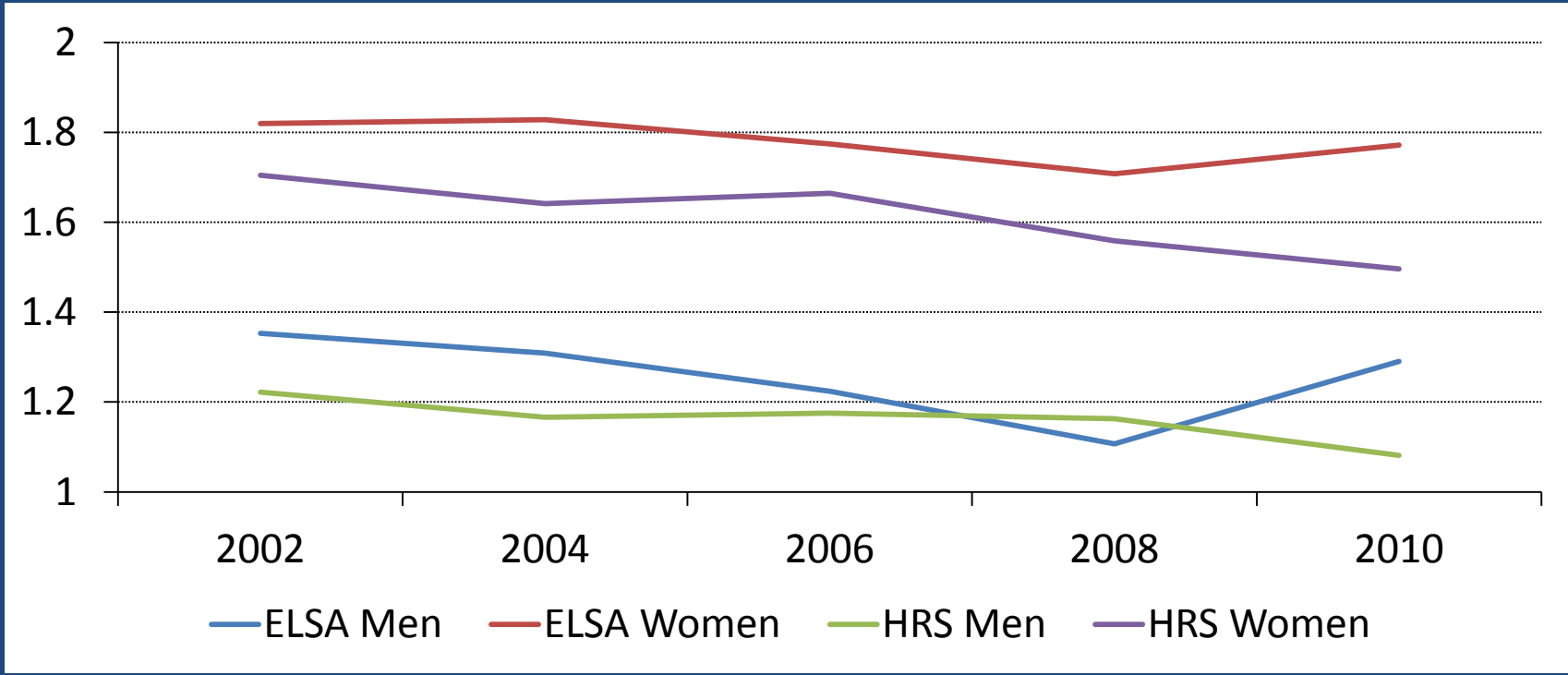
Departing from two findings



- More depression among women than men (Piccinelli & Wilkinson 2000)
- More depression in England than US (Weissman et al 1996, Zivin et al 2010)

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Possible explanations

1. Measurement instrument functions differently?

2. Difference in associations between social factors and depressive symptoms?

3. Background context effects?

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Theoretical expectations

- Depression is not a monolithic disease, but an emotional disorder accompanied by physiological symptoms…

  -> Mood (feeling sad, not enjoying life, …)

  -> Somatic symptoms (tiredness, sleep problems, …)

- Somatic symptoms not unique to depression, but also related to chronic illnesses, cognitive impairment, general stresses of later life (Parmelee, 2007)

Centre for Epidemiological Studies Depression scale (CESD)

- (Much of the time during past week),
  - You felt depressed?
  - You felt that everything you did was an effort?
  - Your sleep was restless
  - You were happy
  - You felt lonely
  - You enjoyed life
  - You felt sad
  - You could not get going

- Answer with Yes/No

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1. Measurement

- Multiple Group Confirmatory Factor Analysis (MGCFA)
- … CFA?
  - A ‘theory-driven’ way to measure latent concepts through observed indicators
    - Theory-driven because the relations are specified before doing analysis
    - Latent concepts -> values / diseases
    - Observed indicators -> items / symptoms / …
- … Multiple group?
  - Because we want to investigate the latent concept in several groups (countries/gender), and want to see if the structure between indicators and concept is the same in the different groups

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Results MGCFA

(wlmsv estimation on 2002 ELSA/HRS data)

Whole sample	RMSEA	CFI
CES-D scale (1 factor)	.075	.965
Mood and Somatic factor (2 factors)	.052	.984

By country and gender (4 groups) 2 factor model (Mood & Somatic)	RMSEA	CFI
Configural invariance	.055	.982
Metric invariance	.056	.977
Scalar invariance	.056	.977

Note: Fit indices RMSEA: good fit if <.06
CFI good fit if >.95

(Hu & Bentler 1999)

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Results Measurement

-> Depression is best measured using 2 seperate scales, one for mood and one for somatic symptoms

-> Scales are equivalent over gender and country

-> Differences between countries and genders are not due to differential functioning of scale items

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2. Differential associations

- Method:
  - Panel-data : multiple observations for each person
  - > Multilevel growth model to account for changes over time within individuals

- We do not want to impose a threshold on the number of symptoms needed to be categorised as depressed
  - > Count data instead of categorical approach

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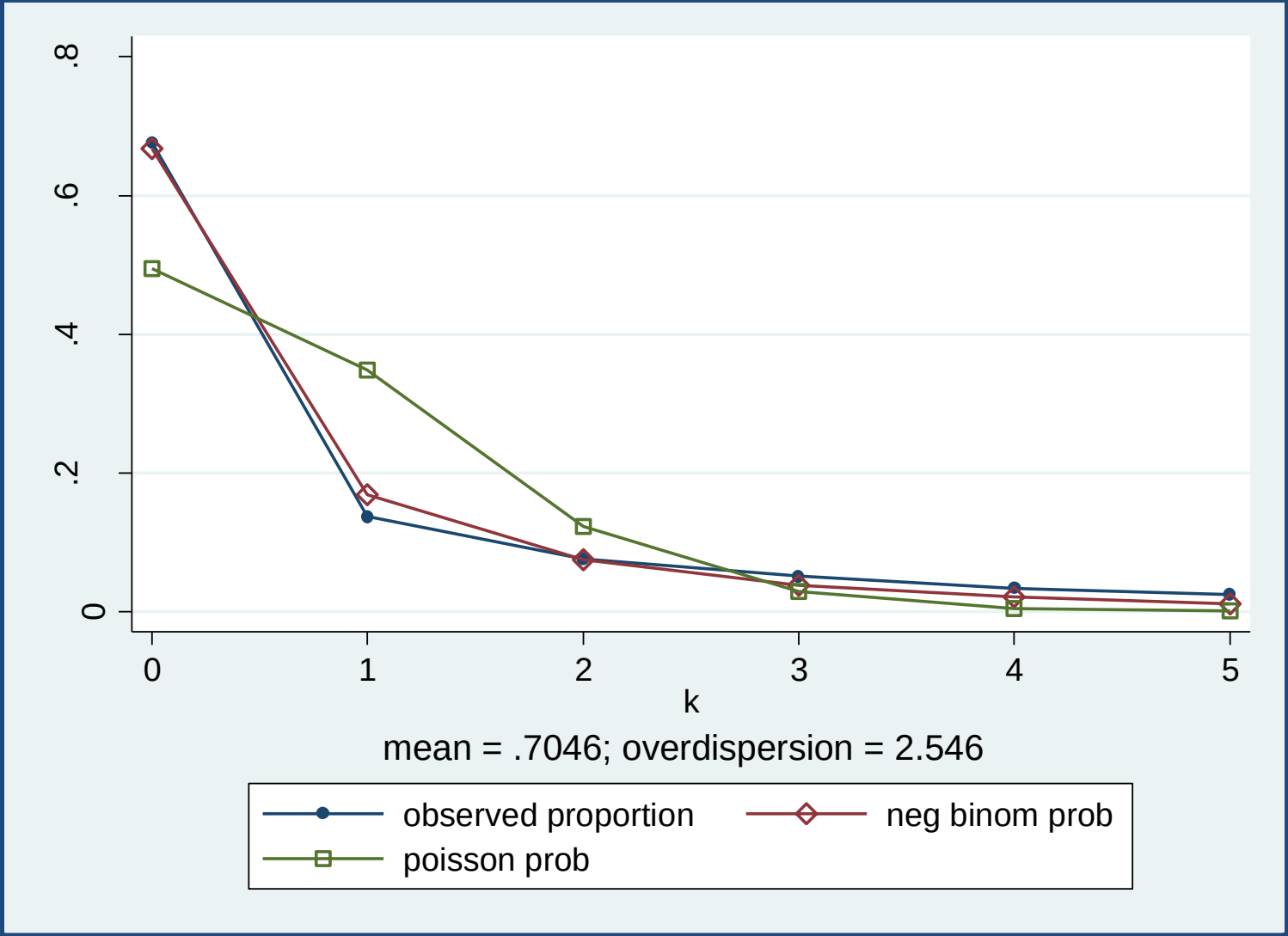
Mood Symptoms



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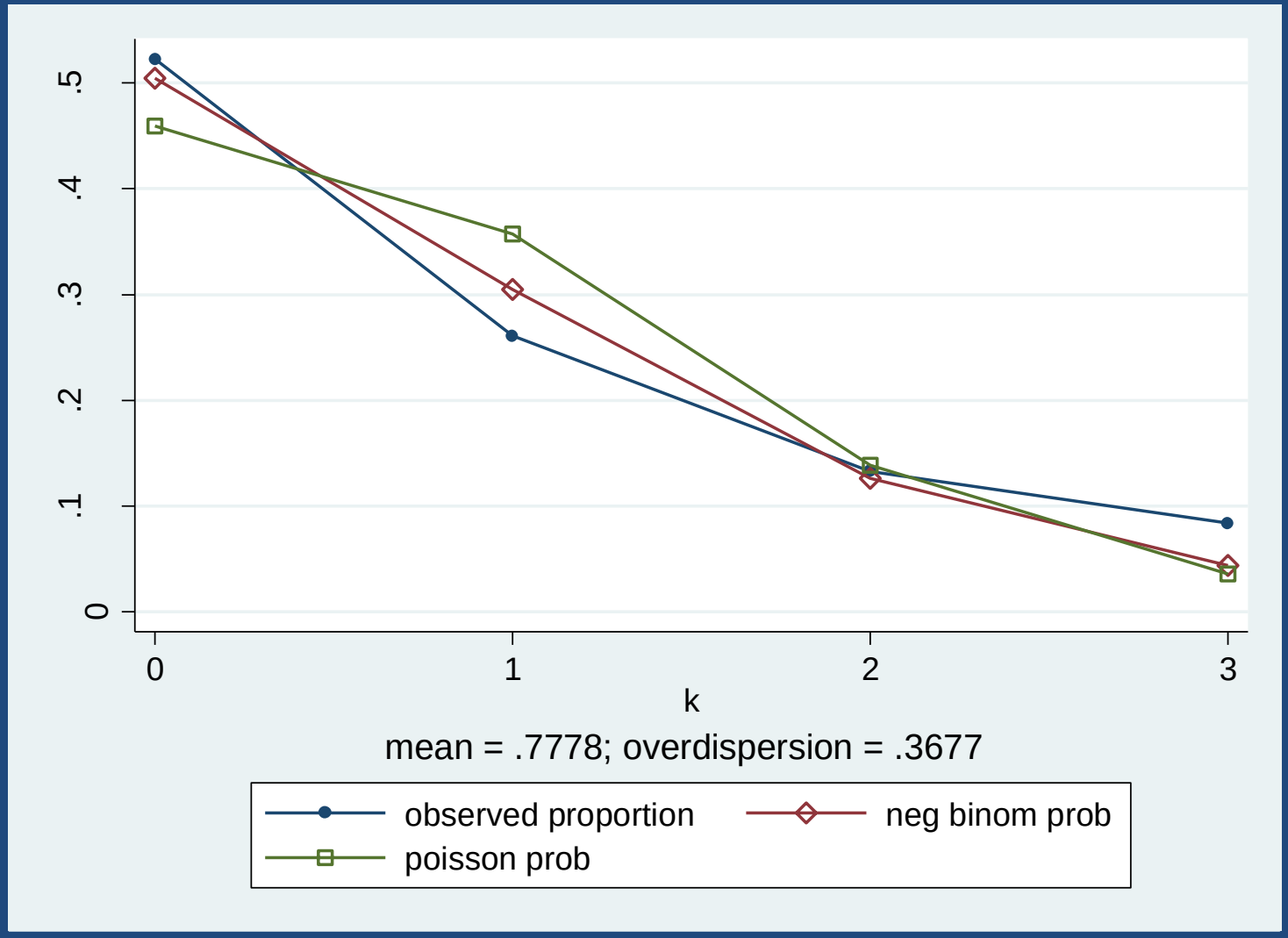
Somatic Symptoms



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What's comparable?

- 'Ethnicity'
- *Employment status*
- *Marital status*
- Education
- *Wealth*
- *Limitations in activities of daily living*
  - > + interactions with gender/wave/country

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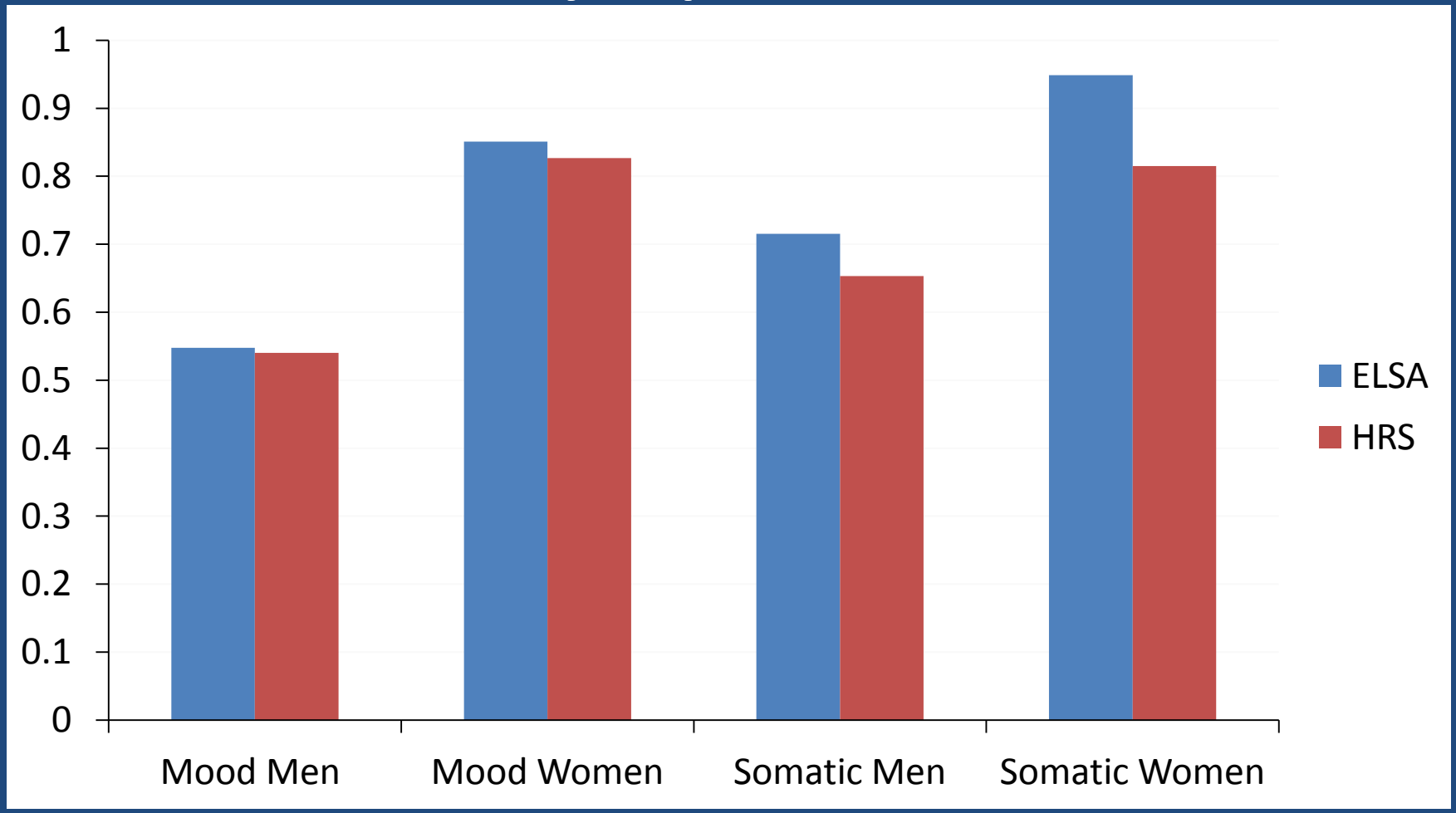
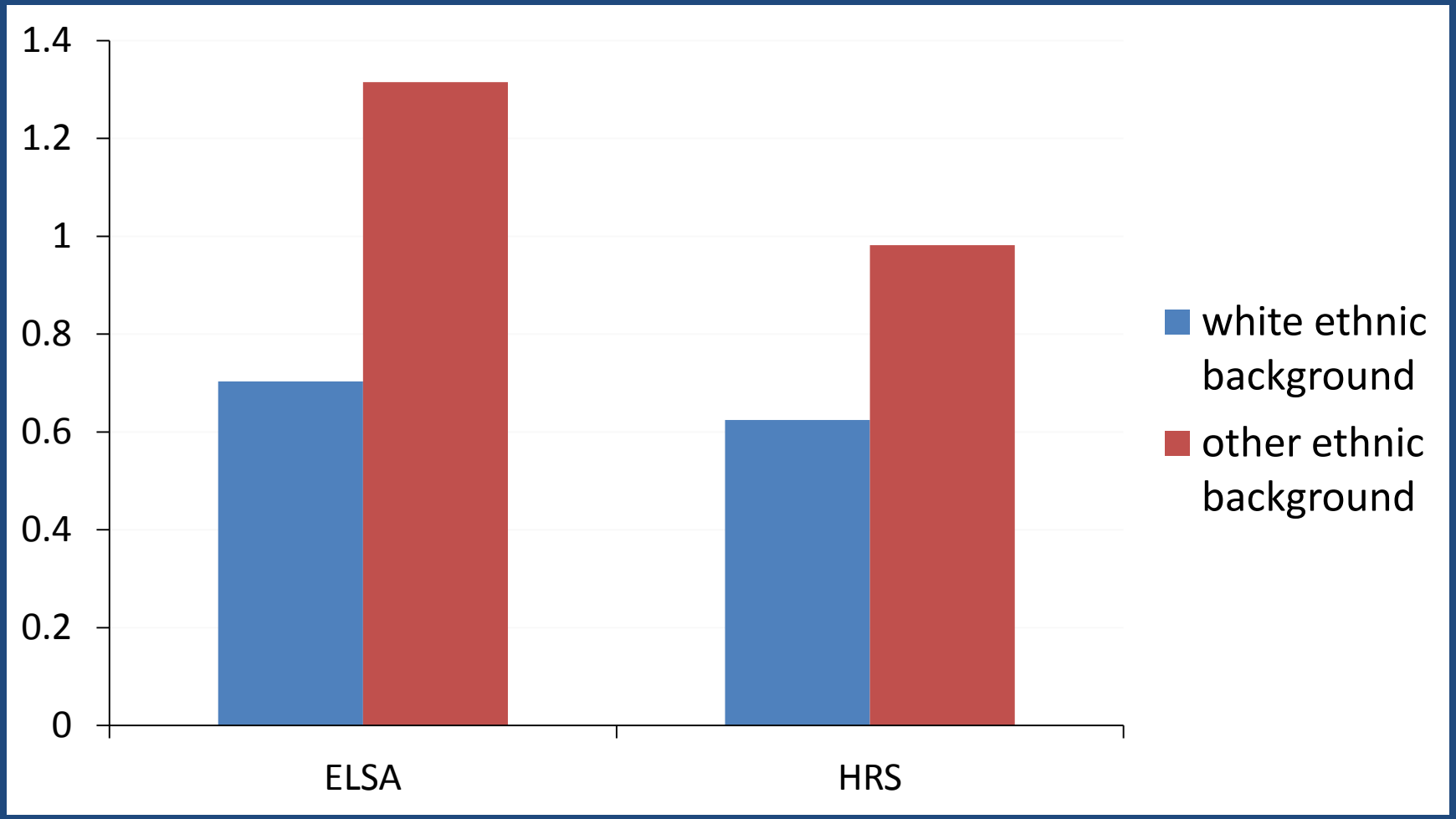
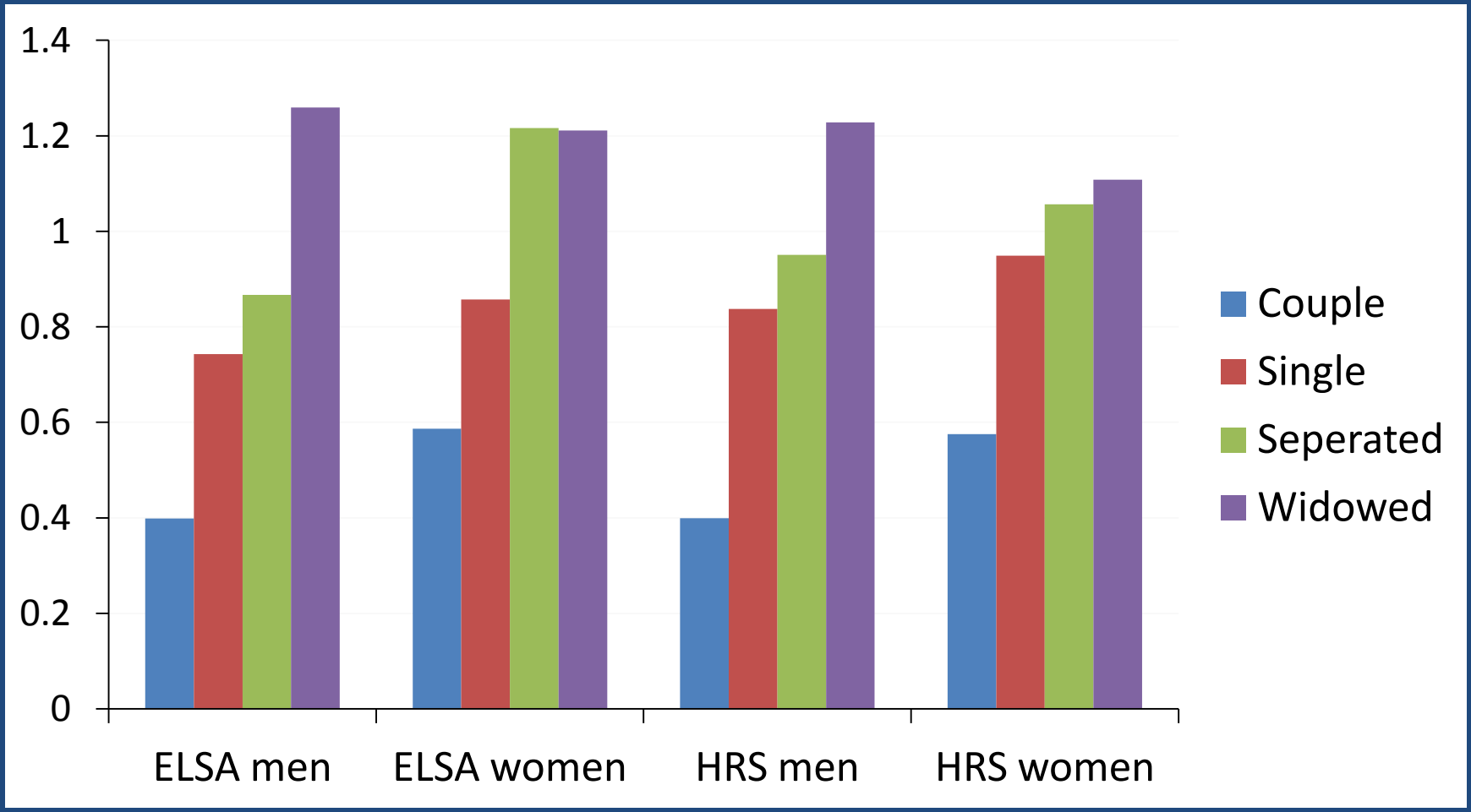
Gender, country and depressive symptoms



Ethnic differences in mood symptoms



Partner status and mood symptoms



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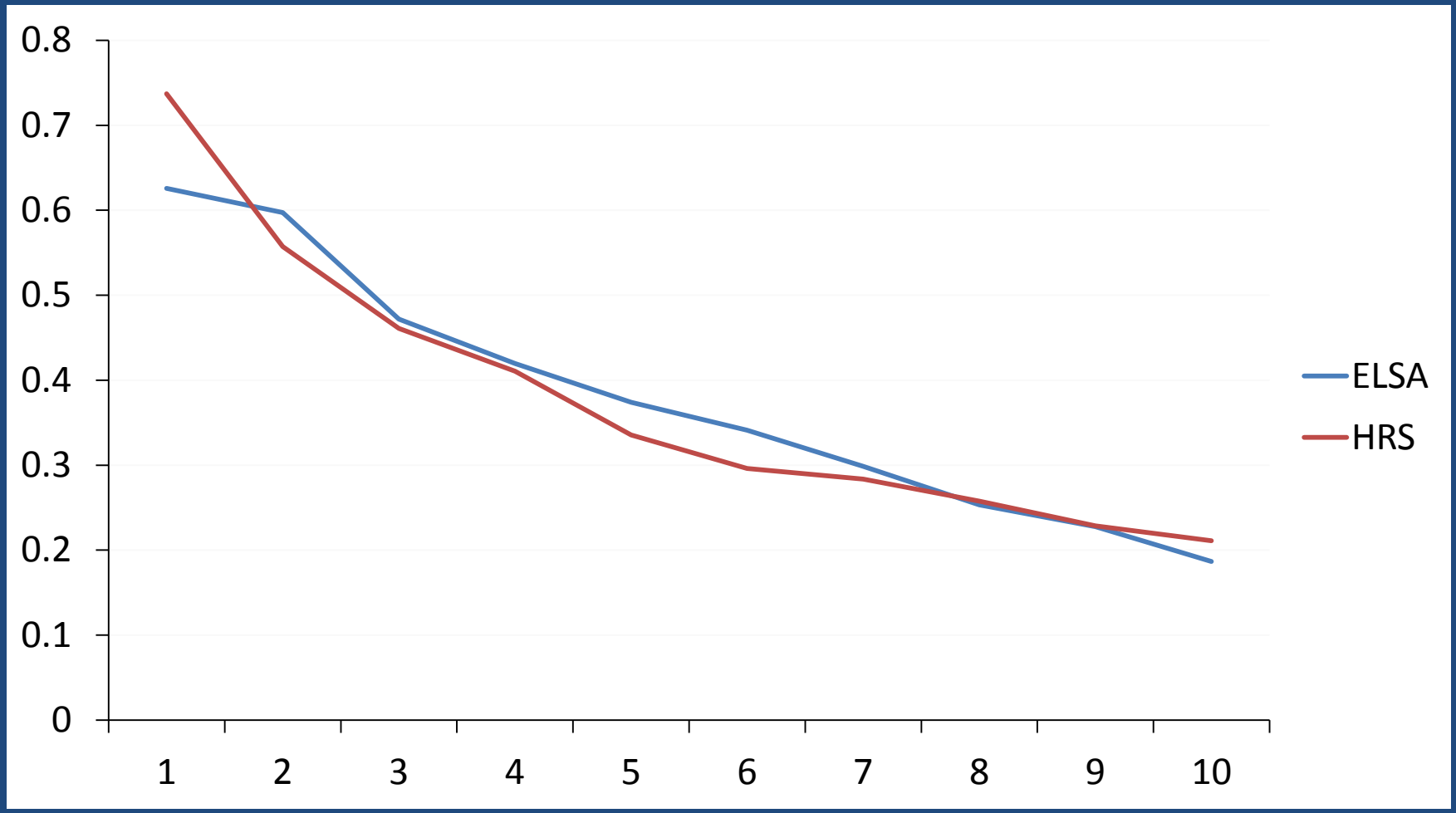
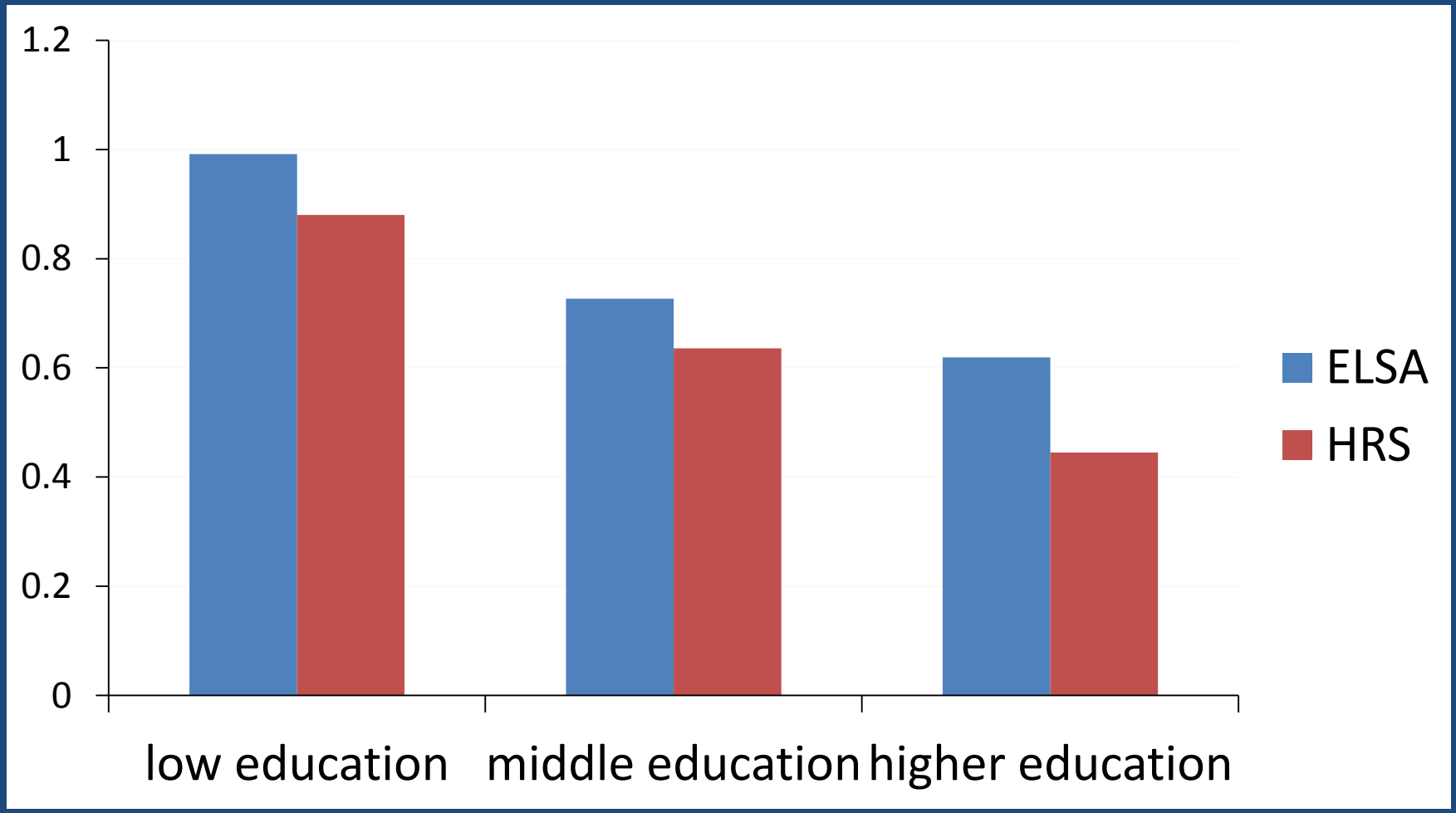
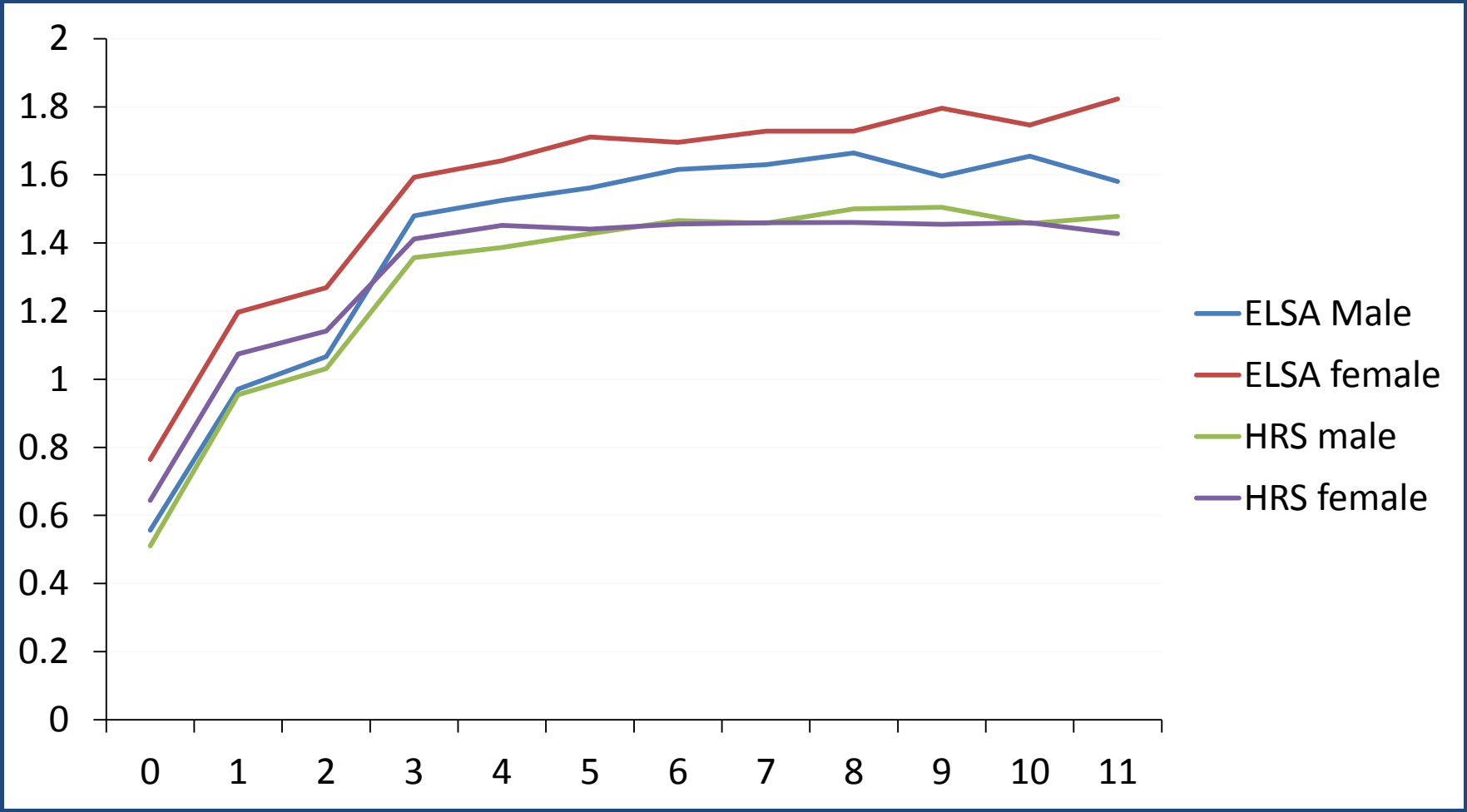
Wealth gradient in mood



Educational differences in somatic symptoms



Somatic symptoms and adl



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Conclusion: Measurement

- CESD has very good properties to be used for comparative studies
- In later life, it makes sense to distinguish mood symptoms from somatic symptoms
  - Mood more influenced by partnership status (especially for men)
  - Somatic symptoms more related to educational differences and limitations in ADL -> might not be clinical depression

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Conclusion: Differential effects

- Being non-white or having a degree more associated with depressed mood in England compared to US

- Being single or having limitations in ADL gives higher chance for depressive symptoms in US

Conclusion: Background effects?

- The strongest sex: a construction of masculinity?
  - Suicide rates among men about 4 times higher
  - Coping works quite different between genders
- Psychotherapy culture in the USA:
  - Role of prior depression and treatment