

# Risky health behaviours and socioeconomic status – Explaining the health gradient

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# Motivation

- 17.3% of global mortality are attributable to tobacco use, overweight & obesity and alcohol use
- Literature: Socioeconomic status (SES) as one explanation for an individual's unhealthy lifestyle
- Basic assumption: Investment in own health is possible (Grossman, 1972)

# Research questions

- Explaining the correlation between SES and unhealthy lifestyle

One explanation:

Intrinsic and consistent „discount rate“



→ Question remains: Why does the SES affect individual health behaviour?

# Data

- SHARE Database – Survey of Health, Ageing and Retirement in Europe
- Face-to-face interviews with 45.000 Persons in 2008 (Wave 2)
- Born 1954 or earlier
- 15 european countries
- Questions on: health, bio-markers, psychological variables, economic variables, financial situation, social support variables

# Methods

- 4 logistic regressions with:
  - Smoking
  - Heavy alcohol consumption
  - Occasional alcohol consumption
  - Obesity

as binary dependent variables
- Main explanatory variable: level of education  
(by International Standard Classification of Education)

# Methods (contd.)

- Mediating variables:
  - Cognitive ability
  - Attitude towards life
  - Social integration
  - (Occupational status and household income)
- Software: STATA 10

# Methods (contd.)

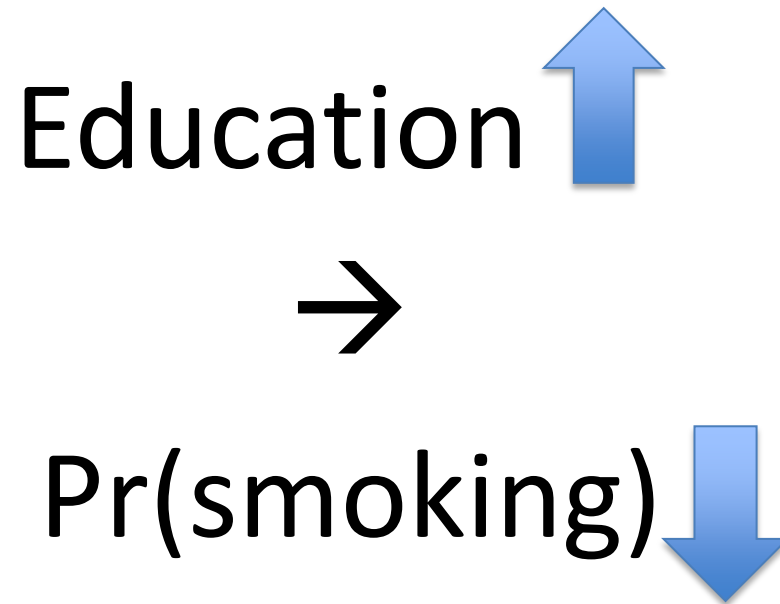
- Logistic regression(s):

$$y_i = \alpha + education * \beta_1 + age * \beta_2 + gender * \beta_3 + X * \beta_{n+3} + \varepsilon_i$$

- ✓ Proxy for SES: education
- ✓ Control variables: age and gender
- ✓ Vector X: Re-estimations with mediating variables



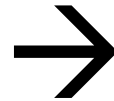
# Results - Smoking



Mediators: life attitude and social integration

# Results – Heavy drinking

Education 

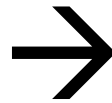


Pr(heavy drinking) 

→ Unexpected result!

# Results – Occasional drinking

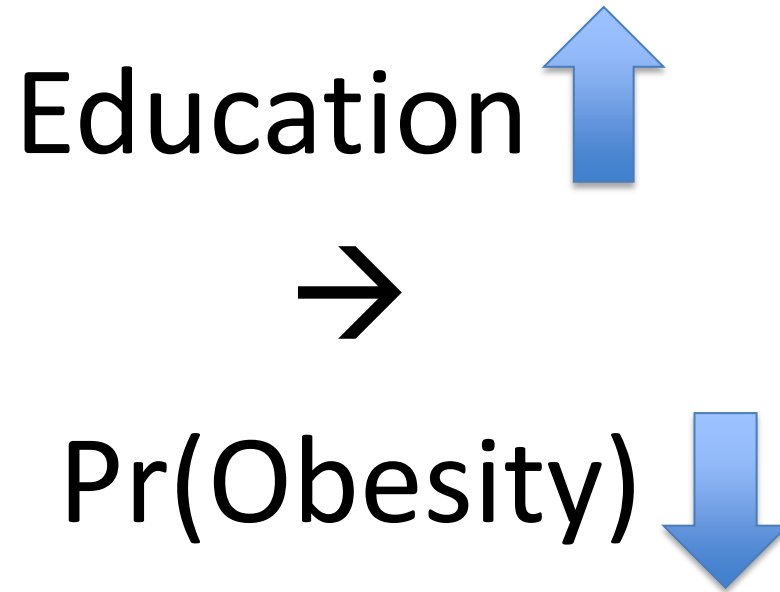
Education 



Pr(occ. drinking) 

Mediators: all except income

# Results – Obesity



Mediators: life attitude and social integration

# Logistic Regressions - Results

1. Unhealthy habits do **not correlate**
2. Influence of the mediating variables on the relationship between education and health behaviours is **not clear**

Alternative explanation?

Cumulative „Lifestyle-Variable“

→ **Additive Theory** ←

# Additive Theory - Methods

- Ordered logistic regression
- (Dependent) index variable:
  - (0) zero bad habits
  - (1) one bad habit
  - (2) two bad habits
  - (3) three bad habits
- Explanatory and mediating variables as before

# Additive Theory – Results

- Finishing secondary schooling reduces the probability of adopting:
  - 1 bad habit by 3%
  - 2 bad habit by 10%
  - 3 bad habit by 11%
- Chance of adding another bad habit to the first one decreases by about 8% on average with each level of education

# Limitations

- Missing values due to systematic attrition
- Reverse causalities
- Level of education as a continuous variable



**Questions?**  
**Comments?**  
**Suggestions?**

***Thank you!***