# Partnership transitions and cognitive functioning among the European 50+

**Ariane Bertogg, University of Konstanz**
**Anja Leist, University of Luxembourg**

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# Outline

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# State of Research and Contribution

## State of the Art & Motivation

- Dementia still not curable → Prevention of cognitive decline
- **Social integration** seems to be crucial for prevention
- But: Mechanisms still under-researched (e.g., support, cognitive stimulation, healthy behavior, access to resources)
- **Diversity** of partnership forms in the second half of life (singlehood ≠ divorce ≠ widowhood; marriage ≠ repartnering). Different implications for social integration, behavior, resources
- Partnership transition risk and potential explanatory mechanisms → Socially **stratified**!

## Research Questions

- (1) How do partnership statuses affect cognitive functioning in older age?
- (2) Is the influence of partnership mediated through resources, behaviour and integration?
- (3) Are there different patterns between the social strata?

## Contribution

- Partnership as **one important aspect** of social integration; distinguishing 5 statuses
- Longitudinal: Explain changes with changes
- Testing different mechanisms (mediation & moderation)

# Theoretical Model

**Cognitive Reserve:** (Stern 2002; Livingston et al., 2017)

Defines starting point of decline trajectory and buffers speed of decline

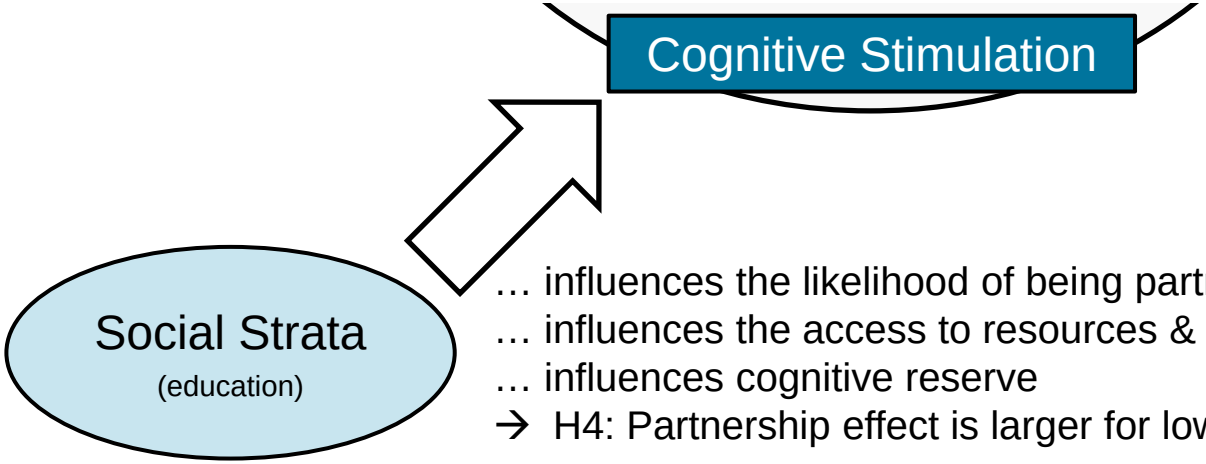
Decline is inevitable

Depends on Education & occupation, but also on resources, activities, networks

**Cumulative Advantage; Life Course Theory:** (Elder 1998; Mayer 1994; DiPrete & Eirich 2006; Settersten 2015)

Inequalities increase over time, resources drive widening gaps

Partnership transition = Loss of resources + Stress




… influences the likelihood of being partnered
… influences the access to resources & integration
… influences cognitive reserve
→ H4: Partnership effect is larger for lower-educated

# Data and Analytical Strategy

## Data

- Survey of Health, Ageing and Retirement (SHARE), W1-2,4-7
- N=84,491 respondents, 50 plus

## Cognitive Functioning

- Memory: Short-term
- Memory: Long-term
- Verbal fluency: Naming words

## Partnership Status

- Married / cohabiting; Divorced / Separated; Widowed; Never married; Repartnered

## Mediating mechanisms

- Social Integration: #Children, #Grandchildren, Gives/Receives Help
- Cognitive stimulation: Educational and social activities
- Health behaviour: Drinking, Smoking, Weekly workout
- Economic resources: Low income, homeownership

## Analytical Strategy

- Fixed Effects linear regression models
- Plus mediation mechanisms: (1) separate (2) simultaneous
- Plus moderating mechanisms: Education, separate models for three groups

# Partnership Transitions and Cognitive Functioning (Fixed Effects Models)

| | First recall | | Delayed recall | | Verbal fluency | |
|---|---|---|---|---|---|---|
| | Bivariate | Full model | Bivariate | Full model | Bivariate | Full model |
| Married or cohabiting (ref.) | | | | | | |
| Repartnered | -0.0 | -0.019 | -0.052 | -0.024 | -0.039 | -0.008 |
| Single | -0.091 | -0.070 | -0.068 | -0.[illegible] | -0.133 | -0.[illegible] |
| Divorced | -0.061** | -0.023 | -0.038* | -0.003 | -0.077* | -0.043 |
| Widowed | -0.085*** | -0.031 | -0.064* | -0.011 | -0.047** | -0.000 |
| n (person-years) in n (persons) | 244,278 | 244,278 | 244,239 | 244,239 | 243,716 | 243,716 |

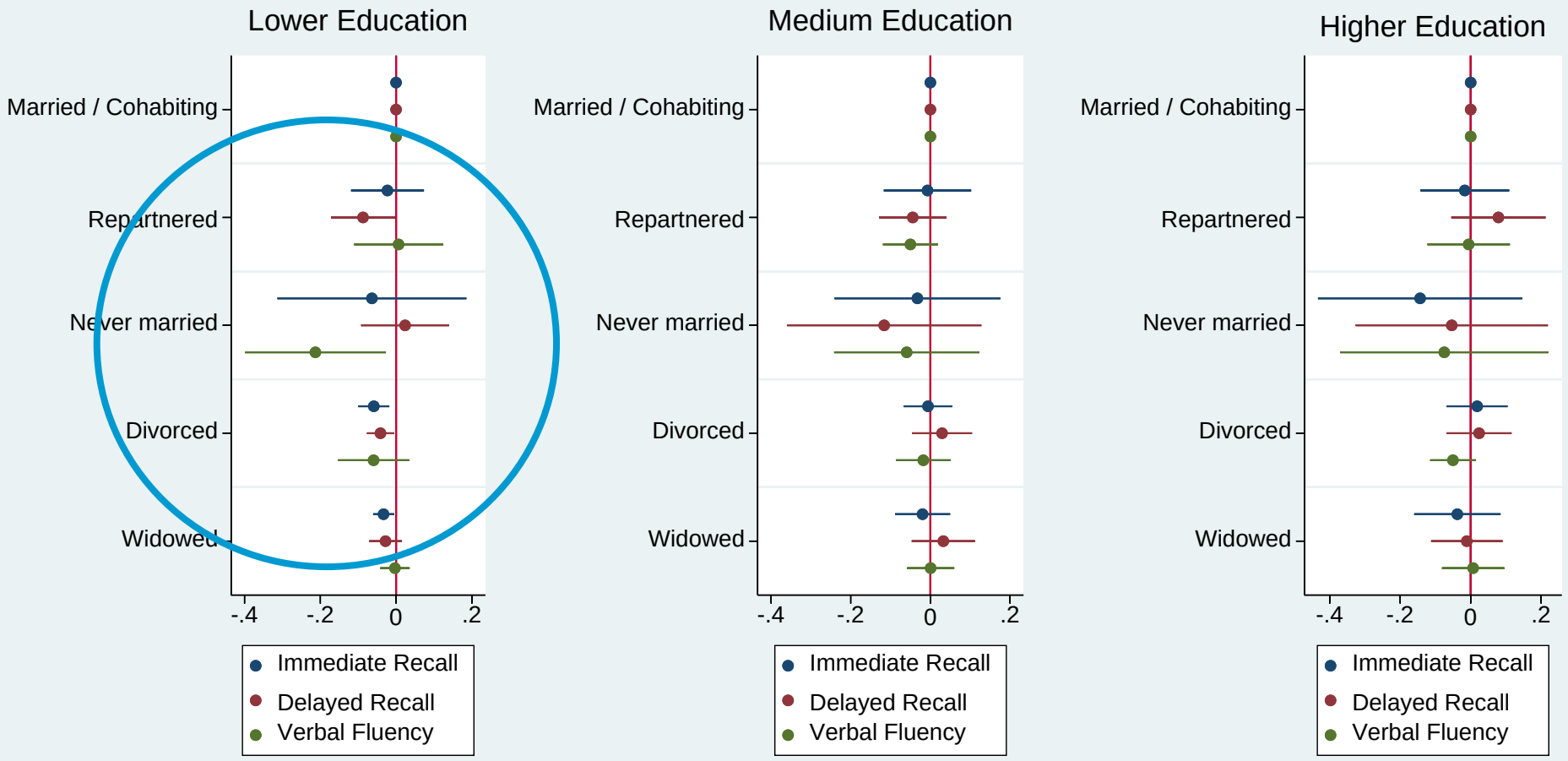
Include economic resources or social integration

Include social integration or economic resources

Include socio-demographic controls

Source: SHARE Release 7.0.0, Individuals aged 50 years or older. All dependent variables are z standardized. Control variables included. * p < 0.05, ** p < 0.01, *** p < 0.001.

# Stratified Effects?
# Separate Models by Education




Source: SHARE Release 7.0.0, Individuals aged 50 years or older. All dependent variables are z standardized. Control variables included. * p < 0.05, ** p < 0.01, *** p < 0.001.

# Summary & Discussion

**(1) Partnership matters for cognitive health**

- Widowhood & Divorce → Faster decline; Repartnered ≈ Married (H1✓)
- Single: Equal fast decline, but lower starting point (~~H2~~)

**(2) Mediation Mechanisms**

- Partnership effect disappears in all models (H3 ✓)
- Social integration & economic resources mediate partnership effect on memory

**(3) Education**

- Partnership effects only for lower-educated (H4 ✓)
- Less reserve, buffering factors matter more!
- Once more: Lower strata more vulnerable

# Data and Analytical Strategy - Detailed

## Data

- Survey of Health, Ageing and Retirement (SHARE): Waves 1, 2, 4, 5, 6, 7
- N=84,491 respondents, aged 50+ (plus partners if surveyed, too), observed Ø 3.3 times

## Measures

- 3 Dependent variables (z-standardized)
  - Memory: **10 word learning list**. Immediate (1) and delayed (2) recall
  - (3) Verbal fluency: **Name as many animals** as possible in 1 minute
- Partnership status: Married / cohabiting; Divorced / Separated; Widowed; Never married; Repartnered (=living together after widowhood or divorce, married or not)
- 4 Mediation mechanisms:
  - Social Integration: #Children, #Grandchildren, Gives/Receives Help
  - Cognitive stimulation: Educational and social activities at least weekly
  - Health behaviour: Drinking, Smoking, Weekly workout (moderate/vigorous)
  - Economic resources: Low income, homeownership
- Education: ISCED 1/2; 3/4; 5/6
- Controls: Age, physical health, employment, time

## Analytical Strategy

- Fixed Effects linear regression models
- Plus mediation mechanisms: (1) separate (2) simultaneous
- Plus moderating mechanisms: Education, separate models for three groups