

# Gender Differences in the Transition to Adulthood in France: Is There Convergence Over The Recent Period?

## Hazard models and sequence analysis

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# Motivation

- ◆ Educational attainment and employment are main predictors of the timing of union formation for males and females (Becker 1981, Oppenheimer 1988; Goldscheider and Waite 1986, Liefbroer and Corijn 1999, etc.)
- ◆ These studies reveal **differences** in the impact of educational level and enrolment and employment **for men and women**.
- ◆ Tremendous changes in educational attainment and employment for males and women in the last decades!
- ◆ The pattern of union formation was also subject to dramatic changes since the 1960s in most of the Western countries (diffusion of cohabitation).

# Hypotheses

- ◆ **School enrolment:** The impact is negative for both sexes, but bigger for women than for men. However in recent periods, the effect is decreasing for men and women.
- ◆ **Working status:** The effect matters more for men than for women, but the difference is less pronounced in recent periods than before.
- ◆ **Work experience:** The impact is bigger for men than for women, but the difference is decreasing recent periods. Moreover, the effect is weaker for both sexes in the most recent period.
- ◆ All in all, hypothesis of convergence between men's and women's transitions to adulthood

# Data

- ◆ Study of Family History 1999;
  - Birth cohorts after 1940;
  - Immigrants if they arrived before the age of 15 in metropolitan France;
  - 146 000 women and 96 000 men (85 % of women and 78 % of men experienced a first union);
- ◆ Follow from 15th birthday to the time of event; right-censor by the 1st of January 1999 or by their 40th birthday;

# Method

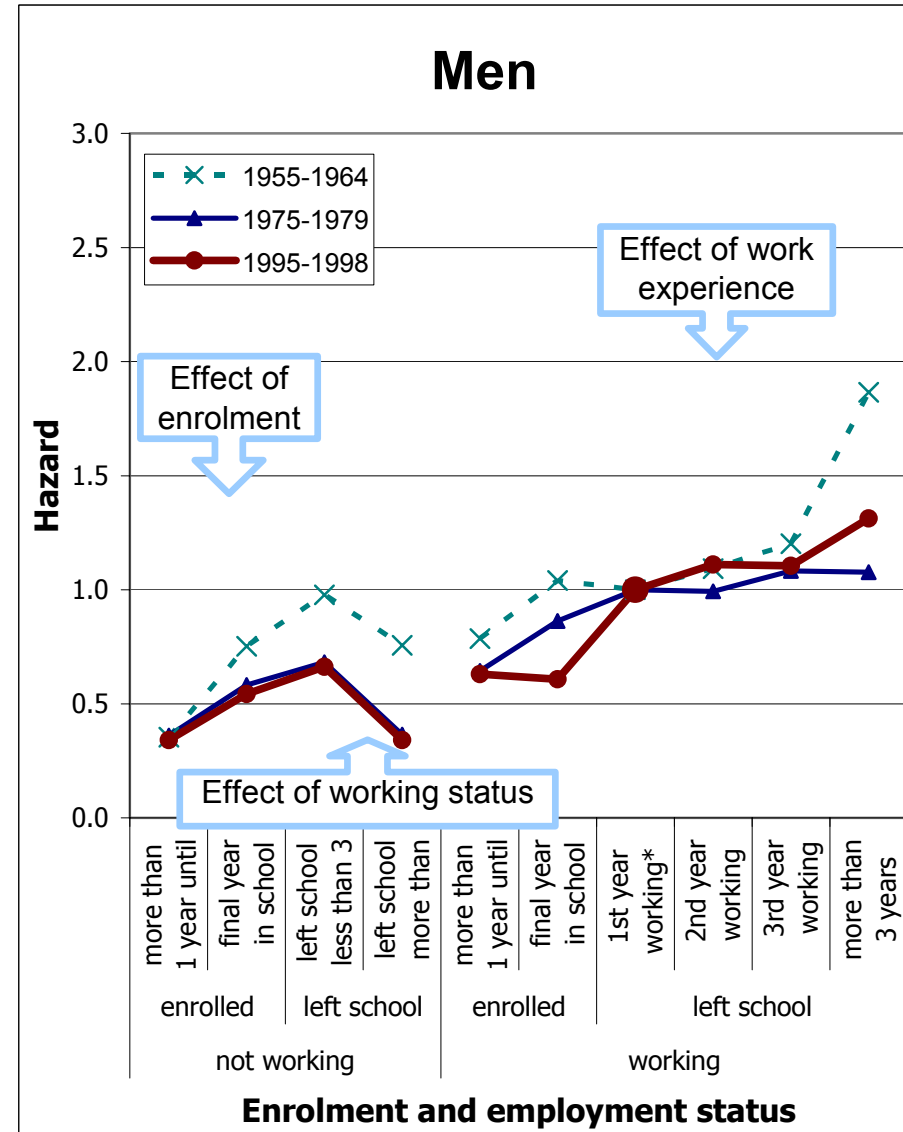
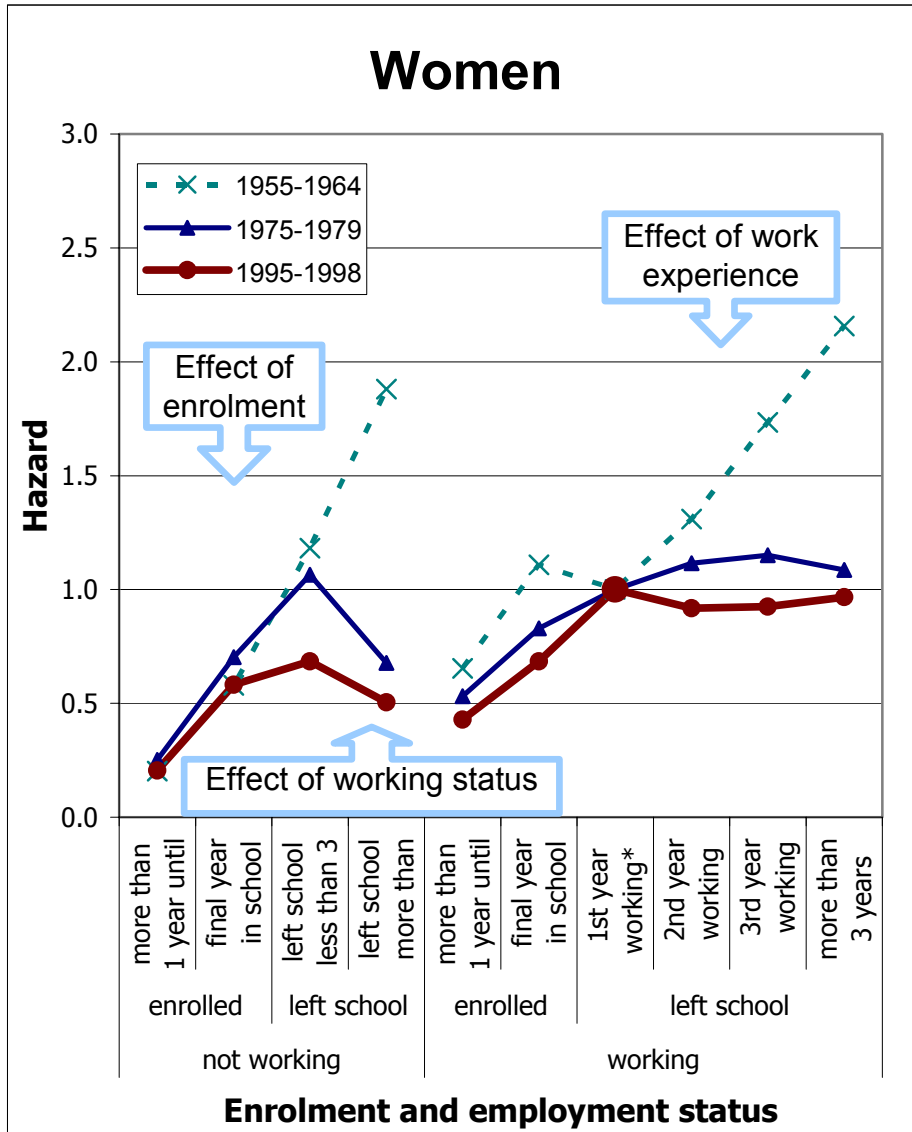
## ◆ Piecewise-constant exponential model

- Covariates: Age, number of siblings, profession of father, educational level, enrolment X employment status, pregnancy, calendar period;
- Separate models for men and women
- Focus on the **forces** causing the transitions

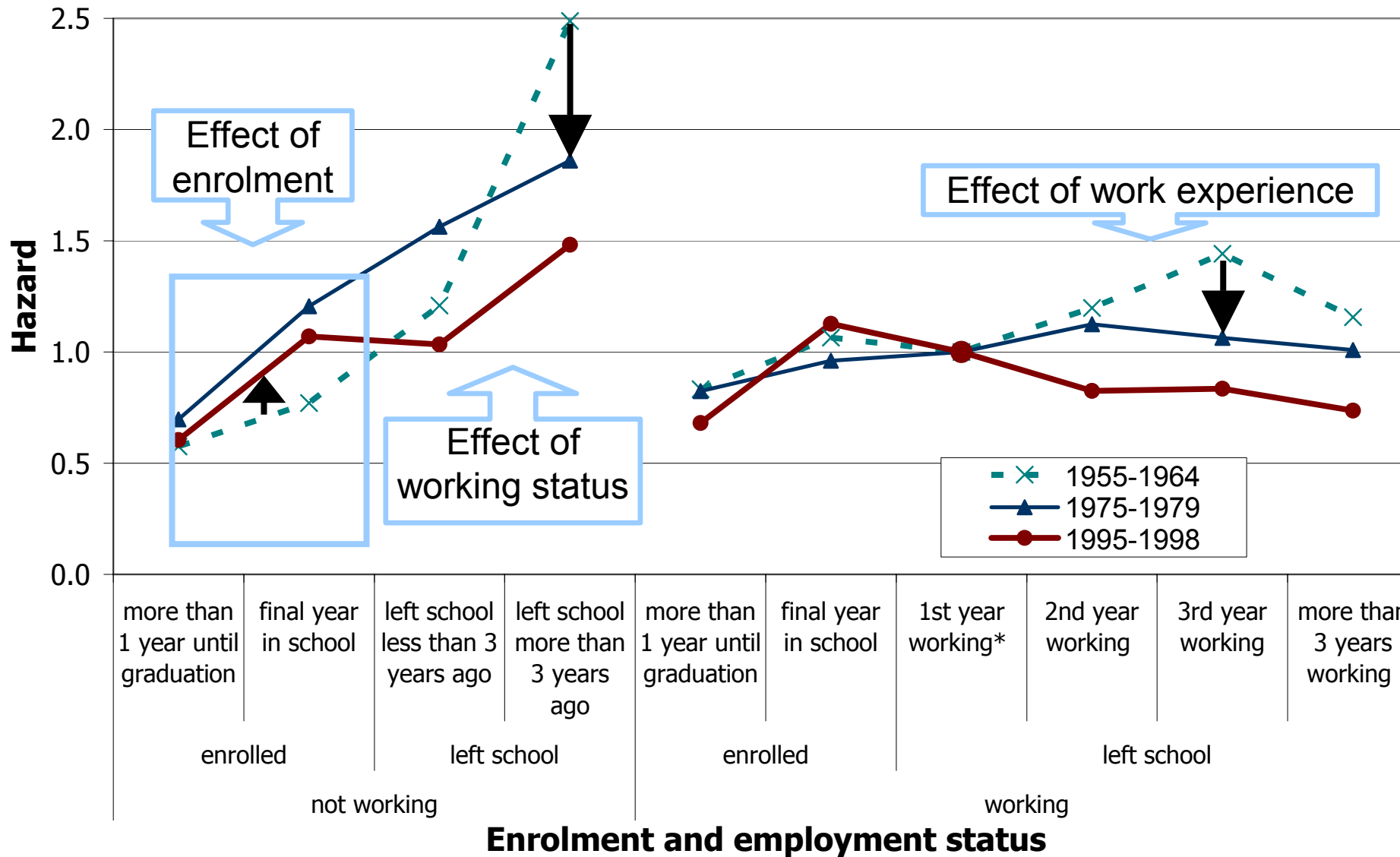
## ◆ Sequence analysis

- Descriptive analysis based on comparisons between the dates of events (pairs of events)
- Trends in the contrast between Men and women
- Focus on the **actual differences** in transitions

# Results: Positive effect of working status on union formation increasing for men and women in the most recent period

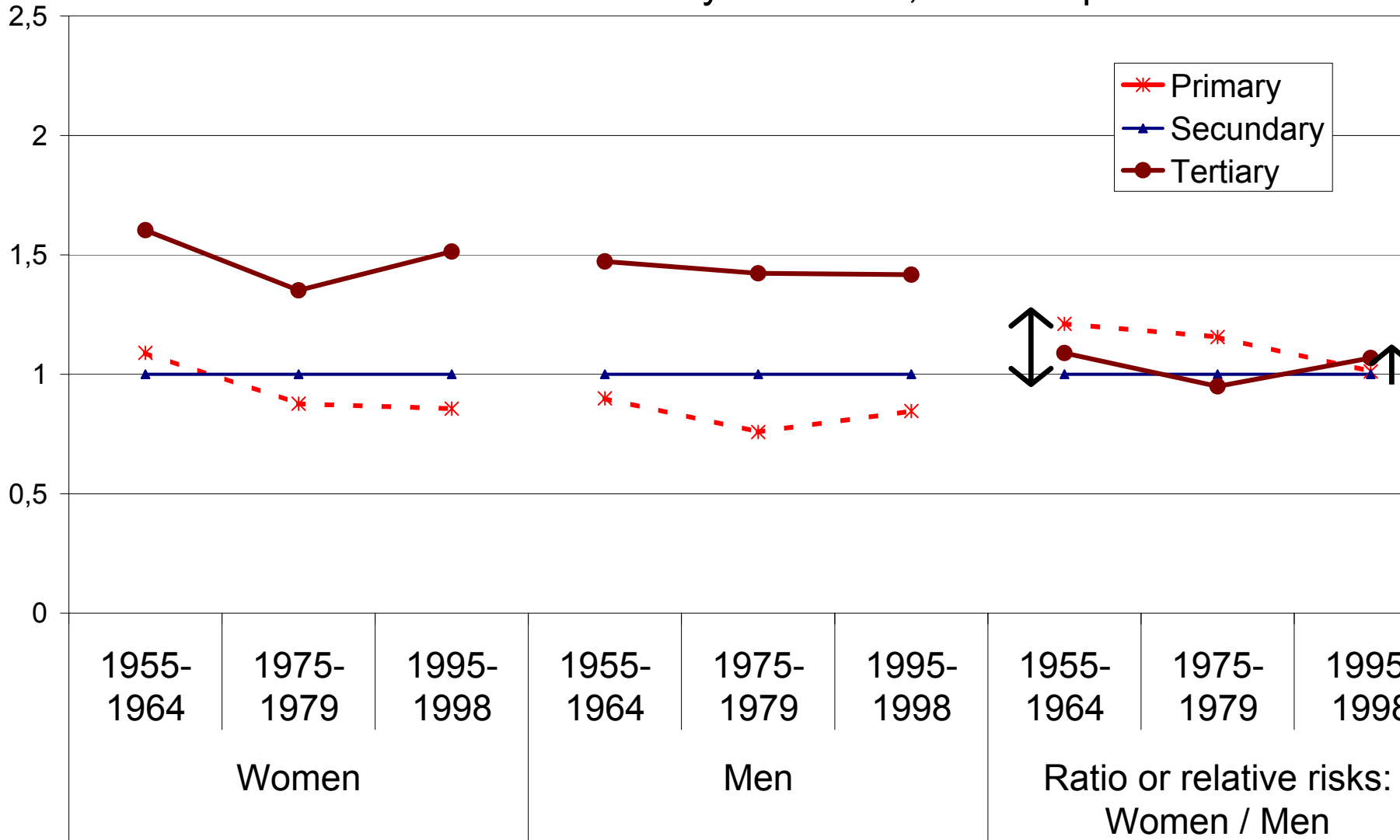


# Ratios of union relative risks, women vs men: The convergence hypothesis is confirmed



# Ratios of union relative risks by education, women vs men: The convergence hypothesis is also confirmed

Union relative risks by education, sex and period



# Sequence analysis

## ◆ Two questions

- Are men's and women's sequences converging?
- Are social differences between men and between women converging?

## ◆ The events

- End of studies (S) and First job (W)
- First couple (C), first marriage (M) and first child (B)
- More than three years duration to identify separated events:  $S \ll C$ ,  $W \ll C$ ,  $C \ll B$

# Sequence analysis

- ◆ **Three main groups of events**
  - End of studies and first job
  - Entry into union (marriage, child)
  - First child (union, marriage)
- ◆ **Ordering of sequences**
  - End of studies and first job
  - First union, first marriage and first child
  - End of studies, first work and first union
- ◆ **Social differences**
  - Trends by level of education

# Method

## ◆ Graphs with odds ratios

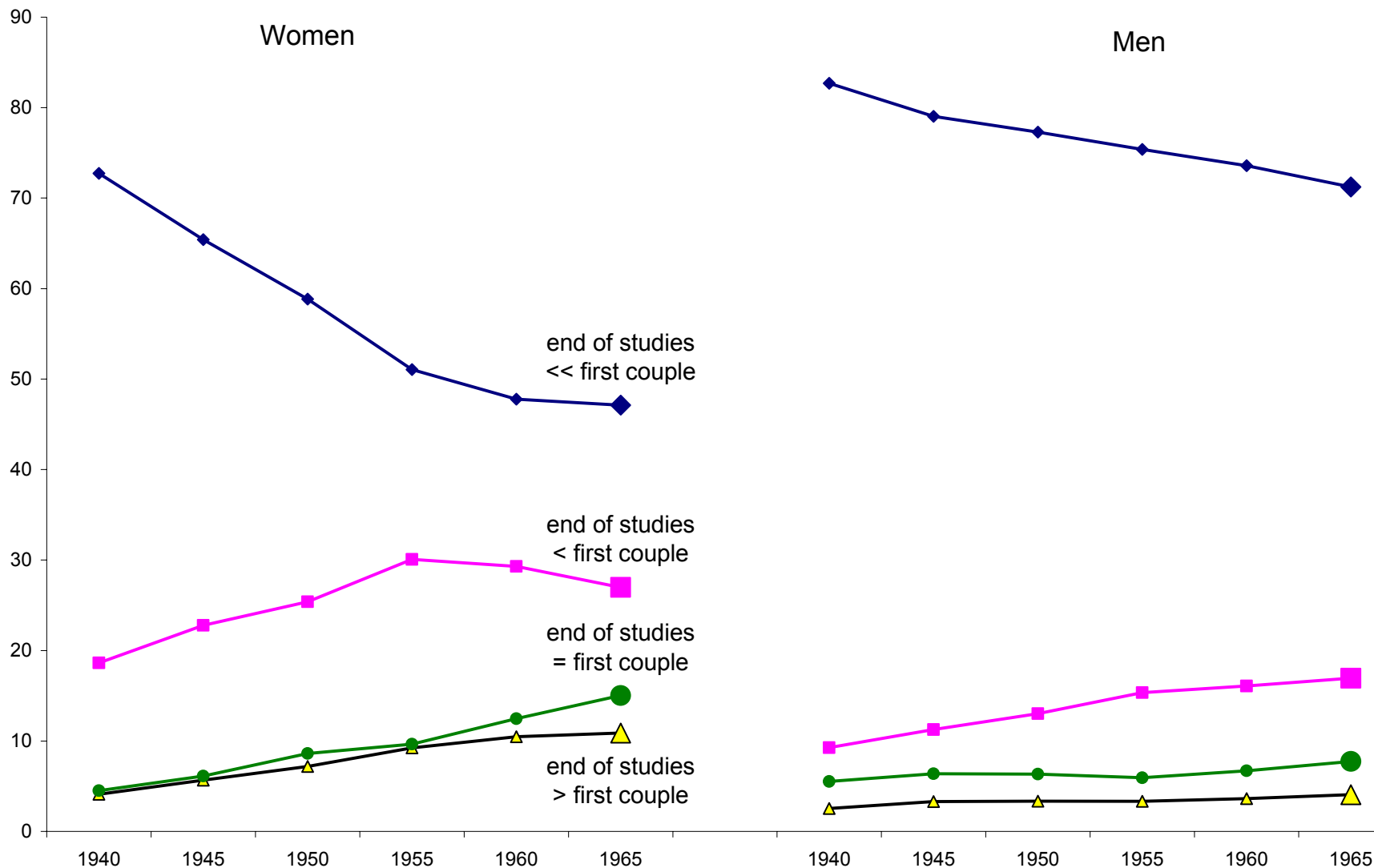
- Overall trends of total frequency and differences between men and women
- Frequency on the y axis
- Difference between men and women on the x axis
- Cohorts are ordered, by 5-year groups
- One line for each pair of events
- Social differences: one line by level of education

## ◆ How to read the graph?

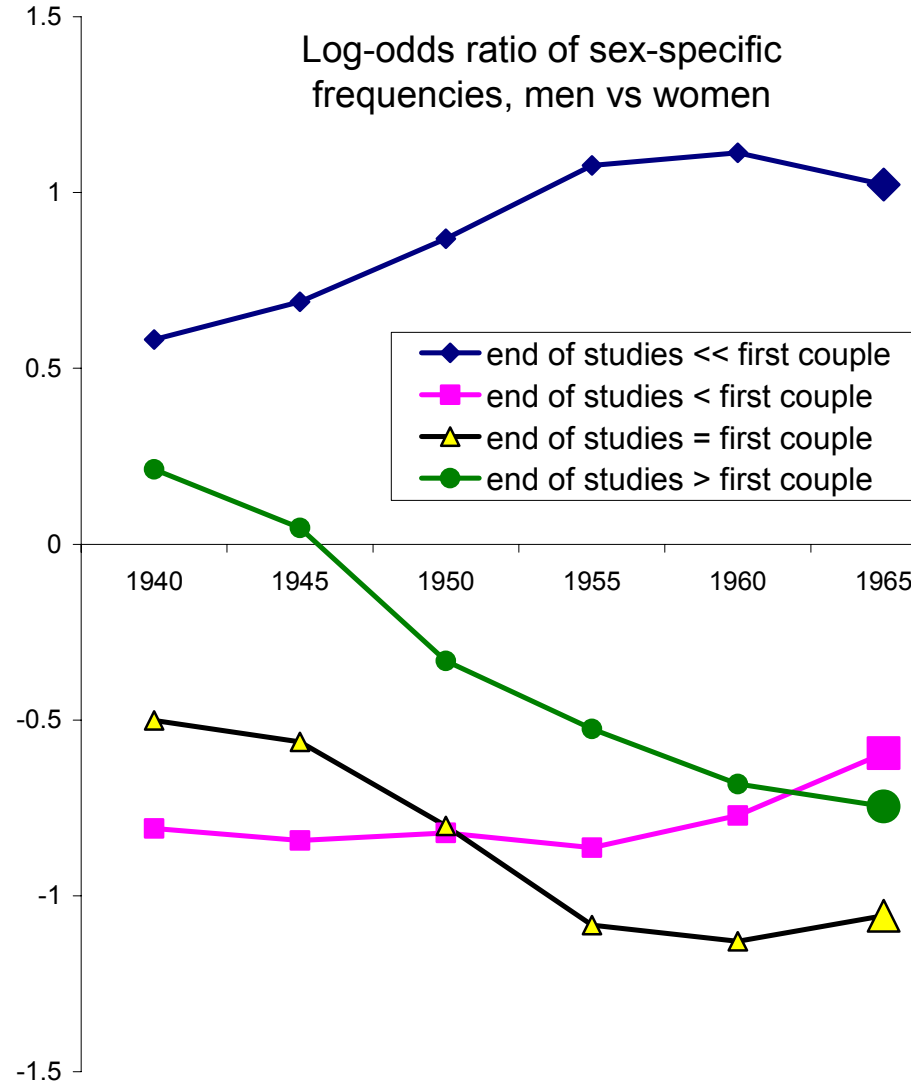
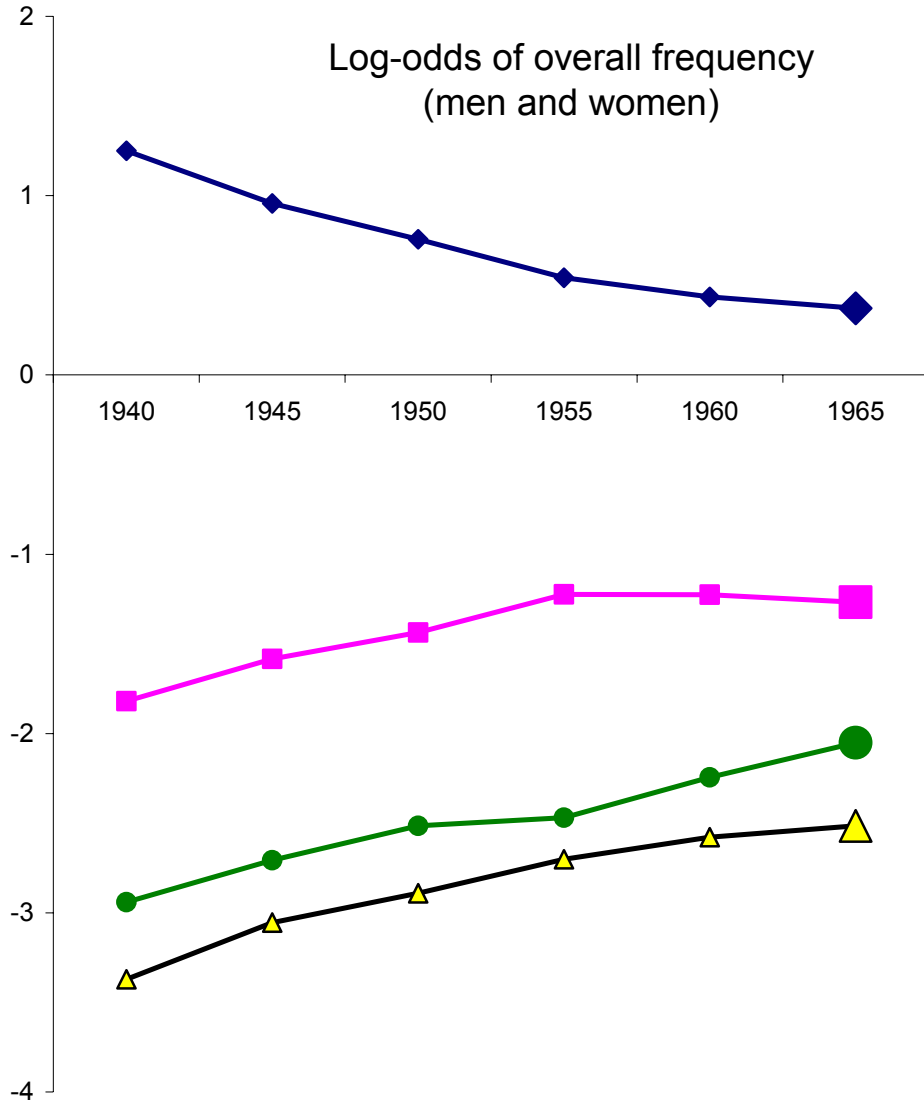
- The sequence “end of studies – first union” as an example

# Basic data: distribution of sequences by cohort, men on the left, women on the right

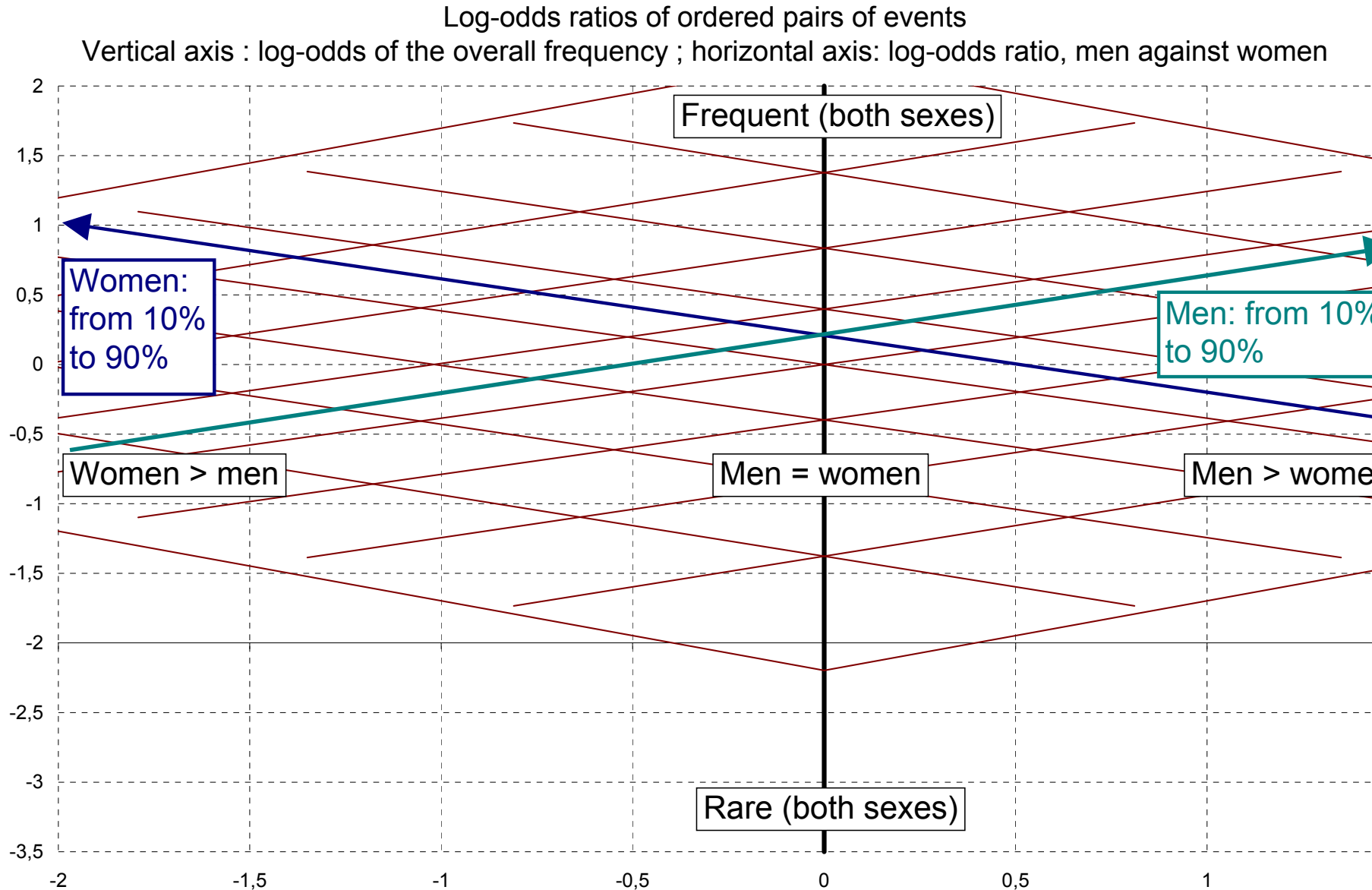
Frequency of sequences with end of studies (S) and first couple (C), by cohort.  
Men and women (%)



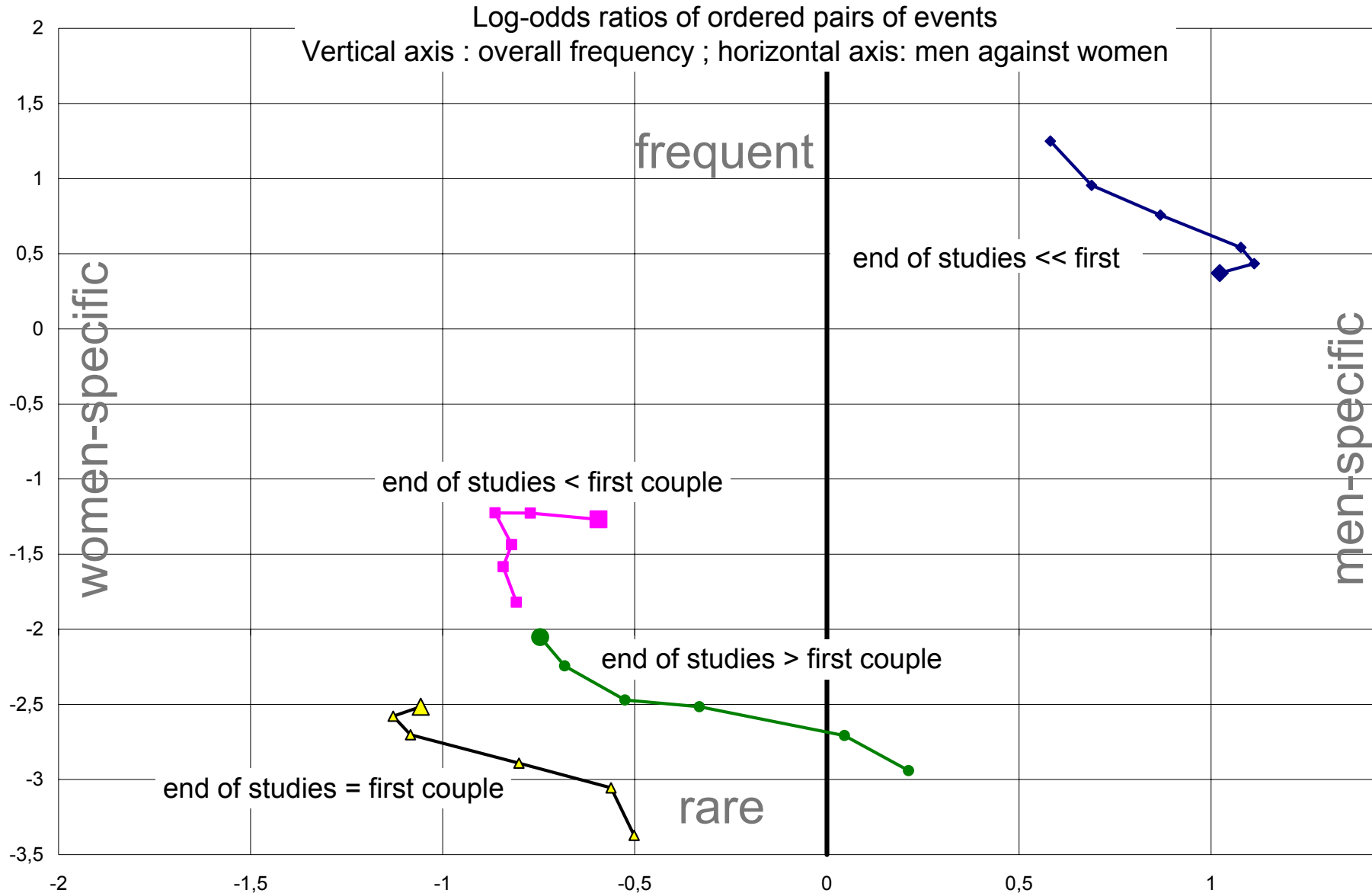
# Working data: overall distribution of sequences by cohort on the left, difference between men and women on the right



# Working graphs: overall frequency on the vertical axis, contrast between men and women on the horizontal axis



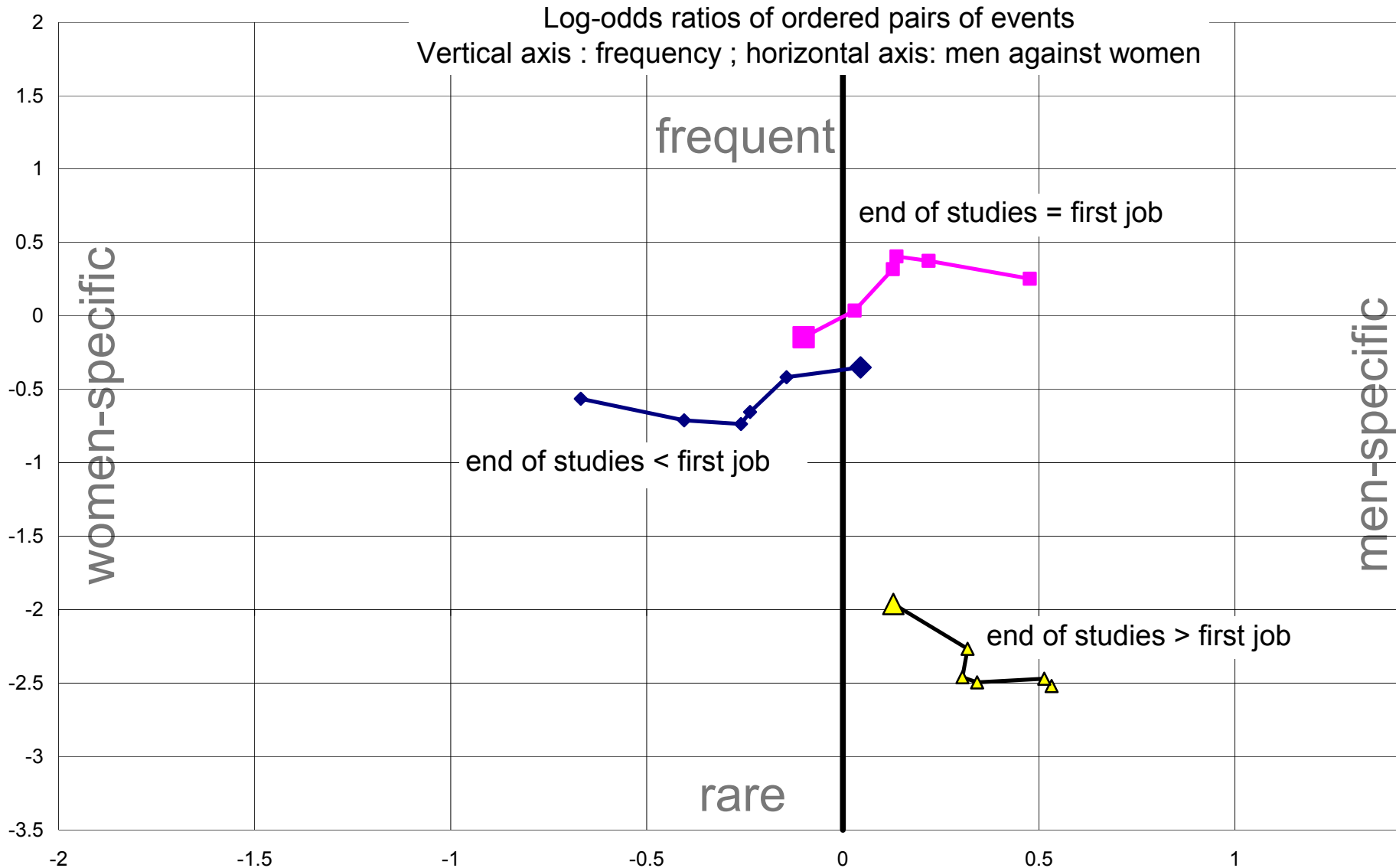
# Working graph: End of studies and couple: the increase in differences between men and women is made visible



# Sequences

- ◆ End of studies – first job
- ◆ First union, first marriage and first child
- ◆ End of studies, first work and first union

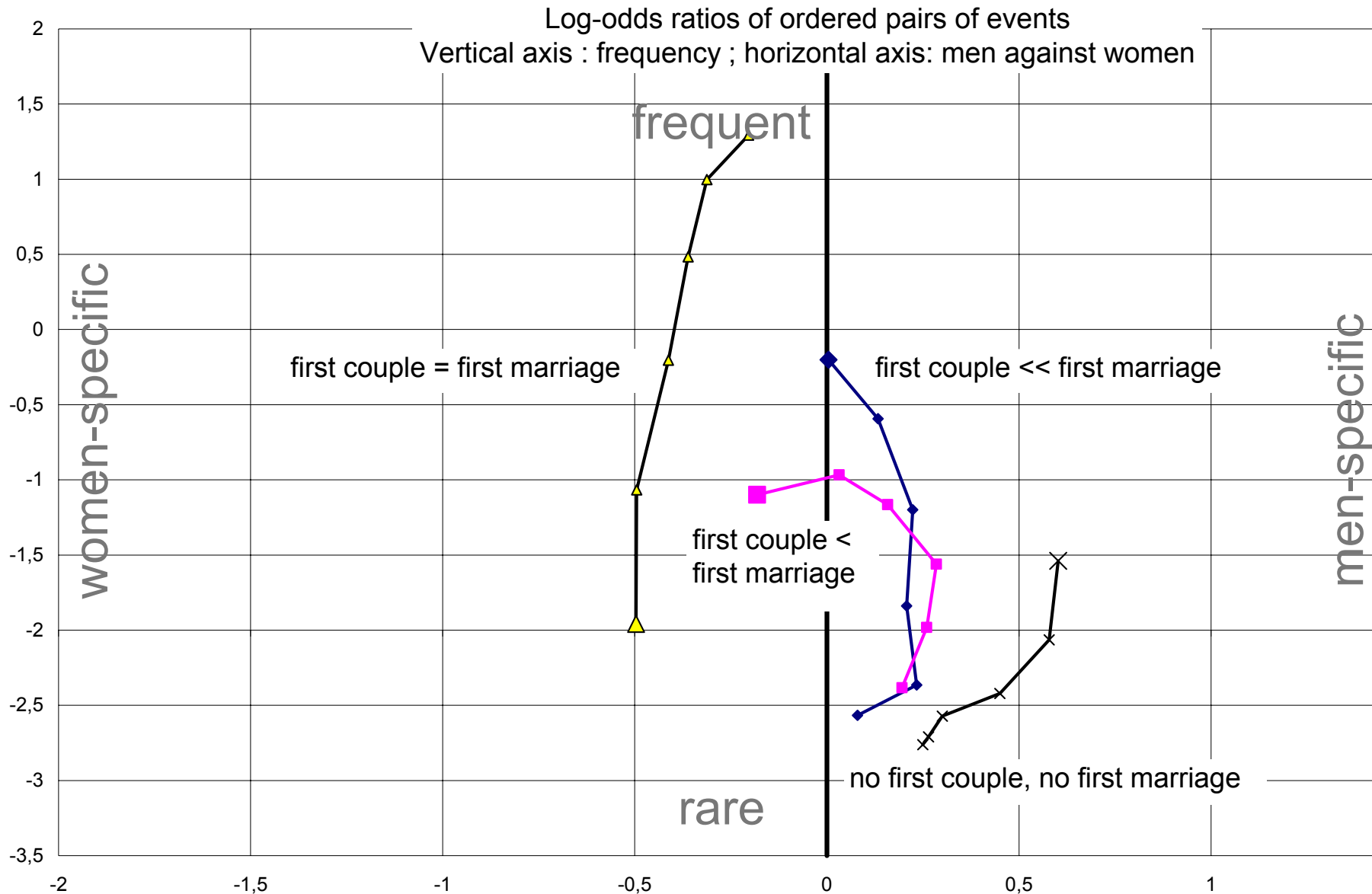
# End of studies and work: strong convergence between men and women



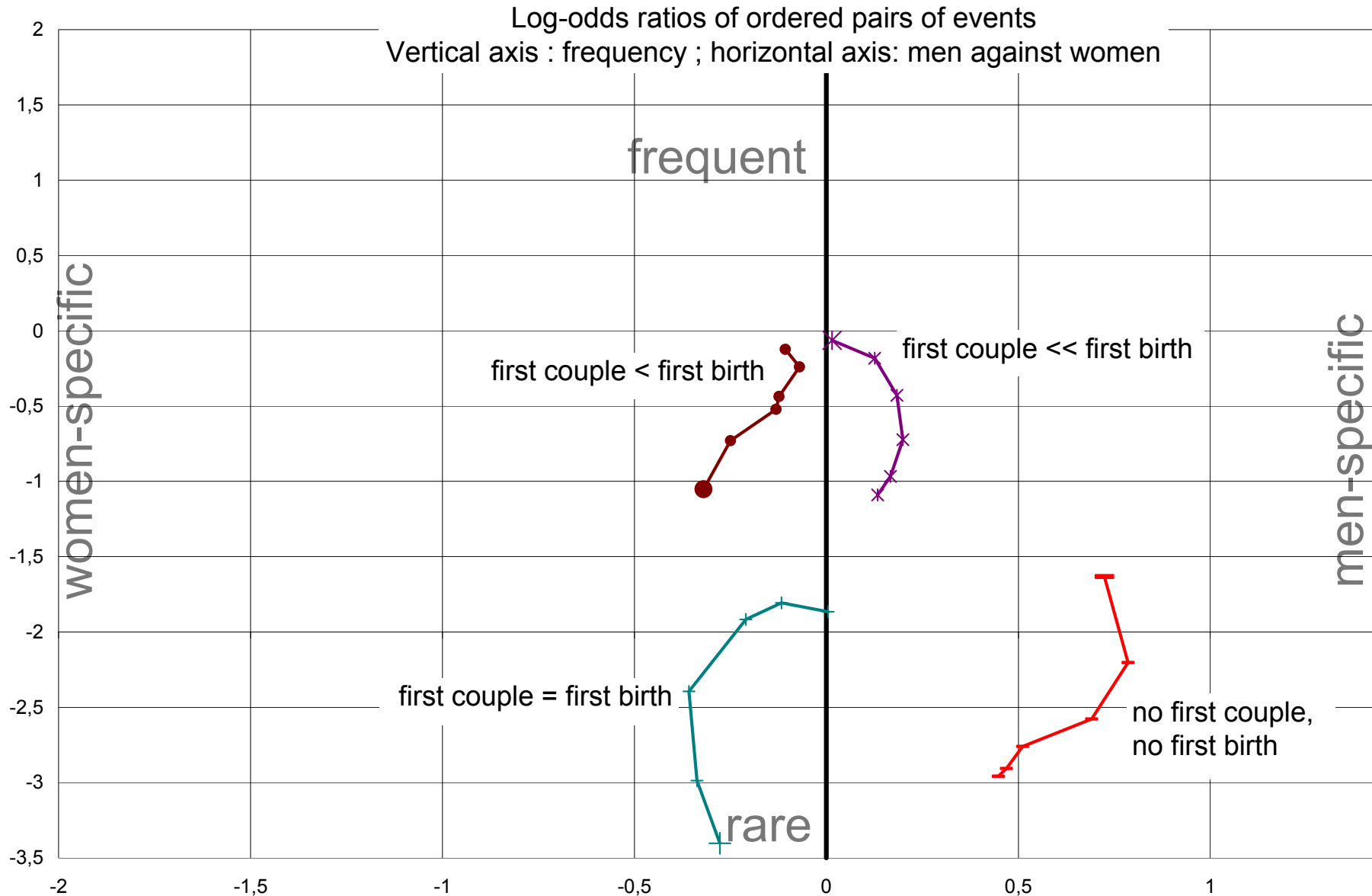
# Sequences

- ◆ End of studies – first job
- ◆ **First union, first marriage and first child**
- ◆ End of studies, first work and first union

# Couple and marriage: cohabitation is spreading, with no dramatic changes in the gender difference



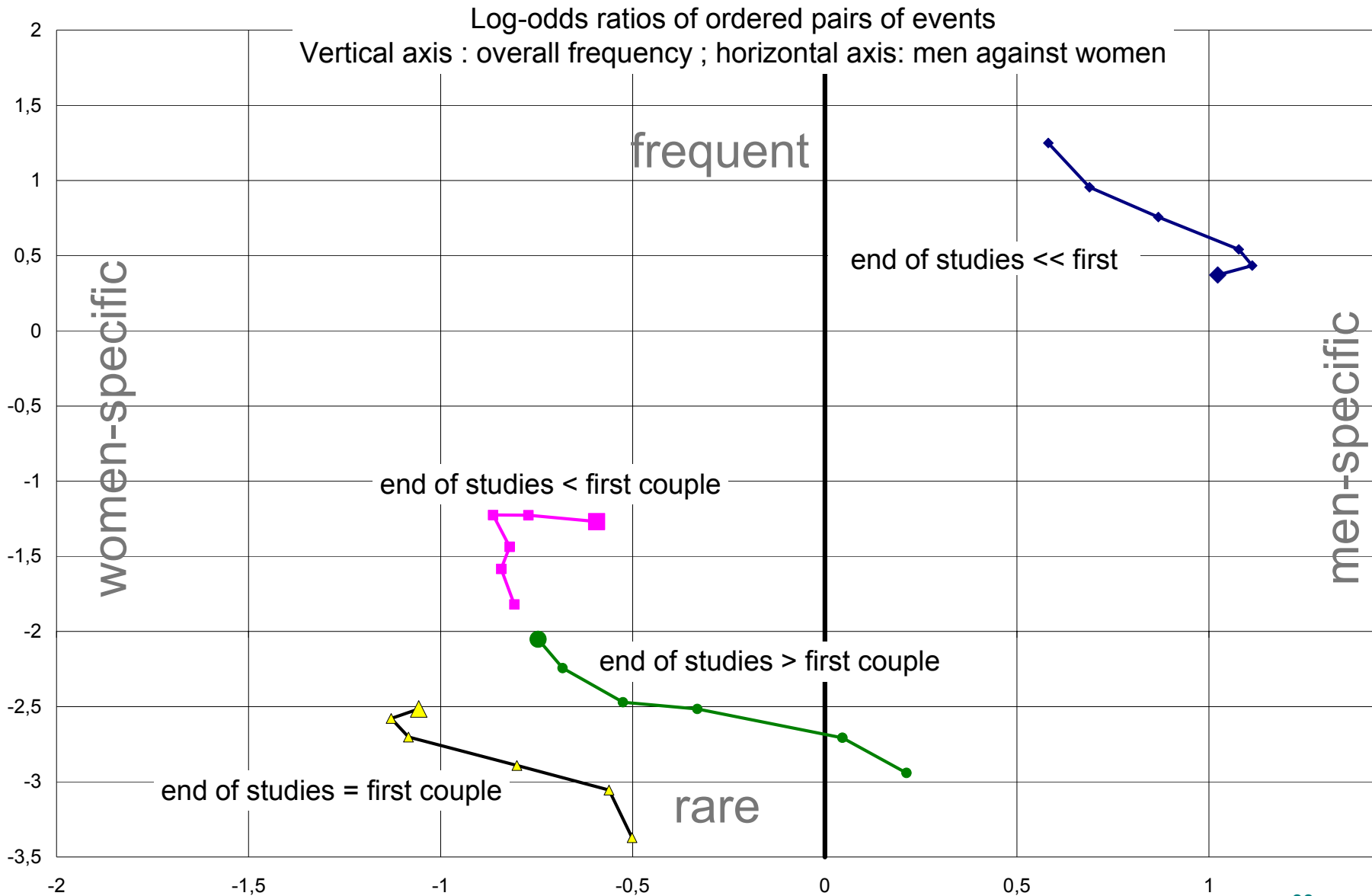
# Couple and birth: increasing period before the first child no dramatic changes in the sex difference



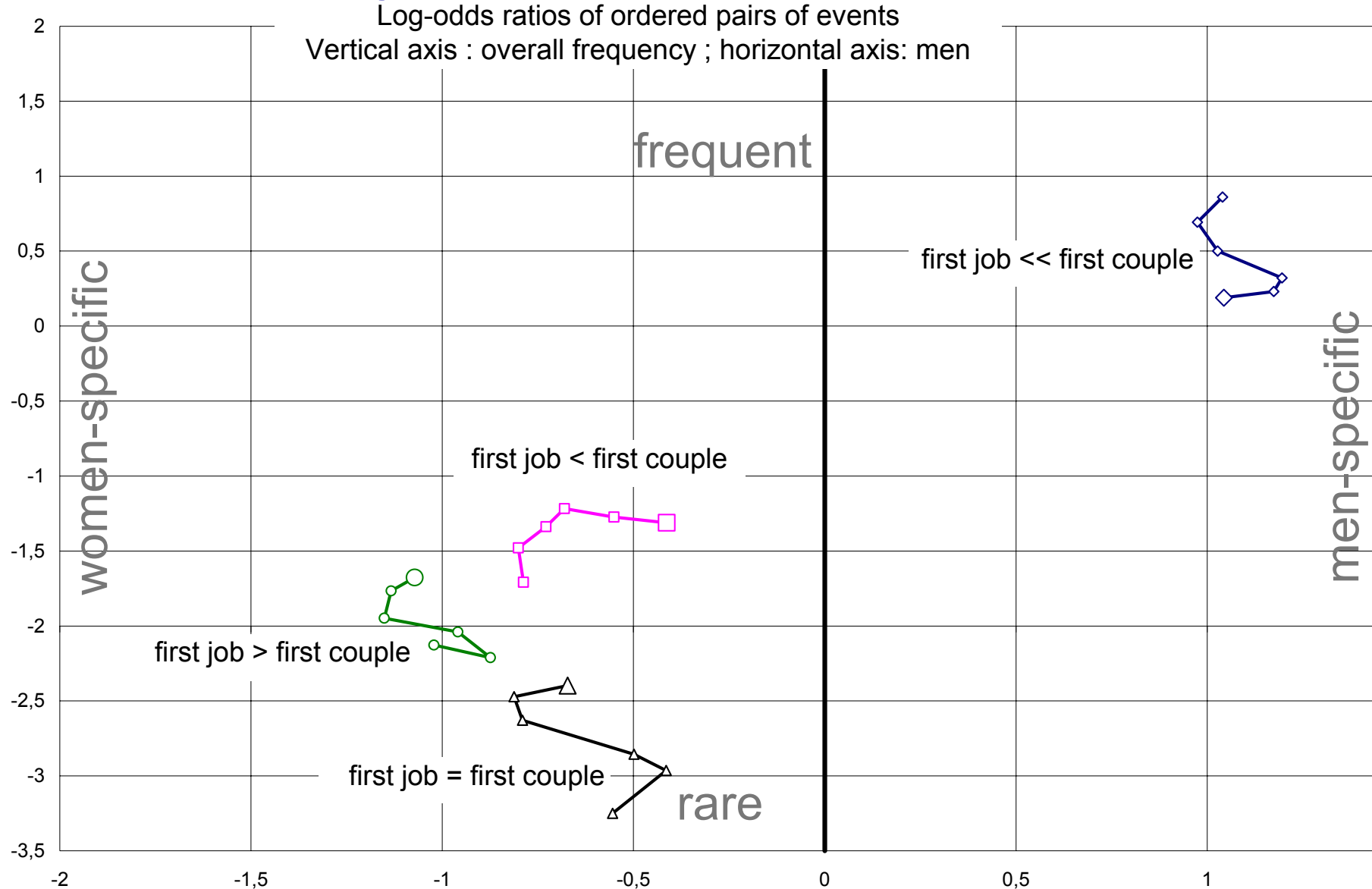
# Sequences

- ◆ End of studies – first job
- ◆ First union, first marriage and first child
- ◆ **End of studies, first work and first union**

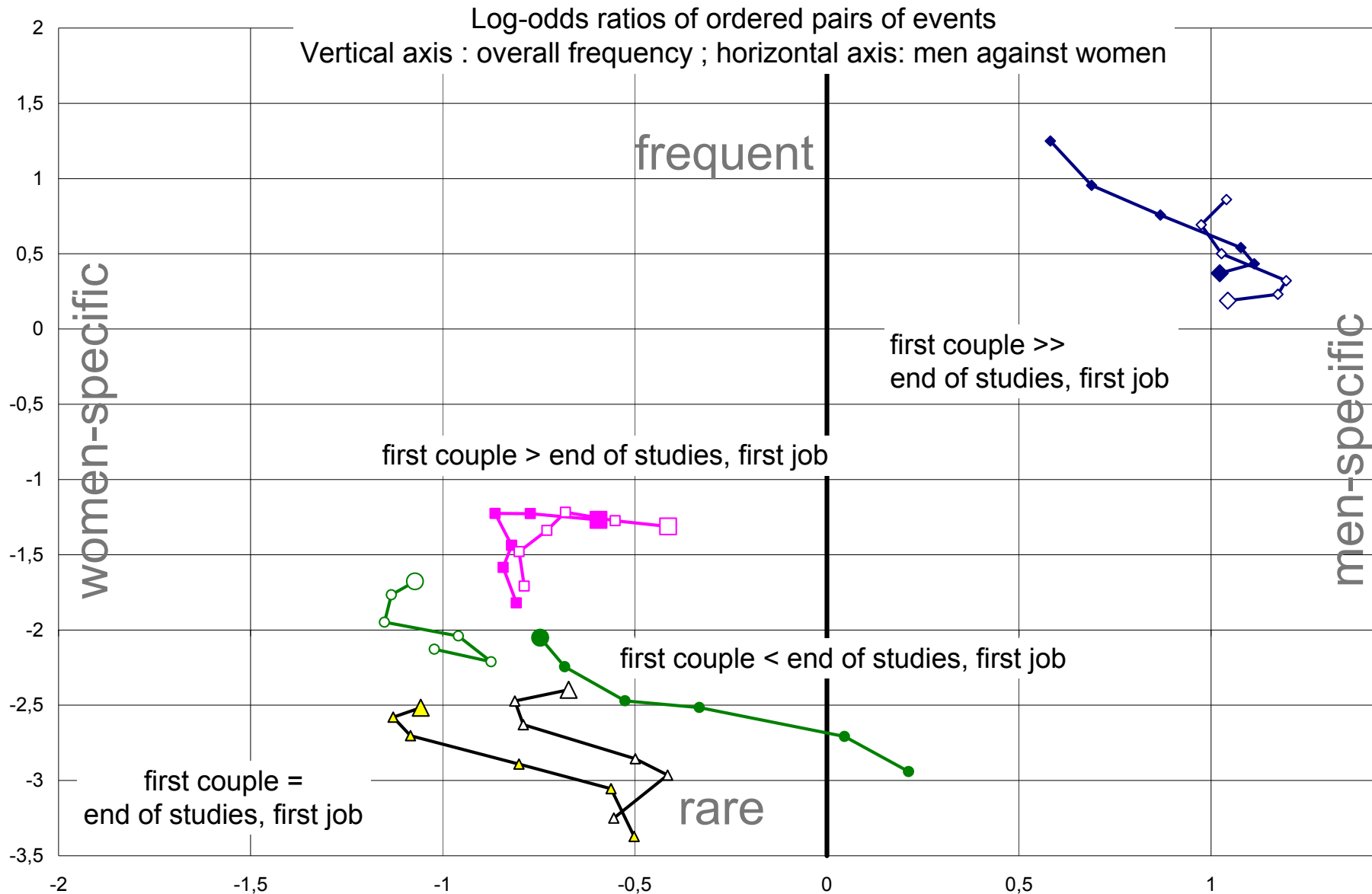
# End of studies and couple: women are more and more entering their first union before the end of studies, men are not; increasing differences between men and women



# Work and couple: women are more and more entering their first union before their first job, men are not; increasing differences between men and women



# End of studies (S), work (W) and couple (C): increasing differences between men and women

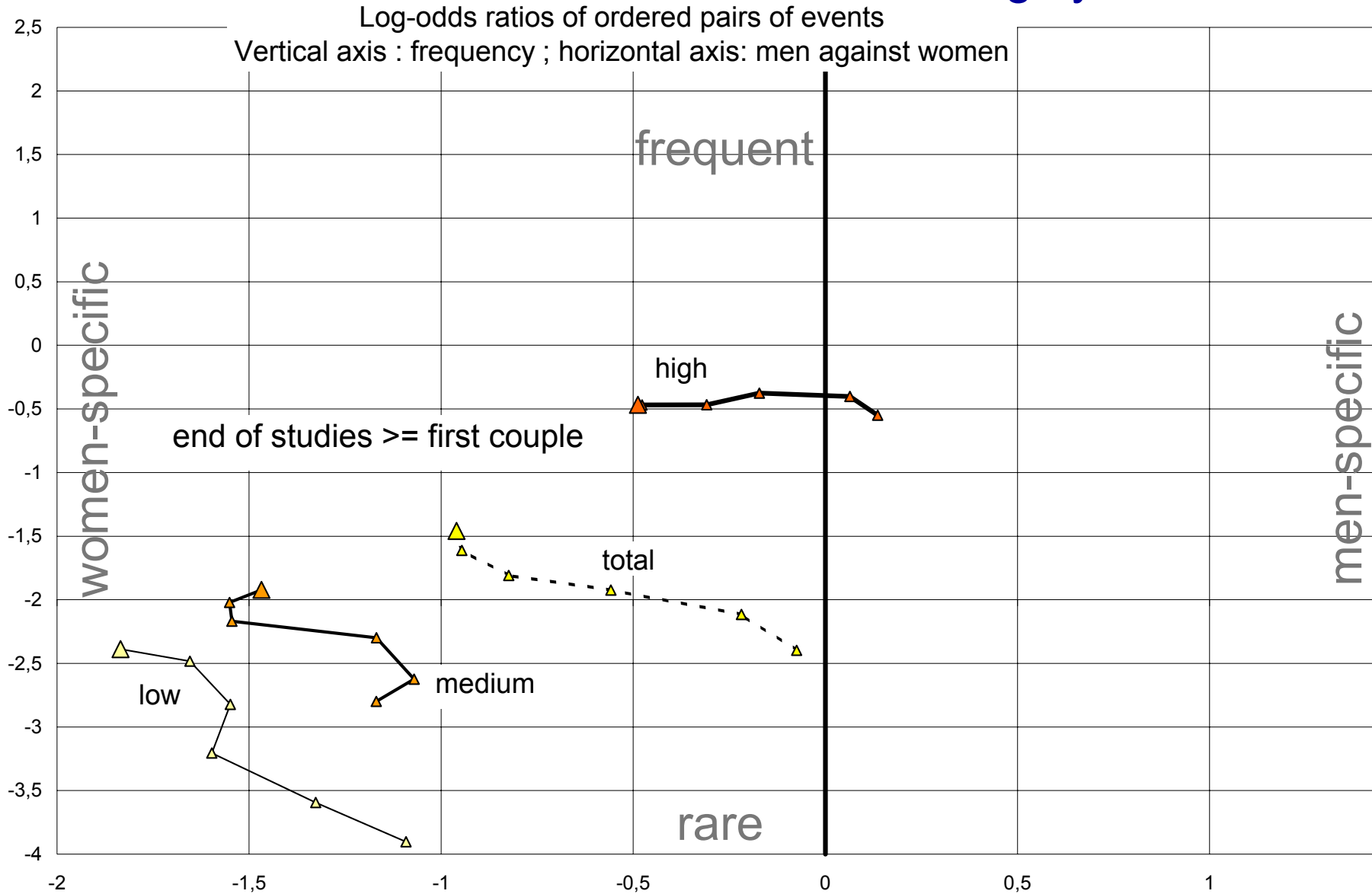


# Social differences

- ◆ End of studies and first couple: increasing differences between men and women when education is taken into account
  - Entering a union before the end of studies is more and more women-specific
  - increasing sex difference among highly educated young adults: highly educated men more often delay their first union, despite the increasing age at end of studies; highly educated women don't
  - Declining social differences among young men and among young women

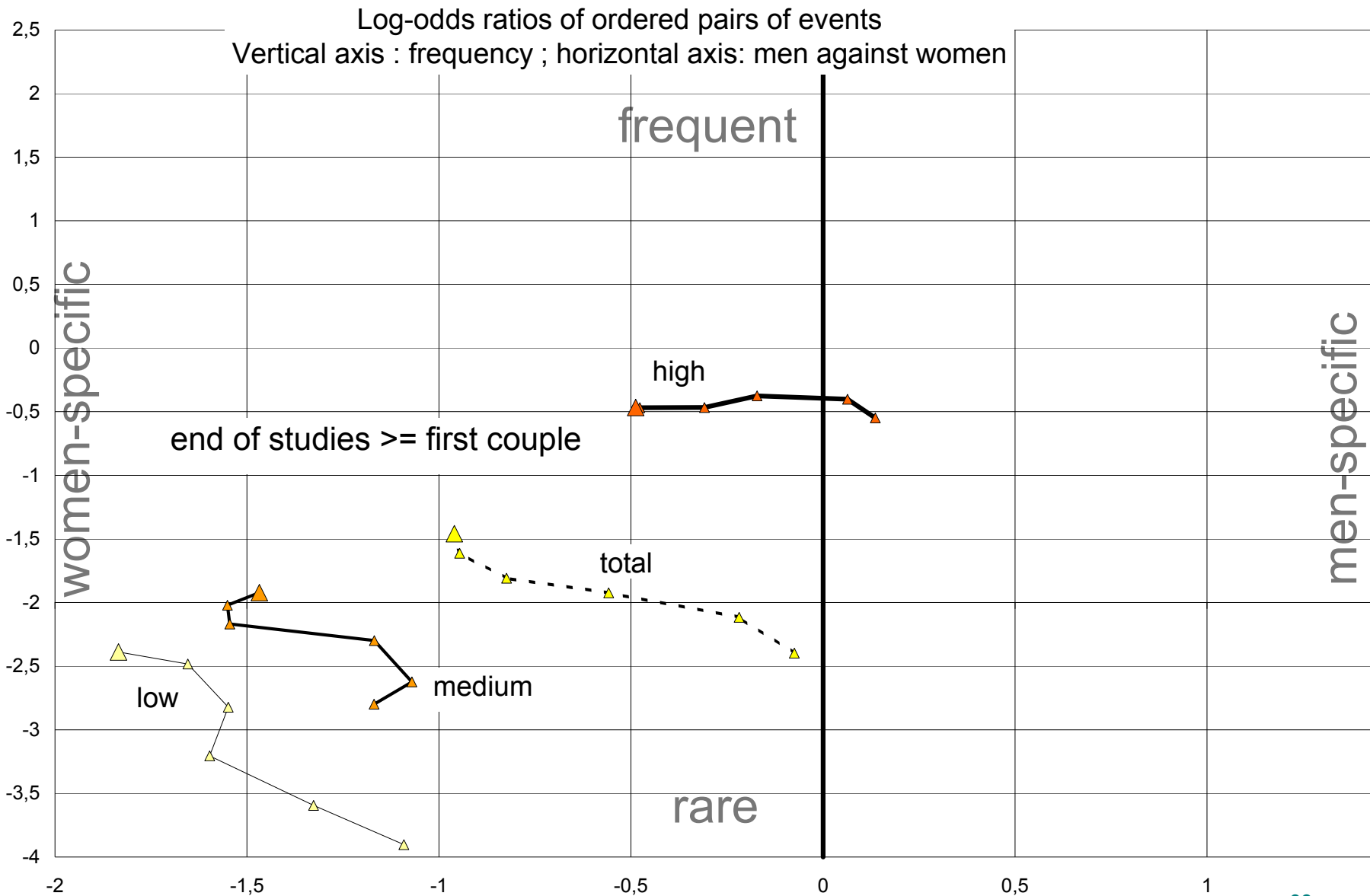
# In union before the end of studies, by education and cohort:

Overall trends in dotted line; one line per level of education, thin lines for low educated, bold lines for highly educated



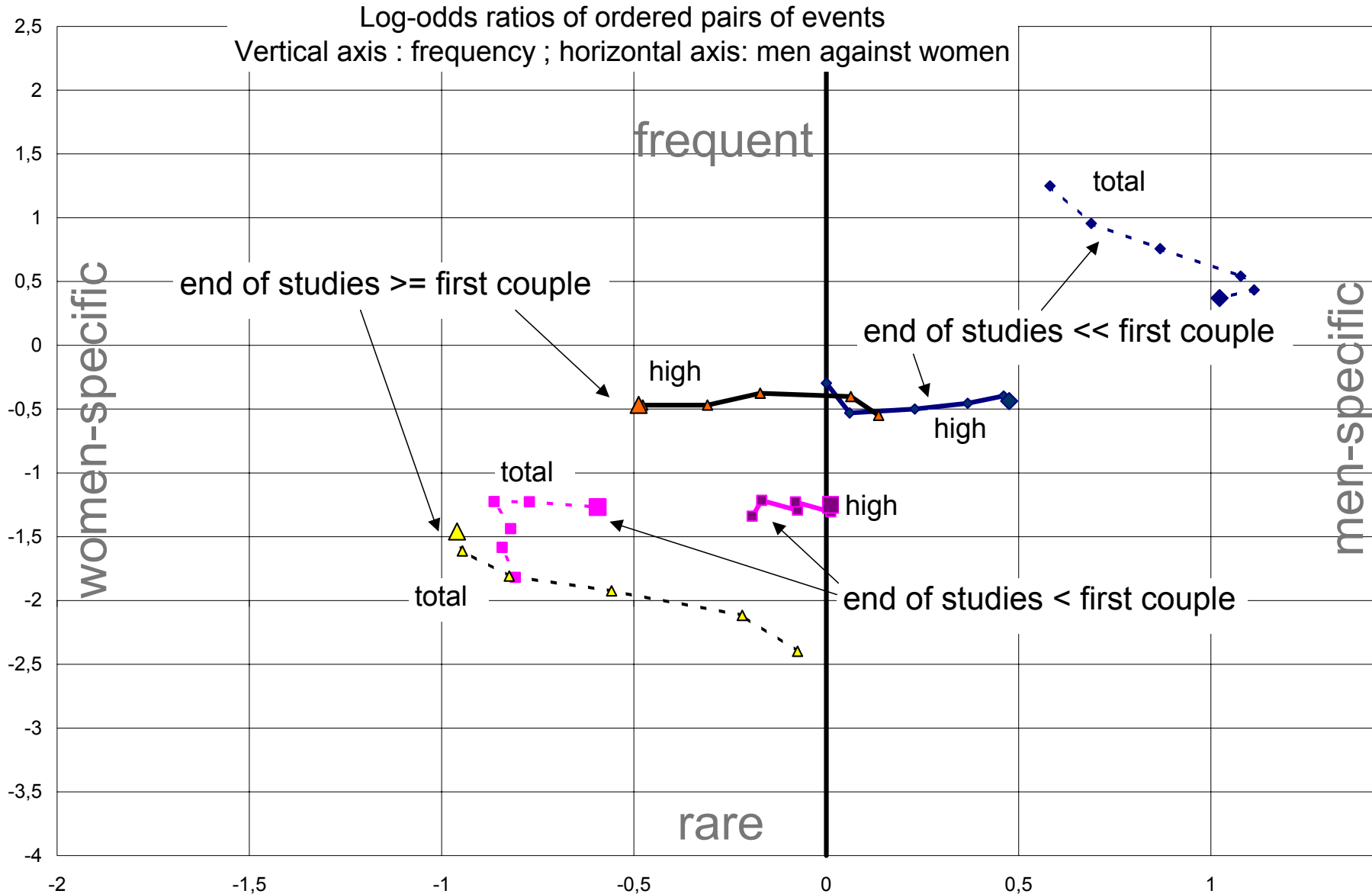


## 2) ... while entering a union before ending the studies becomes more frequent and more female specific



# End of studies and couple, by education and cohort

## 3) Divergence between highly educated men and women



# Conclusions (1)

- ◆ **Increasing differences between men and women**
  - Women more and more enter a union before ending their studies
  - This is less true for men, whose transitions remain more separated: end of studies and first job, and then first union
- ◆ **The sequences are more diverse among women than among men, and the difference is increasing**
  - The change in the timing leads to increasing overlapping of transitions for highly educated women, not for men

## Conclusions (2)

- ◆ Sequence analysis and hazard models are complementary
  - Changes in the sequences come from changes in the hazards, but also from changes in the structure of exposures (same age at end of studies, different ages at first union)
  - As age-schedules are different by sex and level of education, the trends in gender differences in the sequences are not straightforward

# Thank you!

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# References

- ◆ The first part of this paper, presenting results from the hazard models, is to be published in the *European Journal of Population*.  
A preliminary version is available as a VID working paper (01 / 2007).  
[http://www.oeaw.ac.at/vid/download/WP2007\\_01.pdf](http://www.oeaw.ac.at/vid/download/WP2007_01.pdf)
- ◆ The second part of this paper, on sequence analysis, is still to be written