Diversity in Economics: 
Gender Differences in the Scientific Production

Giulia Zacchia
“field of economics is behind others in its progress on diversity concerns”
Amanda Bayer and Cecilia Elena Rouse (2016)

Which diversity?

Heterogeneity of researchers

Pluralism of research interests

Diversity in economics profession

Trends in gender differences in publication topics and habits of Italian academic economists in the last two decades
Why Italy?

- Persistent Vertical Segregation (in the last 14 years)
  - Less than 18% of full professors are women
  - More than 45% are assistant professors

- The 2010 reform of the university system put stronger *emphasis on standardized bibliometric methods* mainly in economics (research quality/impact = citations)

- Pluralism key element of economic thought in Italy - since World War II development of plurality of schools of economic thought
Why Italy?

A large scale experiment
(804 profs - 24% women 12,931 articles in Econlit 1991-2014 - 18% women)

_to test how:_

- social context, mainly in terms of institutional changes, can affect the development of economic thought
  
  *Is it pluralism at risk?*

- if women tend to be more exposed to those phenomena. Which are the consequences in terms of research field concentration and academic productivity differences

*Homologation?*
Main results
**Trend: Homologation**

Pottage’s (1994) concept of “homologation” that embodies gender dimension since homologation denies the possibility of a specific feminine culture.

- Women have begun **writing more** in research fields where they were previously **under-represented**: economic history (N) - mathematical and quantitative methods (C)
- **Women changed** the research preferences over the time more than their men colleagues
- The **degree of gender convergence** in research **increases** along the **hierarchical structure**: homologation is stronger for tenured professors than for PhD students
- Tendency among women to **reduce their publications in less mainstream fields** at a faster pace than their male colleagues
Declining Trend for Publications in Less Mainstream Research Fields

1) History of Economic Thought

![Graph showing declining trend for publications in less mainstream research fields.](image-url)
Declining Trend for Publications in Less Mainstream Research Fields

2) Heterodox Approaches

B5 - Current Heterodox Approaches
B50 - General; B51 - Socialist; Marxian; Sraffian; B52 - Institutional; Evolutionary; B53 - Austrian; B54 – Feminist Economics; B59 – Other; E11 - Marxian; Sraffian;
How to Measure the Gender Homologation Effect?

Duncan Segregation Index (1955)

\[ S^f = \frac{1}{2} \sum_{i=1}^{n} |m_i - f_i| \]

proportion of women (men) who have to “trade” fields with a man (woman) for both sexes to be represented in all fields in proportion to their representation in the whole system.

- 0% full homologation
- 100% full segregation
Evolution of the Gender Homologation Effect
Hypothesis: the distribution of women (or men) across fields is identical to the distribution of research fields in the top 10 economic journals – Is there a convergence toward a univocal concept of perceived excellence in research?

- highest bibliometric indexes (more visible in the evaluation process)
- higher concentration in few research fields – less heterogeneity

\[ Sg = \frac{1}{2} \sum_{i=1}^{n} |g_i - t_i| \]
Direction of Convergence: Toward a Univocal Profile of «Top Economist»?
Less Pluralism

Double converge path for Italian academic economists in the last decades:

- **women and men** tend to research on the **same fields**
- concurrently they tend to **converge** to a univocal concept of **excellence in research** – articles in the top 10 economic journals

The double convergence path implies a consistent **reduction in diversity** in economics, mainly identified with the concept of pluralism of research.
Conclusions

Rules on “excellence” and “quality” tend:

- to reinforce gender discrimination and
- to shape (Italian) economists’ research activity - favoring the majority view (i.e. the mainstream)

The Italian case shows that:

- preservation of pluralism should be an explicit goal of the assessment and recruitment procedures

- awareness of the gender impact of institutional changes in order to anticipate their systemic and potential effects
Conclusions

“do we appreciate being included, under these conditions after millennia, in a world conceived by others?”

Carla Lonzi, 1970
Thank you!

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## Gender Homologation Effect

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Test $\chi^2$ $H_0$: distribution of men = distribution of women

$\chi^2 (18)=93.9^{***}$

$\chi^2 (18)=125.7^{***}$

$\chi^2 (18)=150.5^{***}$

$\chi^2 (18)=208.3^{***}$

$\chi^2 (18)=125.7^{***}$

Test $\chi^2$ $H_0$: distribution of women is the same in the five periods

$\chi^2 (72)=464.8^{***}$

Test $\chi^2$ $H_0$: distribution of men is the same in the five periods

$\chi^2 (72)=998.5^{***}$

Note: main research fields per period in bold

ersterisks denote level of significance $^{***}$ 1%

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**Gender Diversity in Economics**

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Top Journals Considered

We consider the first 10 economic journals ranked in Kalaitzidakis et al. (2011):

- American Economic Review;
- Quarterly Journal of Economics;
- Journal of Political Economy;
- Econometrica;
- Review of Economic Studies;
- Journal of Monetary Economics;
- Review of Economics and Statistics;
- Journal of Economic Perspectives;
- Journal of Economic Theory;
- The Economic Journal
Status Quo

- Under-representation of women in universities
- Misogyny - Alice Wu (dissertation University of California, Berkeley)
- More competitive environment imposed by the growing pressure for audit and evaluation of public spending on higher education and research;
- Increasing use of metrics and quantitative indicators on different aspect of research (mainly based on citations);
- “Field of economics is behind others in its progress on diversity concerns” Amanda Bayer and Cecilia Elena Rouse (2016)