



Conference

Gender in science – an obstacle or an advantage? Scientific careers and private lives

Institute for Social Studies of University of Warsaw,
Feminoteka Foundation

In cooperation with UNESCO Chair „Women – Society – Development“

GENDER IN SCIENCE IN THE LIGHT OF RESEARCH 2003-2009

Why is it worth speaking of science in the context of family obligations?

- Research conducted so far throughout Europe has shown that – regardless of the social group – it is mostly the family that cares for its members, even in countries, in which various social services and legal regulations support this function.
- The quality of life of families that care for their members is a very significant prerequisite of individual and social development, which should, to a greater extent, become a subject of the properly defined and planned social care, as well as a public discourse.

Purpose of the conference

During the conference „**Gender in science – an obstacle or an advantage? Scientific careers and private lives**“, the situation of women in science will be analyzed in the context of reconciling parental roles and private lives with scientific work.

The research results presented will be confronted with experiences of persons engaged in masculinized fields of science and dealing with problems of institutional support for families with regard to their duties associated with care.

Project WORKCARE Synergies

The conference has been organized within the framework of the project **WORKCARE Synergies**, financed from the resources of the 7th Framework Programme of the European Commission. The project participants are seven countries: Austria, Denmark, Poland, Portugal, Hungary, Great Britain and Italy.

In Poland, the project is implemented by the Institute of Social Sciences of Warsaw University (coordinator – professor Renata Siemieńska) in cooperation with Feminoteka Foundation. The project coordinators are doctor Michaela Gstrein and doctor Liliana Mateeva of Institut für Höhere Studien Vienna.

The project was commenced in 2010 and it will be implemented until the end of year 2011. Its purpose is to present the results of more than ten research projects, conducted within the framework of the previous Framework Programmes, which pertained to the models of reconciliation of work models with care for family members in various social groups.

Both quantitative and qualitative research results will be presented within the framework of the project. The data quoted is based on **research on scientific careers in the context of gender and reconciliation of occupational and family obligations**, conducted in Poland by the team of the Institute for Social Studies of University of Warsaw, led by professor Renata Siemieńska:

- **2008 Gender and Funding Research in Poland** (project “Gender and Excellence in EU member countries and associated countries”) – analysis of statistical data
- **2006 WorkCare** (6th Framework Programme) – qualitative interviews with working parents
- **2005 Young Scientists in Poland** (project „National System for Monitoring of Equal Treatment of Women and Men”, PHARE) – quantitative research on a nationwide test sample of about 900 young scientists)

- **2003 Women in European Universities** (5th Framework Programme) – quantitative research on a nationwide test sample of about 900 respondents

GENDER IN SCIENCE – AN OBSTACLE OR AN ADVANTAGE?

Not many women develop scientific careers, particularly in some fields of science. What is the reason?

- Do scientific institutions and universities defend the image of a scientist as a traditionally male profession, due to which women are accepted and promoted very reluctantly (**institutional barriers**)?
- Do women refuse to engage in scientific careers, believing they will never succeed in a profession, which is specific and considered to be typical for men (**cultural barriers**)?
- Do women tend to keep away from sciences and engineering, because they share the common view that they have no talent for mathematics, physics, and thus they cannot expect to be successful in these fields (**individual barriers associated with gender**)?

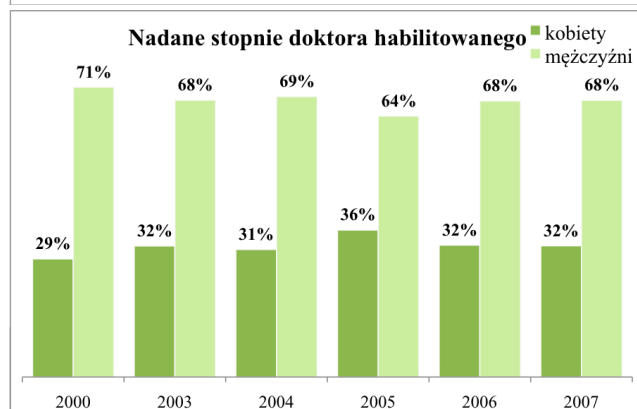
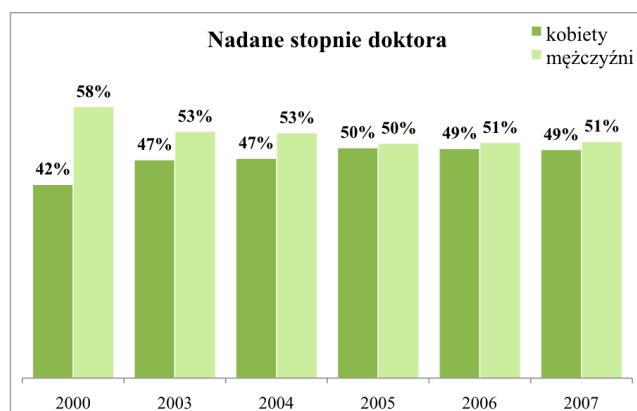
In order to answer these questions, it is worth analyzing more carefully the data from research mentioned above.

GENDER AND ACADEMIC DEGREES

In the eighties, men constituted 70% of all persons in Poland, who earned the doctor degree. **In the last 30 years, the number of women and men earning this title became equal.** In years 1995-2003, the number of doctoral students increased three times, and the proportions between women and men changed – **at present, women constitute about one half of all doctoral students.** Except for engineering and technical sciences, the differences in the number of women and men earning the doctor degree in subsequent year do not exceed about ten percent.

In the same period, in all fields of science, a **much lower number of women and men earned the Ph. D. and professor title.** The higher the academic title or degree, the greater are the differences in the number of women and men promoted in individual fields. At the same time, for all types of higher education schools, a **permanent increase in the percentage of women earning higher level academic titles can be observed,** although it is much less dynamic at universities of technology.

Although the percentage of female students at the Polish universities is similar to the average of the European Union, **the percentage of female professors in Poland is**



among the highest, amounting to 27%, while the average for EU countries is 14%. Summing up, the increase in the percentage of women attaining significant positions in science is visible, but it is definitely slower, when it comes to the highest levels, associated with the greatest prestige.

Source: *Science and technology in 2007, Central Statistical Office, 2009*

GENDER AND GRANTS

Among the Polish academic employees, **grants are more often used by men**. Gender differences are particularly well visible in sciences, agriculture, as well as social sciences.

In years 2005-2007, projects managed by women constituted 1/3 of all projects approved. These numbers do not reflect the share of women among those employed in the sector of science and higher education.

Grants of the Ministry of Science and Higher Education, awarded to women for scientific research, are lower than those received by men for „own” research and “supervisor” research in humanities, social sciences and behavioral sciences (in other fields – higher).

„**Gender gap**” – the percentage of applications, which were awarded financing in comparison with the number of applications filed (the indicator of success) in the subpopulations of women and men is lower in the case of women.

The proportions specified reflect a relatively lower position of women in the hierarchy of the science sector discussed.

Source: *own calculations*

GENDER AND SCIENTIFIC EFFECTIVENESS

Among the young scientists examined, in the last two years, 90% men and 93% women had published no article in a book published abroad. As many as 65% of men and 73% of women had no publications in foreign periodicals as well. It means that both women and men publish little, but there are no visible differences between scientific productivity of women and men in Poland.

GENDER AND MENTORING

Having a mentor, or a person, who supports a young scientist in their scientific career, is one of the most significant conditions of professional success in science. The results show that **male mentors more often support men than women**. Since the percentage of men occupying higher scientific positions is greater, and they are more eager to support men than women – we can speak of creation of male support networks – for which there



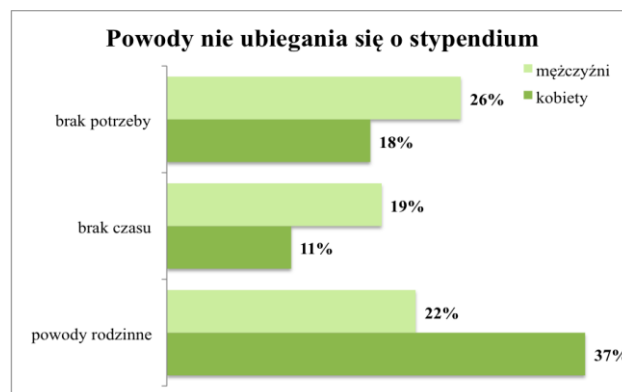
is no counterweight of a network of female mentors.

Source: *Careers of young scientists. Pentor 2005*

GENDER AND SCHOLARSHIPS

Gender is a factor that to a great extent determines reasons, for which young scientists give up applying for scholarships. In the case of women, the most often encountered reason is their family situation; in the case of men, it is usually no need of having to use a scholarship. It can be assumed that **family obligations of young female scientists limit greatly their mobility.**

Source: *Careers of young scientists. Pentor 2005*



WORK IN SCIENCE AND FAMILY OBLIGATIONS

The results of qualitative research (WorkCare 2006) seem to confirm the hypothesis of influence of family duties upon scientific careers of women – both of the female scientists examined listed their **duties associated with having a child to take care of as the main cause of their decreased mobility.**

I have already missed three conferences. In a sense, I can say I regret this. Let's say, I could go to Kielce with the child, but going to Munich would be a problem. I missed that. I am aware of having missed certain things, but it's a two-way street [Interview with a tutor, mother of three children]

For the first two years, I would not go to conferences because of my son. Even more so, as I breastfed for almost two years, so this was also associated with it... And when my son became a little bit more independent, I would go and leave him with his father. [Interview with a tutor, mother of one child]

Similarly, in the case of attempting to attain positions that provide better opportunities of career development, but associated with a greater time burden. According to one of the respondents: (...) *I had received proposals to go to another chair, I would work at a different faculty. I gave up. **There were better opportunities for development, but, as far as I knew, the atmosphere would not be so friendly for me and my family.** For these people, having one child was comparable to climbing Mount Everest, and having three was a pathology. Perhaps I'm exaggerating, but it is not perceived as positively there as at my workplace.*

In other words, having children, particularly more than one, is one of the significant factors that delay the development of professional careers of female scientists. This delay pertains, in the first place, to the Ph. D. and the following stages of career. According to the academic employees examined:

Before my child was born, I started doctoral studies and I had hoped I would finish before my son was born, but then we moved and there were thousands of things and a great delay. [Interview with a tutor, mother of one child]

When my first child was born, I was a doctoral student... afterwards, my doctoral thesis was almost ready, and then, unfortunately (or fortunately, really) I got pregnant again and I finished and defended my thesis, being pregnant. I got the tutor job, I started working, then my son was born. [Interview with a tutor, mother of three children]

At the same time, **working at the university was perceived by the respondents as providing the opportunity of reconciling between family and occupational duties:**

Deciding to stay at the University was also due to the fact that it was much easier to reconcile such normal family life with work. [Interview with a tutor, mother of one child]

Working at university makes it possible to reconcile between certain things, this is one of the greatest advantages. [Interview with a tutor, mother of three]

The respondents also underlined that **another significant factor was the attitude of their co-workers and superiors towards parenthood:**

When my son was born, which was the most difficult period, when I only did what I absolutely had to, I only came for the hours that I had to and nothing more, my direct superior, who was also my director, said, „Well, this is a period of preferential treatment now that you have a small child“. So, this was very positive. Of course, there was no relief of any kind, but there was a positive attitude. Everyone understood that there was a small child and I could fail to do something on time or do it at all. This was very nice. [Interview with a tutor, mother of one child]

First of all: support and the fact that a pregnant woman is not a monster to be permanently protected and treated like a sacred cow. Secondly: the fact that they are able to help me arrange my schedule so that I am able to do that, have children and avoid giving up things that are associated with working at university. Attitude is the most significant matter... This support is really important. The professor is also trying to organize my work (because, for instance, I have to start working on my Ph. D.) so that I do not lose motivation. He says: „No problem, raise your children, sooner or later you will have more time and then you will do three times as much as me.“ So this is very important. It makes me realize I am not wasting time. [Interview with a tutor, mother of three children]

Depending on their system of values and ability to get support, the respondents used various strategies to **reconcile their scientific work with family duties:** :

This may even look strange, but my son was planned so that he was born in June, and knowing I was pregnant, I just planned no lectures in the first semester, but in the second one, so I just used my leave the best that I could. In fact, I could have resigned from these lectures at all, but I did not want to resign for my own health [Interview with a tutor, mother of one child].

I am simply dead tired. A good way of organizing things would be having the babysitter for 8 hours a day, but we can't afford it, well, we could afford it, but that's a lot of money and we know that now I can spend more time with my son and I want to be with him more, later on there will be no such bond. If we made 5 thousand in the state-owned sector, I could limit myself to a single job, but now, perhaps this does not sound great, but we have to make additional money, at the cost of the time dedicated to our children, unfortunately. [Interview with a tutor, mother of three children]

CONCLUSIONS or the conditions of scientific „productivity of women and men:

- **Institutional barriers and support** (e.g. scholarship and grant programmes for women)
- **Cultural patterns** (division of roles in the family, a scientist stereotype)
- **Cultural capital of the family** (education of the parents)
- **Duties associated with the life cycle phase** (differentiated due to gender)