
Meta-analysis of gender and science research

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# D31 – Country report
# Czech Republic

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# 1. Introduction

Two main factors influenced the research questions developed in the period under study (since 1980) in the Czech Republic:

- The fact that in the period 1948 – 1990 the issue of gender in science and education has not been under scientific, civic, institutional or governmental focus. The issue starts to develop as a scientific discipline only with the 21st century.
- The lack of desegregated data and statistics according to sex.

Apart from women's activism during the First Republic, the issue of women in science first appeared in the Czech Republic around the year 2000. European Union played a key role in this development. At the very end of 1999, during the Finnish Presidency, the Helsinki Group for Women in Science (HG) was established. Because the Czech Republic was a country associated to the 6th Framework Programme, it was also called upon to appoint its representatives. In order for the CR to be able to meet its commitments to the HG, by 2000 a Steering Committee for Women in Science had been appointed and in 2001 the National Contact Centre for Women in Science (NCCWS) was established. NCCWS was founded and until now exists on the basis of a project first created by Marie Čermáková, head of the Gender & Sociology Department at the Institute of Sociology of the Czech Academy of Science (currently the head of the Institute) and funded by the Ministry of Education, Youth and Sport.

Activities focused on achieving equal opportunities in research in the Czech Republic after the year 1989 were developed at the crossroads of European policies and critical feminist approaches enforced by the National Contact Centre for Women in Science led by Marcela Linková. By the policy makers Czech Republic is depicted as a place where it is necessary to introduce changes in order to catch up with Western Europe and global science. NCCWS is the institution that carries out most of all the studies on women and science analyzed in this report. The issue of gender and science is thus developing in the social sciences framework and is not developed under the framework of life or technical sciences.

The position of Czech female elites in all spheres of scientific research reflects the marginalized position of women in society in Czech Republic as a whole. There are different standards for women and men in Czech society, which makes it very difficult for women to succeed in leading positions in science.

Women in R&D made up 32.6 % of research staff in 2005. The proportions differ significantly when examined according to the type of job position. Though women make up approximately one third of the total employed in R&D, more than one half of these women work in positions other than research positions – in 2005 only 44.9 % of all women employed in R&D worked in research positions; in the case of men, in 2005 61 % of all men working in R&D held a research position. The percentage of women in leadership and decision-making positions is negligible in both higher education and academic research as well as in decision-making bodies. In 2005 most women held the position of assistant or assistant professor (47 % and 41 %, respectively). Although women make up one third of the total number of research and pedagogical staff, only 20 % of associate professors were women, and only 7 % of the full professors were women. In 2006 there was not a single woman among the leadership of the Academy of Sciences, the Academic Council; women make up 11.8 % of the Academic Assembly and 13.3 % of the Scientific Council of the Academy of Science (Linková 2008).

This report which summarizes the main topics of the research on gender and science research demonstrates that this issue that is developing in the last eight years in the Czech Republic is still almost exclusively an issue in social sciences, mostly sociology or philosophy. These issues are entirely missing in the research in life sciences and technical sciences.

# 2. Analysis by topics

## 2.1. Horizontal and vertical segregation

***Research questions***

Due to the critical lack of systematicly desegregated statistics by sex until 2000, this research topic has been developing only recently and very much in conjunction with other issues. The main research questions developed almost uniquely by the NCCWS are:

- Womens´access to higher education
- Leaky pipeline - gradual "disappearances" of women from the scientific career ladder with the growing scientific achievement.
- Conceptual and state-of-the-art studies connecting segregation to other issues – pay, funding, stereotypes, work/family interface.

The researchers constantly promote the issue as broader and as not possible to be limited to simple statistical representation of women in scientific institutions. The authors stress the fact, that it is a far more complex topic, which reflects the overall setting and background of scientific institutions, scientific practice and excellence on one side and the gender structure of the labour market as such together with the attitudes of the Czech society to gender issues on the other side.

One of the main problems that the analysis emphasizes is the absence or unavailability of statistics and often reluctance of managers of the institutions to provide relevant statistics.

***Research approaches***

Statistics about the representation of women in research and education are missing until recently. Most of the studies are conceptual introductions into the issue of women and science and education and state of the art studies. Only couple of small scale surveys have been conducted and two qualitative researches on the attitudes of the population to the position of women in science and on women scientists´ biographies have been carried on.

***Findings***

- Womens´access to higher education

Analyses of available statistical data demonstrate higher prospects of the admission to university studies for men compared to women in most of the fields of study in the Czech Republic. Women are facing discrimination when applying for technical or natural sciences, as they are seen as less cognitively equipped for such a study. On the other side, the “feminized” fields of study give the men the “token” status - the invisible advantage.There is extremely low percentage of women studying technical sciences in Czech Republic.

Female university graduates outnumber male university graduates in the Czech Republic. These numbers, however, are not mirrored in the higher education research sector – among the pedagogical staff at universities only one third are women, and in leadership positions women occupy less than one fifth of the positions. The situation is similar in research and development – only 20–30 % of primary researchers are women.

The quantitative data shows an uneven representation of women in the leading positions in the Czech academy of science and in the Czech tertiary education in general. The data also show the horizontal segregation, as there is a very small percentage of women in natural and technical fields. Women make up only approximately one third of R&D employees. Of these women only about 45 % work in a research position; the others are employed as technical staff or ’other’. That means that women researchers make up only approximately 15 % of the total number of R&D employees.

- Leaky pipeline - gradual "disappearances" of women from the scientific career ladder with the growing scientific achievement.

In the comparison of post-communist countries, the Czech Republic finds itself at the extremes in terms of most indicators – in terms of funding and research structure, the Czech Republic (following Slovenia) relatively best approximates the situation in the EU 15 but the situation of women researchers here is the worst. Although the average number of women

researchers in the EU 15 is similar in the Czech Republic, the equality indicators are much better in the EU 15 (lower vertical segregation). One of the causes identified is the degree of gender awareness in the Czech Republic which is still very low. Statistics about the representation of women are needed because they can be one impulse for increasing the awareness of gender issues in the Czech Republic. Statistics could at least challenge the general conviction that equality of the sexes in Czech science is at a satisfactory level which is the largely prevailing illusion. This leaky pipeline concept is explained by multiple factors (stereotypes, work/care issues, discrimination)

- Conceptual and state-of-the-art studies connecting segregation to other issues – pay, funding, stereotypes, work/family interface.

Segregation is very often connected to other issues discussed below. Science career is portrayed as a labyrinth, where it is very easy for young scientists and especially for women to get lost.

***Gaps***

Lack of systematic statistical investigation disaggregated by sex is the cause of not very well developed analytical framework to this issue which causes non-existence of studies building gender indicators. Qualitative studies reflecting the gender segregation more in-depth not only as an introduction to the "women and science" issue are needed.

## 2.2. Pay and funding

***Research questions***

The gender pay gap issue in science is not deveoped as a research question in the Czech Republic. The focus is on the analysis of funding for science and research, specifically grant agencies in the Czech Republic and the allocation of funds into science and research by field and sex of the grant recipient. This research question is in the Czech republic almost intrinsically linked to the issue of gender segregation.

***Research approaches***

Pay and funding is rarely an analytical research question investigated in-depth as such. Very often it is a part of a state-of-the art study covering more issues or it is mentioned in the context of investigation of other issues such as gender segregation, science policies, equal opportunities of women and men in science or glass ceiling. In the very few publications focused primarily on pay and/or funding the approach is quantitative using descriptive statistics or micro data. Other research mentioning this issue are state-of-the-art studies.

***Findings***

As the pay is not a systematic research question in the Czech Republic, findings are only available about the issue of science funding. Generally there are great disproportions among the grant recipients according to sex and scientific field.

- Analysis has been conducted of the sex of a grant applicants and recipents at the two main grant agencies in the Czech Republic. The proportion of women grant recipients is around 10% in natural sciences and 30 % in social sciences and humanities.
- Also analysis has been conducted of the state budget allocation according to the scientific field. More than 80 % of the budget for science is going to the natural and technical sciences, social sciences are allocated only less than 10 %. Moroever the proportion of women in the natural scinces is only about 25 % and in technical fields only about 15 % but in social scinces the proportion of women is between 30 to 50 %.

***Gaps***

Gender pay gap issue in science is not a research issue in the Czech Republic. The state-of-the-art studies that mention gender pay gap and inequality in funding show that systematic investigation into this important area is very much needed.

## 2.3. Stereotypes and identity

***Research questions***

The topic of stereotypes and identity raised quite a lot of scientific attention and publications in the Czech Republic in recent years with the development of the issue women and science as a scientific field. Research questions have been developed in two themes under this topic:

The social construction of identity:
a) Question of the social image of women and men scientists
b) School as a gendered space that forms the identity of students

The social construction of science:
a) Conceptual reflections about epistemology of science from a gender perspective
b) Analysis of the gendered order in scientific institutions, which are based on masculine values.

***Research approaches***

The research questions that are very diverse under this topic have been also investigated by different research approaches. The most common used research approaches under this topic in the Czech Republic are conceptual and state-of-the-art studies in the field of history of science and/or history of the women's movement, in the field of philosophy and sociology. This is mainly true for the theme of cognitive abilities.

The social construction of identity theme has been investigated by:
a) Quantitative representative surveys on the social image of women and men scientists.
b) State-of-the-art studies in the education system – teaching stuff, textbooks, curricula, study trajectories of girls and boys.

The social construction of science theme has been approached as conceptual research and also qualitative research using biographical interviews.

***Findings***

In the nineteen century the higher education for women was provided in special school for girls. But the science was not considered the field for women, as well as other types of employment, which were only acceptable for women from the lowest social strata. The Czech female intellectuals in the nineteenth century were mostly writers. The Czech womens´ movement started to be very active at the end of the nineteenth and beginning of the twentieth century, whereas the agenda was mostly connected to gaining the right to vote. Until the year 1908 only 19 women finished university education in Czech university in Prague. In 1918 only 86 women had received a degree in medicine. The first female scientists appeared in the Czech academic circle after the year 1918, during the period of the First republic. The first two academic teachers had doctoral degree in philosophy and history.

The historans conclude that the important thing is not to stress the diversity of women and men, but to see every person as individuals. On the other hand social scientists often take the feminist of difference point of view and stress the aspects that women (could) bring to the science and the overal masculinity of the scientific institutions, structures and processes.

Under the two themes developed the main findings are:

**The social construction of identity**

- Public opinion research on the social image of women and men scientists shows that both the male and the female scientists were associated with words as "devoted", having "special skills" and "talent" but men were perceived as more dominant in these characteristics. To the contrary, in the case of female scientists the stereotypes were

connected to the family relations and physical attributes. Women scientists were associated with characteristics as "single", "putting the work first" or "alone". To the contrary male scientists were seen as "unpractical", "living out of reality" or "introverted".

- The gender segregation of the teaching body experienced daily and throughout the educational system by pupils must extensively appear to those pupils as validating the gender stereotypes.
- School is an institution with a key meaning as it is crucial for personal and social development and as it affects the emergence of gender identity, and thus is the main mean of gender socialization. School as such has got the tendency to defend and maintain the existing social status quo. School is an institution with substantial masculine orientation. This goes hand in hand with the physical arrangement of the school space. School is investigated as a gendered space together with the gendering of the teachers' board, curriculum and textbooks, teaching methods and pedagogical evaluation, communication between teachers and pupils, school class, parents and other actors in the school activites.
- The findings about the strong gendering of the education system are contrasted with the ambition of pushing for social change through the youngest generation. One of the objectives is to lead pupils to gender openness and equality. The school has got the possible potential for that as it has got space for creating emancipating conditions, however there are structurally given obstacles apparent. Policies of equal opportunities in the educational system are needed.

**Social construction of science**

- It is argued that if location and position are formative from the view of epistemology, then research practice taking into account, systematically, ways in which power relationships and emotional engagement of researcher contribute to discursive structuring of their science claims leads to more adequate knowledge. ‘Politics of location’ is closely related to further feminist epistemological questions, particularly epistemologies supporting socially responsible epistemic behaviour.
- The analysis of the gendered order in scientific institutions are using the theories of “gate keeping” and “homosocial reproduction” as explanations. In the academic institutions which are environments based on masculine values women are facing discrimination.

***Gaps***

The gaps are created by the fact that research finding that have been published until now are rather descriptive either on the basis of a survey or qualitative interviews. There have been only two quantitative surveys and the results have been presented rather descriptively from the mainstream science position.

The only qualitative research technique used has been biographical interviews. The interviews have been published as edited texts. In depth analysis of the qualitative data is missing that would bring more theory grounded in the data which could lead to a discussion of the findings and further development of the field.

It seems that studies in psychology are very much missing under this topic. They could support the knowledge about the existing stereotypes that are not based on objective abilities

In depth empirical research based on quantitative and qualitative research approaches with a strong analytical approach are the main gaps.

## 2.4. Science as a labour activity

***Research questions***

Research under this topic focuses mainly on the work/life balance issues and stems from the recent trend in the social sciences in the Czech Republic and in Europe of the emergence of the work/life balance studies. The main question can be simply put as: How to build a successful scientific career when one is a woman?

- Studies focus on the professional self-fulfilment and its harmonization with private life. Also they discus the dilemma to balance the private interests, for example having family and children with the demand of having linear career.

- Position of young scientists (men and women) and the issue of brain drain is seen as a problem for all young scientists but women face double or multiple disadvantages and so this question is often under focus.

There are also two very important studies that should be particularly mentioned. Even though their focus is highly important for the socio/historical context of the Czech Republic, they stand alone and we can only expect that further investigation in the topics will follow.

- comparison of the conditions for women in the scientific field during and after the year 1989 from the perspective of gender equality. This is a qualitative interview based research depicting the differences between the experience of young women scientists who developed their career in the 1990s and older women scientists who developed their career under the state-socialist regime.
- Qualitative interview based research on the self-reflection and work conditions of the research and pedagogical work of female and male academics teaching and researching gender in the Czech Republic. These two studies touch wider questions of the discreditation of women´s emancipation after 1989 as a state-socialist project that was anyway rather unsuccessful in practice and uncover the difficult situation for the re-establishment of women´s studies and women´s movement after 1989 in the Czech Republic.

***Research approaches***

Under this topic the far most often used research approach is qualitative research based on biographic interviews. One part of the studies is based on the analysis of the interviews by the grounded theory research approach which can generate theory stemming from the data. The other part of the qualitative studies that has been conducted at the National Contact Centre for Women and Science is based on persentation of edited interviews to the readers.

Some studies are more state-of-the-art studies and this issue is also very often part of the conceptual studies presenting the broader issue of women in science as such.

***Findings***

Science as a labour activity is in the work of the NCCWS presented through metaphors:

- Science career as a labyrinth, where it is very easy for young scientists and especially for women to get lost. The concepts of the leaky pipeline and brain drain are applied for the explanation of difficulties women face and for the low proportion of women in science.
- Room of one´s own is using the Virginia Wolf´s theory on the needs of a certain space for a woman to develop her professional skills.
- Analytical studies based on qualitative interviews discus the barriers young female scientists have to face when entering the academic field and also the problems they are facing when they have family and children. It is to present young women who have chosen an academic career, succeeded in their efforts and have managed to enter the world of science. The stories they tell about their journeys to their disciplines depict these journeys as natural. This type of research that presents young or established women scientists in edited interviews with them can act as role models for women students or young women entering the world of science.
- Studies show what problems women are facing in science, especially at the beginning of their research career. This is in the same period of time in their life when the most women start their own families. To reconcile scientific careers and private life, especially at the beginning, during the doctoral studies and right after, when the actual base of the academic prestige is built, is very difficult. Scientific work puts high demands on time, not only in everyday terms, but also because of the need of study mobility. That is crucial for a successful scientific career. This may mean setting limits for both women and men who interrupt careers for any reasons.
- The comparison shows that from the life trajectories of the older scientists (by a large part under the state-socialist regime) it is obvious that they did not strictly build a career, as it is noticeable in the stories of young scientists. Many of them had children first and then they returned to the academic field. Because of lesser competition and also fewer chances, especially for the scientists who were not communist party members, there was not so much rust for the older scientist. On the other hand, the vertical segregation and discrimination remained similar for all fifty years as it did not change in the Czech labour market generally.

In all the aspects, women scientists are facing double or multiple disadvantages compared to their male colleagues. On the other hand men are often under pressure of economic responsibility to the family.

***Gaps***

The prevalence of qualitative research that only very rarely brings new theory and of the state-of-the-art research implies that empirical research is missing. Quantitative empirical research has not been conducted at all on this topic in the Czech Republic and there is only very few small scale qualitative studies that can generate analytical discussions.

Until now research under this topic considered the body of women scientists as rather homogeneous. More specific research based on scientific fields is needed as the labour activity and career demands are very specific according to the field and position.

## 2.5. Scientific excellence

***Research questions***

Scientific excellence is a rather underdeveloped area in the Czech Republic. Most studies connect this topic to the topic of science as a labour activity focusing or mentioning the high steps on the career ladder, the scientific productivity, achievements and requirements to reach the excellence within the scientific career of women. Work/life balance issues are very much integrated also under this topic.

Also this topic is in most studies connected to the stereotypes and identity topic, particularly the issue of gendering of scientific institutions.

And finaly this topic is sometimes connected to the issue of funding of the science.

***Research approaches***

Most of the studies are conceptual or state-of-the-art publications introducing the issue of gender into the general debate of scientific excellence. These publications cover always also other issues. Sometimes the scientific policy in the Czech republic is discussed in the context of the European science policy. One study is using the content analysis of the documents research method.

There are several studies that use empirical research methods – qualitative analysis of interviews with women scientists.

***Findings***

The analysis of the gendered order in scientific institutions which also defines the measures for the scientific excelence are using the theories of “gate keeping” and “homosocial reproduction” as explanations.

- In the academic institutions which are environments based on masculine values women are facing discrimination. The problem of values in science is discussed and it is suggested that even though science should be objective and rational, it is not value free in reality. The characteristics of science are stereotypically considered as masculine. Therefore women are often seen as less equipped to be scientists. The language used in the science is gendered. Also the duty to care is stereotypically female burden, which is not recognized in the grant schemes or evaluations of the scientific production. There is an age limit for doctoral and postdoctoral grants which is the time people start their family. Gender is also crucial when the scientific impact is evaluated as, for example, the ETAN report shows. Men also have easier access to academic positions and research jobs. Gender segregation in the research fields leads to the problematic situation of women in the dominantly male research teams.
- The political power of science is conceptualized and it is found that the institutions funding research are influencing not just the topic covered by scientists but also the whole society therefore the funding institutions hold great power over society. In this context the Framework program as the tool of the European science policy is discussed and criticised for its focus on competitivness and on basic research so that the research results are more

comprehensive for the public. On one side the discussion in science is open to public, on the other side the public is excluded from the discussion about the topics researched.

***Gaps***

There are many gaps in this very much underdeveloped issue in the Czech Republic mainly due to the transformative nature of the scientific policy in the recent and current period. The Czech scientific policy is generaly rather "in the making" (and the need to approach to the European standards is stressed) than an established structure for analysis.

Institutional practices of evaluation is an issue that is practically absent and that would be very important to develop. Also empirical quantitative research that could start the debate about building of gender specific and gender sensitive indicators of the scientifi excellence is a big gap.

## 2.6 Gender in research contents

***Research questions***

The topic of gender in research contents and the situated knowledge production has not been much developed in the Czech Republic yet. We can find couple of historical studies on female intelectuals of Czech women's movement in nineteenth century, about their social status and life.

From the epistemological perspective this issue entred the Czech Republic´s scientific discourse only very recently with one international project funded by European Commission led by the National Contact Centre for Women in Science "Knowledge, Institutions and Gender - an East-West Comparative Study" (knowing). The goal of this project conducted between 2006 and 2008 was:

- To examine the production of knowledge contexts and cultures, including the role of gender, from an "East-West" perspective.
- Building on scholarship in feminist philosophy and social studies of science, the project examined the role of gender in the production of knowledge contexts and cultures in an East-West perspective in two scientific fields (sociology and biology).
- The structural and institutionalised practices and procedures that hinder and/or promote the participation of women and young people in science, including standards of excellence have been under investigation. System-wide and institutionalised practices that serve to prioritise and reward certain types of behaviours, interests, and outlooks and delegitimise others have been indentified.

***Research approaches***

Several studies have been written by historians using analysis of documents and presenting examples of women intellectuals and first women scientists.

There is couple of chapters published about this topic from the philosophy positions introducing theories from abroad to the Czech context. These studies are using the conceptual approach.

The Knowing research project applies a multi-method approach that aims to build theory and to develop appropriate conceptual tools. Research has been simultaneously carried out in five partner countries. It encompasses the analysis of existing statistical data on two selected research institutions per country that are situated in national contexts, and the analysis of a life course questionnaire distributed to the members of these institutions requesting demographic and career related information. Subsequent stages included critical discourse analysis of relevant science policy documents, and institutional policies and procedures; targeted participant observation of research practices in the selected institutions; in-depth interviews with scientists in the institutions under study and repeated focus groups. The research culminated in a comparative cross-national analysis.

***Findings***

This is a very new topic in the Czech science. It started as a more philosophycal question and has been further applied in a research project in social sciences.

- At the heart of feminist criticism of the traditional concept of reason is the effort to overcome the dichotomous conceptualizations of traditional philosophy and to articulate and re-define the concepts of reason, rationality, objectivity, the subject /object of knowledge, and the cognitive process as such.
- Critical approaches are heterogeneous as a result of diverse theoretical foundations that serve as a source of argument. The heterogeneity of the underlying arguments in feminist theory is intertwined with its inter-disciplinary nature, where the stress is on co-operation between various branches of knowledge - between epistemology, theory, history and sociology of science as well as other disciplines preoccupied with knowledge and knowledge production.
- The notions of situatedness and positionality are key notions for feminist epistemology – whether for its understanding of objectivity, rationality, or for the cognitive process as a whole.

The findings from the Knowing research project described above are not published yet as the project finished in 2008. They will be disseminated at national and EU levels to influence science policies and to encourage the establishment of feminist science studies.

***Gaps***

The epistemological debate about gender bias in scientific knowledge is a totally new area in the Czech Republic. The issue of gender in the research contents is only developed in social sciences and it is completely lacking in biomedical sciences.

## 2.7 Policies towards gender equality in science

***Research questions***

This issue focus on the analysis of national, regional and local measures and programmes towards gender equality in research is very new and only starting to develop. Until recently the issue of equal opportunities in education and research and development has been neglected in the Czech Republic although it is one of the areas that is crucial for achieving gender equality due to the importance of socialisation that occurs during the educational process and due to the importance of science in shaping the image of the world in the framework of which we grasp reality around us, including the formation and reproduction of gender stereotypes in research and development.

- Due to the start of the activities for the promotion of women in science in the Czech Republic only in 2001 in the conjunction and at the same time as these question entred policy level of the European Union, most of the studies existing up to date in the Czech Republic are introductions into or analysis of the European level of policies.
- One article mentions the issue of quotas which represents very controversial topic in the Czech Republic due to the discreditation of this system under the state-socialist regime.

***Research approaches***

This issue is only recently developing in social sciences led by the National Contact Centre for Women in Science. The approach to analyse the measures is very new, the publications are mostly descriptions of the measures and programmes on the European level.

***Findings***

There are very few measures and programmes towards gender equality in research at the national level in the Czech Republic. Nor activities of NGOs nor activities from the bottom - of the scientists - that would promote this topic other than the institutionally established National

Contact Centre for Women in Science practically exist yet. Policies that are introduced are often initialized from the European level. During the eight years of the existence of the NCCWS projects, measures and programmes for the promotion of equal opportunities have been introduced and only now comes the time of reflections and analysis.

Studies that exist either evaluate the contemporary policies at the European level or the measures and activities historically from the 19th century until the Second World War.

***Gaps***

This is a very new topic until now practically non existent.

# 3. Conclusions

Due to the entrance of the issue of women in science in the Czech Republic only in 2001 most of the existing studies are conceptual and state-of-the-art introductions into the issue of women and science on the level of European Union. Moreover because the only place of the institutionalisation of this field is the NCCWS in the Gender & Sociology Department at the Institute of Sociology of the Czech Academy of Science in this report I showed how it is almost exclusively developing in the framework of social sciences. Linked to this is the fact that the most emerging topics are stereotypes and identity and science as a labour activity. The rest of the topics under investigation in this report are still waiting for development in the specific background of the Czech science.

The conceptual approach mostly used in the existing studies is also intrinsic to the situation of a very recent introduction of this issue into the Czech environment. The researchers in NCCWS and around are building mainly on Western (European) scholarship in feminist philosophy and social studies of science. Due to the critical lack of statistical data until very recently, the conditions for the development of certain issues (e.g. segregation, pay and funding) are extremely difficult. The explorative nature of the approach shows in the use of qualitative research methods. There is a very little of the quantitative survey data.

Research shows that the position of women in the Czech science is marked by gender inequalities and their proportion is significantly lower compared to men. The sociological approach is linking the position of women scientists to the position of women in the labour market generally applying similar theoretical conceptualizations. The epistemological questions are developing only very recently.

The main gaps in the case of the Czech Republic represent:

- the developement of these topics also in the fields of life and technical sciences;
- the use of research methods in order to formulate new theory
- the issue of the gender bias in scientific knowledge production
- the available and desegregated statistisc according to sex
- the development of a debate on new measures for the promotion of gender equality in science and their evaluations.

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