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INTERNATIONAL WOMEN'S DAY 2014 & 2015

The BKH-AE Women's Week, 2006-2015

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Summary. The article describes the activities of the Institute for Catalan Studies commemorating the International Women's Day, from 2006 to 2012, and the new activities developed by the Barcelona Knowledge Hub of the Academia Europaea (BKH-AE) constituting the BKH-AE Women's Week, from 2013 to 2015. This Week will be continued in the coming years. Two major changes have revolutionised society and specifically higher education in only one century. Firstly, there has been a rapid expansion of higher education and scientific research throughout the world. Access to higher education has become a common aspiration, and is no longer perceived as the privilege of social elites. Moreover, higher education is increasingly recognised as a social, economic and political driving force for progress. Nowadays, a larger proportion of humanity aspires to education, and higher education is today increasingly regarded as tomorrow's general education. Secondly, this exceptional opportunity to promote and strengthen the values of science in the service of humanism and peaceful development is partially the consequence of the achievements of women in science during recent decades. By breaking down the barriers posed by earlier cultural norms, women have been able to apply their knowledge and skills to many fields of science and humanities, and their contributions to progress in all of them have been highly significant. [Contrib Sci 11:21-26 (2015)]

Introduction

From 2006 to 2012, the Institute for Catalan Studies commemorated from 2006 to 2012 the International Women's Day with a Distinguished Lecture. Since 2013, the celebration has been the responsibility of the Barcelona Knowledge Hub of the Academia Europaea (BKH-AE) [4,6]. To the main lecture, other activities have been added, including a concert, a workshop and a visit to a center in Barcelona of special cultural or scientific relevance. Therefore, the activity has been renamed the BKH-AE Women's Week.

The International Women's Day (IWD) first emerged from the activities of female workers at the start of the 20th century in North America and across Europe. On February 28, 1909, the first Woman's Day was observed in the United States. The Socialist Party of America proposed this day in honor of the 1908 strike of garment workers in New York, where women protested against working conditions. In

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Fig. 1. Celebration of the International Women's Day at the Barcelona Knowledge Hub of the Academia Europaea. Lectures by Nadia El-Awady, Egypt, on March 5, 2014 (left), and by Lynn Kamerlin, Sweden, presented by Anna Alberni, Barcelona, on March 4, 2015 (right). Held at the premises of the Institute for Catalan Studies.

1910, the Socialist International Meeting in Copenhagen established a Women's Day to honor the movement for women's rights and to build support for achieving universal suffrage for women. The proposal was greeted with unanimous approval by the conference of over 100 women from 17 countries, which included the first three women elected to the Finnish Parliament. No fixed date was selected for the observance. As a result of the Copenhagen initiative, IWD was marked for the first time (19 March) in Austria, Denmark, Germany and Switzerland, where more than one million women and men attended rallies. In addition to the right to vote and to hold public office, they demanded women's rights to work, to vocational training and to an end to discrimination on the job.

In 1913–1914 the IWD also became a mechanism for protesting World War I. As part of the peace movement, Russian women observed their first IWD on the last Sunday in February. Elsewhere in Europe, on or around 8 March of the following year, women held rallies either to protest the war or to express solidarity with other activists. In 1917, against the backdrop of the war, women in Russia again chose to protest and strike for "bread and peace" on the last Sunday in February (which fell on 8 March on the Gregorian calendar). Four days later, the Czar abdicated and the provisional Government granted women the right to vote. Since those early years, the growing international women's movement, which has been strengthened by four global UN women's conferences, has helped make the commemoration a rallying point to build support for women's rights and participation in the political and economic arenas.

Many countries around the world followed the celebration of the International Women's Day (IWD), in commemoration of the women's struggles to revindicate their rights, recognizing their social achievements in those struggles and

looking ahead to obtain a full and equal participation in society. The United Nations (UN) started celebrating the IWD on March 8, 1975, on the occasion of the International Women's Year. In December 1977, a resolution of the UN General Assembly proclaimed a UN Day for Women's Rights and International Peace, which would be observed on any day of the year by Member States, according to their traditions. In fact, as we have seen, a Women's Day had been observed since the early 20th century. According to Temma Kaplan, in Europe, it was first celebrated on March 18, 1911, coinciding with the 40th anniversary of the Paris Commune. Nowadays, the IWD is observed in more than 100 countries and in some of them it is even an official public holiday.

Increasingly, IWD is a time to reflect on progress made, to call for change and to celebrate acts of courage and determination by ordinary women who have played an extraordinary role in the history of their countries and communities. Accordingly, the Institute for Catalan Studies (IEC), always eager to follow international trends and multinational cooperation, celebrated the IWD from 2006 to 2012 with a Distinguished Lecture held during the week of March 8 (Fig. 1). Female researchers and scholars have talked on a great variety of topics, as shown in Table 1. Several lectures related to the IWD given at the IEC have been published in *Contributions to Science* [1,3,5]. From 2013 on, other events have been added to the main lecture (Fig. 2, see p. 24). Therefore, the whole activity has been renamed the BKH-AE Women's Week.

The role of the AE in promoting women at the highest academic levels

On 2 Nov. 2000, UNESCO's Director General, Mr. Koichiro Matsuura, received Prof. Stig Strömholm, President of the



Table 1. Events related to the International Women's Day held at the Institute for Catalan Studies (IEC), Barcelona: The International Women's Day Distinguished Lectures, organized by the IEC from 2006 to 2012, and the Women's Week activities organized by the BKH-AE from 2013 to present.

International Women's Day 2006–2015

Organized by the Institute for Catalan Studies

2006 "The challenges of subalternity: Women's movements"

Mary Nash, University of Barcelona

2007 "The eloquent silence of Rachel Carson"

Mercè Piqueras, Catalan Association for Science Communication (ACCC)

2008 "Laura Bassi and Giuseppe Cerati: an 'electric' couple"

Marta Cavazza, University of Bologna

2009 "Sex and family throughout evolution"

Anna Omedes, Natural Sciences Museum of Barcelona

2010 "European Spatial Agency (ESA) Gaia Mission"

Carme Jordi, University of Barcelona

2011 "Women, reproduction, and in vitro fertilization"

Francesca Vidal, Autonomous University of Barcelona

2012 "Lynn Margulis (1938–2011): The will to be, the impetus to do"

Coordinated by Carmen Chica and Nicole Skinner, International Microbiology journal. With the participation of: Mercè Piqueras, Marta Estrada, Montse Ponsà, Isabel Esteve, Anna Omedes, Núria Gaju, Marie-Odile Gobillard, Marisa Castro, Eva Barreno, Bego

Vendrell, Alícia Duró, Wendy Ran and Olga C. Miracle

Organized by the Barcelona Knowledge Hub-Academia Europaea

2013 "Two cultures, three cultures, or one only culture?"

Dacha Atienza, Museum of Natural Sciences of Barcelona; Mercè Berlanga, University of Barcelona; and Genoveva Martí, Catalan

Institution for Research and Advanced Studies (ICREA)

2014

March 5th Distinguished lecture: "Arab Spring, or long desolate Arab Winter?"

Nadia El-Awadi, Egypt; former president of the World Federation of Science Journalists

March 6th "The Earth is our body. Lynn Margulis and Gaia"

Convenor: Carmen Chica, editor of the book Once Upon a Time. With the participation of: Isabel Esteve, Marta Estrada, Ricard

Guerrero, Juli Peretó, Mercè Piqueras, Anna Omedes, Carme Puche, Joandomènec Ros and Nicole Skinner

2015

March 4th InterSection Workshop: "Women and the academic ladder"

Convenor: Lynn Kamerlin. With the participations of: Clara Corbella, Margaret Luppino, Maryam Ghafouri, M. Dolors Garcia-Ramon

and Lourdes Beneria

March 5th Convenor: Anna Alberni, Catalan Institution for Research and Advanced Studies (ICREA). Short film, "In the search of truth. In

memory of Lynn Margulis", comments by director Carme Puche, Barcelona

Distinguished Lecture: "Empowerment of women in the academic world", by Lynn Kamerlin, University of Uppsala, chair Young

Academy of Europe (YAE).

Concert: "Women's Sephardic Songs". By Olga Miracle, soprano, accompanied by Noemí M. Agell and Pere Olivé, string and

percussion instruments

March 6th Activities in honor of the YAE:

Visit to the Museu Blau, the new Natural Sciences Museum of Barcelona. Visit guided by Marta Punseti.

Visit to the Cercle del Liceu pinacotheque. Visit guided by María Jiménez de Parga.



Fig. 2. Celebration of the BKH-AE Women's Week at the Barcelona Knowledge Hub of the Academia Europaea, on March 5, 2015. Women's Sephardic Songs concert by soprano Olga C. Miracle, Barcelona and Sacramento, California. Held at the premises of the Royal Academy of Medicine of Catalonia.

Academia Europaea, and Prof. Enric Banda, Secretary General of the European Science Foundation (ESF). Both visitors expressed their interest in joining UNESCO's efforts in South East European countries to contribute to the development of the intellectual activities in this region. Director General Matsuura supported this initiative of building upon the region's unique and diverse cultural identities and its historical close cultural links.

The following day, 3 Nov. 2000, another meeting took place between the Permanent Delegates to UNESCO of the following member states: Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Greece, Italy, Romania and Slovenia. The Permanent Delegate of Italy to UNESCO and other delegates agreed on a two-step exercise, with proposals emerging from a scientific expert conference which would need to be examined at a governmental level. As a result of these preliminary discussions, a joint UNESCO-ROSTE/AE/ESF Organizing Committee was set up in order to prepare the expert conference as a first step of the process. The International Conference of Experts on the Reconstruction of Scientific Cooperation in South East Europe took place in Venice, Italy from 24-27 March 2001. It focused on country presentations and reviews of existing collaborations and furthermore on the potential South Eastern European countries to develop cooperation in some strategic fields of research.

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as the privilege of social elites. Moreover, higher education is increasingly recognised as a social, economic and political driving force for progress. Nowadays, a larger proportion of humanity aspires to education, and higher education is increasingly regarded as tomorrow's general education. Secondly, this exceptional opportunity to promote and strengthen the values of science in the service of humanism and peaceful development is partially the cause and the consequence of the achievements of women in science during recent decades. By breaking down the barriers posed by earlier cultural norms, women have been able to apply their knowledge and skills to many fields of science, and their contributions to progress in all of them have been significant.

However, despite these important gains, women in higher education must still overcome difficult hurdles before being granted the same opportunities as their male peers. There is no real evidence that gender has ceased to stratify opportunities. Many obstacles to women's equity remain: advancement to the highest rung of the career ladder is slow, the glass ceiling still hangs low and equal work still does not ensure equal pay. Within the top echelons of higher education, women in many countries are greatly underrepresented even though they receive the majority of undergraduate degrees.

Inequality in STEM higher education

Skill gaps are a key constraint to innovation, hindering productivity growth and economic development. In particular, shortages in the supply of trained professionals in disci-

plines related to science, technology, engineering, and mathematics (STEM) may weaken the innovation potential of a society. Empirical studies show that countries with a higher proportion of engineering graduates tend to grow faster than countries with a higher proportion of graduates in other disciplines. In addition, future technical change is likely to be linked to abilities and tasks related to STEM disciplines. A wide gender gap has persisted over the years at all levels of STEM disciplines throughout the world. Although women have made important advances in their participation in higher education, they are still underrepresented in these fields. This problem is more acute at the seniormost levels of academic and professional hierarchies.

Although 60 percent of tertiary graduates and 45 percent of researchers in Latin America are women (UNESCO, 2007) surpassing all other regions, including Europe (33.9 percent), Oceania (39.2 percent), and Asia (18 percent)—in STEM disciplines, this percentage drops to 36 percent. Only 11 percent of Latin American female graduates of tertiary education are in STEM fields, while STEM fields represent 12.3 percent of new enrolments at the tertiary level (UNESCO UIS database). Moreover, participation of Latin American women at the higher strata of research is rare. For example, while in Brazil 49 percent of researchers are female, only 27 percent of women lead research groups (CNPg database, 2012). Gender equality in science, technology, and innovation is not simply a matter of fairness. A more equitable gender balance is believed to enhance the recruitment of the most talented, irrespective of gender, tapping a partially unexploited resource.

Ceci and Williams reported in 2011 [2] that while in Europe women account for 45 percent of Ph.D. graduates, they represent only 36 percent of associate professors and a mere 18 percent of full professors. Similarly, in the United States, excluding the humanities, 40 percent of new Ph.D. were women, but they are only 34 percent associate professors and only 19 percent of full professors.

Gender equality to promote scientific and technological excellence

A more inclusive workforce is assumed to be more innovative and productive than one which is less so [2]. Having scientists and engineers with diverse backgrounds, interests, and cultures assures better scientific and technological results and the best use of those results. Gender equality is seen as a way to promote scientific and technological excellence rather than just improving opportunities for women.

The untapped potential of fully trained and credentialed women who might be interested in STEM but choose not to pursue degrees in these fields or who decide to change careers because of obstacles, real or perceived, represents an important lost opportunity not only for women themselves but also for society as a whole. Career impediments for women deprive societies of human resources, which is detrimental to competitiveness and development.

More research is needed to identify the root causes of gender disparities in these fields and to develop appropriate policy responses. Although there is growing recognition of the importance of the issue in developing countries, most of the literature on gender inequalities in STEM and the policies designed to rectify them relate to the United States and Europe. Not only are women in Latin America underrepresented in STEM fields; they are also undermeasured, and the lack of information has prevented researchers from deepening understanding of the reasons for this gap. It has also prevented Latin American policy makers from designing effective interventions.

The role of the Academia Europaea

While women academic roles in the 21st century have much advanced, persistent inequities beg for new solutions. And it is in this context that institutions such as the Academia Europaea can provide representative, authoritative and independent perspectives to take on these and other social challenges. One of the main objectives of the Academia Europaea, an international, nongovernmental and not-for-profit association of scientists and scholars from all disciplines, is to propose appropriate action to ensure that topics of trans-European importance to science and scholarship are adequately addressed. Thus, the Academia Europaea endeavours to encourage achievement of the highest possible standards in scholarship, research and education. But to do so, it must promote gender equality and facilitate connectivity and networking among all Members of the Academia. One of the activities in 2014 was the invitation to the author of this article, in his quality of the Academic Director of the BKH-AE, to give the inaugural lecture in the International Seminar "Education and Empowerment of Women", held in Cantoblanco (Madrid) in September 17-19. The Seminar was organized by the Autonomous University of Madrid, with the collaboration of the Embassy of Iran in Madrid and the Barce-Iona Knowledge Hub of the Academia Europaea (Fig. 3).

Although social improvements in women's rights have yet

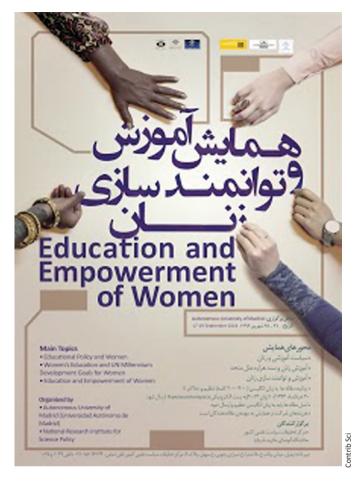


Fig. 3. International Seminar on "Education and Empowerment of Women", held at the Autonomous University of Madrid (Cantoblanco, Madrid), on September 17-19, 2014, with the collaboration of the BKH-AE.

to alter the nature and structure of institutions at the highest academic level, this should not prevent the Academia Europaea from seeking the full participation of the women's college-age population, who embody an as yet untapped source of talent for meeting the needs of society, today and in the coming years. To this end, our institution must work with governmental institutions and with professional societies to support higher education of women, by fearlessly embracing radical shifts in organizational paradigms. We need to pursue gender equality at all levels of education, including the highest, where the challenges are often the most daunting. The systematic incorporation of gender awareness into the fabric of institutional, departmental, and programmatic efforts is crucial. And here there is a great challenge for the Academia Europaea and for other high level educational stakeholders in the continent.

Competing interests. None declared.

References

- Cavazza M (2009) Laura Bassi and Giuseppe Veratti: an electric couple during the Enlightenment. Contrib Sci 5:115-128
- Ceci SJ, Williams WM (2011) Understanding current causes of women's underrepresentation in science. Proc Natl Acad Sci USA 108:3157-3162
- Jordi C (2010) The European Space Agency Gaia mission: exploring the Galaxy. Contrib Sci 6:11-19
- 4. Martí G (2014) The Barcelona Knowledge Hub of the Academia Europaea. Contrib Sci 10:17-22
- Piqueras M (2009) Emma Darwin: a great woman behind a great man. Contrib Sci 5:17-23
- Puche C (2013) The Institute for Catalan Studies and the International Women's Day, 2006–2013. Contrib Sci 9:107-108