



## Workshop III: Improving the Workplace Environment

Igle Gledhill and Gillian Butcher

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# Workshop III: Improving the Workplace Environment

Igle Gledhill<sup>1, a)</sup> and Gillian Butcher<sup>2</sup>

<sup>1</sup>*Council for Scientific and Industrial Research, Pretoria, South Africa*

<sup>2</sup>*Department of Physics and Astronomy, University of Leicester, UK*

<sup>a)</sup>igledhil@csir.co.za

**Abstract.** Research has shown that companies with more diversity and a better workplace perform better. So what makes a good workplace in physics, where women and men can work to their full potential? In the Improving the Workplace Environment workshop of the 5th IUPAP International Conference on Women in Physics, participants heard about initiatives taking place in Canada, the UK, Japan, and India to improve the workplace environment and shared good practices from around the world. Some of the less tangible aspects of the workplace environment, such as unconscious bias and accumulation of advantage and disadvantage, were explored.

## EXISTING INITIATIVES

A recurring theme of the workshop on improving the workplace environment for women physicists was, “What is good for women is good for all.” Melanie Campbell of the University of Waterloo reviewed workplace policies in Canadian universities and the Natural Sciences and Engineering Research Council of Canada (the government grant agency), focusing on family leave issues and good practice in hiring for diversity. Having well-defined provisions at all levels of the workplace (institutional/employer, government, and granting agency) is important, because that brings an entitlement to all. More informal arrangements, while allowing flexibility of response, are more open to inequality of use.

Canadian grant agencies now include a standard “interruption of research” section to help normalize leaves of absence. Family leave is separated into a maternity leave of 15 weeks—a “recovery period” for biological mothers—and up to 35 weeks parental leave (also covers adoption) that can be shared between parents. On-campus day care, along with grants that cover incremental costs of childcare in a flexible manner to suit the needs of parents, are of great benefit. Other types of leave considered are eldercare, medical, family, compassionate, and personal emergency leave. A “stop the clock” policy for up to one year of family-related or medical leave is available for tenure, during which the grant agency can extend funding and defer application for continued funding until after the leave is completed.

Hiring for diversity needs to address the “two-body problem.” Good practice when considering spousal appointments includes training in implicit bias for hiring committees and administrators and open searches to create a large applicant pool. It is important for openness and fairness that institutions involve faculty in discussions.

Brian Fulton of the University of York described Project Juno, a certification process for UK university physics departments since 2007 that ensures they are tackling or have addressed issues that create gender imbalance. The project is run by the UK’s Institute of Physics (IOP), which has given it strong credibility, with 75% of physics departments in the UK signed up. The Netherlands has instituted a similar program that includes industry as well as academia.

Project Juno’s core principles emphasize the need for dialogue, transparency, and openness and a good organizational structure to address the issues. There are three levels of certification: a Supporter agrees to the principles, a Practitioner has gathered evidence and provides an action plan to address the issues, and a Champion has embedded the principles. The IOP provides support to departments, collects national data for comparison, and produces good-practice guides. A modest increase in the percentage of women at the highest levels has been seen over the five years Project Juno has been in operation, but the more noticeable outcome, according to an independent review [1]

has been an improvement in the workplace climate, transparency of appointments and promotions, gender balance on committees, and more open discussions of equality issues.

Akira Ejiri of the University of Tokyo presented data from the third survey, conducted in 2012, of the science and engineering societies of Japan around the question of work–life balance [2]. He looked at data on how many hours people worked, both in the university and at home, broken down by gender, age, seniority, marital status, and number of children. One of the many interesting results showed that having children reduced the number of working hours (both home and office), but the reduction was much more significant for women, especially those with pre-school children.

Research has shown that mentoring matters, particularly to women. Anne Cox of Eckerd College in Florida spoke about a peer mentoring group she is part of, to connect isolated senior women faculty at small institutions in the United States. The group was supported by a National Science Foundation grant, “Peer Mentoring: Horizontal Alliances,” when it was set up seven years ago. The group was geographically spread out, so the grant covered an initial in-person meeting at a conference. Members continued to communicate with conference calls every two weeks and an annual in-person meeting. As the group bonded, their topics of conversation expanded from technical physics into professional and family concerns. They commit to the network, blocking the time in their calendars at the start of each academic term. They found that having the credibility of a national organization was valuable. The group still continues its fortnightly Skype sessions, despite the funding having ceased.

Seema Ubale described a group she set up in 2013 in central India, the Women in Physics in Nagpur Google group. It was set up to network and work for the popularization and propagation of physics among students, girls in particular. Dr. Ubale also carried out a survey of women who had studied physics to at least a bachelor’s degree but who were no longer working in research or physics education. Of the 28 respondents in eight sectors (e.g., industry and government), 65% want to reestablish their link to physics. Using local and microlevel networking to create a critical mass, Dr. Ubale has been able to strengthen the women in physics community in central India.

## **AWARENESS OF THE INTANGIBLE ENVIRONMENT**

Igle Gledhill explored various aspects of our working environment, including intangibles such as (1) the imposter syndrome, which is more prevalent among women; (2) the dean’s dilemma (e.g., “Why take on admin work?”); and (3) showcasing, where one woman ends up on many committees. Making the distinction between schemas and stereotypes (negative schemas), she introduced a dichotomous pair of schemas: agentic and nurturative. Workplaces tend to be agentic (proactive, independent, assertive), which we perceive as professional. Being in the minority in a workplace increases the probability of encountering contradictory schemas. We need to develop an awareness of our own schemas and challenge them. It is useful to be aware that prejudice rises during times of threat and, once it is in place, it lingers much longer than the threat does and is hard to shake off.

Research has shown that a stranger introduced to an environment will assume that a person with advantage is inherently better, whether that is the case or not. Once advantage and disadvantage have been established, the gap tends to widen. Dr. Gledhill encouraged us to test our hypothesis, namely, “I am/am not being treated unfairly/fairly,” and to examine the data critically. As well as raising a dissenting voice, it is our obligation to listen to the dissenting voice. The object is to build an environment in which concerns can be raised and addressed: not a culture of prejudice and conflict but one of exchange of ideas, critical thinking, and constant improvement.

## **RECOMMENDATIONS**

Countries are already taking major steps toward awareness by gathering data and presenting it at the IUPAP International Conferences on Women in Physics. There are many examples of good practice to improve the workplace environment around the world. The recommendation resulting from the Improving the Workplace Environment workshop was for the IUPAP Working Group on Women in Physics to begin collecting good practice examples, making them available to member societies via the IUPAP website. Of particular use would be to highlight low-cost, practical implementations. One practical suggestion was for individuals giving scientific talks to offer a “double feature,” whereby they give both a scientific talk and a “how to keep women (and men) in physics” talk. The interest in the Juno Project led to suggestions that IUPAP investigate a Juno-like certification process for its member societies.

## ACKNOWLEDGMENTS

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## REFERENCES

1. *Evaluation of Project Juno: Summary of Final Report* (Institute of Physics, London, 2013), [http://www.iop.org/policy/diversity/initiatives/juno/juno-evaluation/file\\_62013.pdf](http://www.iop.org/policy/diversity/initiatives/juno/juno-evaluation/file_62013.pdf).
2. A. Ejiri, “Analysis of office/laboratory staying hour and home working hour of Japanese scientists and engineers,” *Proceedings of the 12th Asia Pacific Physics Conference (APPC12)*, [JPS Conference Proceedings](#) 1, edited by M. Sasao *et al.* (The Physical Society of Japan, Tokyo, 2014), 018004–018007, doi:10.7566/JPSCP.1.018004.