

Karen Messing, the woman who could walk through walls

Born in 1943, this American-Canadian researcher specialising in women's occupational health has transformed the attitudes of European researchers and trade unionists to gender issues. Her influence can be felt in France's "Law on real equality between women and men" of August 2014. It is no accident that Karen Messing lives in Montreal, a city that, culturally speaking, lies midway between North America and Europe. She is a woman who transcends borders and disciplines, a geneticist turned ergonomist who shifted her focus from genes to gender.

Emmanuelle Walter

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Even in retirement, Karen Messing remains deeply involved in the movement for gender equality. In March 2015 she took part in the ETUI conference on Women's Health and Work.
Image: © Rémi Leroux



Her beautiful face is reminiscent of the American singer Joan Baez. She is a native English speaker but is fluent in French. Karen Messing is a journalist's dream: in her books and when she speaks, she has a happy knack of making complex concepts accessible and, without prompting, she volunteers stories from her own life along with her scientific musings. Over a cup of coffee in her bright Montreal apartment, she recounts the key moments that have shaped her priorities.

At the plant with Daddy

Springfield, Massachusetts, 1948. A smartly dressed 5-year-old New England girl walks wide-eyed around the radio manufacturing plant where her father works as a manager. She observes the women as they solder blue, red and yellow wires. Soon enough, they let her play around with them. When she sits down with her father in his office, she asks: "Don't the ladies find their work boring?" Her father answers: "No. They aren't as smart as you, Karen". The little girl was intrigued. "How could adult women be less intelligent than I was? That story stayed with me. Intelligence was a concept that carried a lot of weight in our family. A lot of comments were made on the subject." Some of those comments came from her mother, an artist and painter and also a communist, at a time when that was not something one bragged about. "As progressive and anti-racist as she was, my mother sometimes implied that our black cleaning lady was not as intelligent as we were. Later, I discovered how many jobs

considered to be unskilled actually require great intelligence."

At the cafeteria in Springfield

That same dapper New Englander is now aged 17 and studying social sciences at Harvard. It is Christmas. She is walking through Cambridge, the small town near Boston where the university is based, with her boyfriend and another young couple. They happen upon a nativity crib and promptly steal the baby Jesus and the ox. After being reported by some pious soul, Karen and her three friends are suspended from Harvard for an entire session. Returning to her parents' home in Springfield, Karen finds a job as a waitress in a cafeteria. "There, I discovered just how hard it is having to take

three orders at once, pass them on to the cooks and bring out the dishes at the right time, with the right condiments, to the right customers! It's a real cognitive challenge. While my socially disadvantaged co-workers juggled four orders, I struggled to serve two customers at once."

Being a single parent

Karen was 20 when she gave birth to her first son. While breastfeeding she read *The Feminine Mystique* by feminist writer Betty Friedan, a book that argued, among other things, that women were, alas, afraid of science. Two years later, having moved to the buzzing post-Quiet Revolution Montreal, a city she had fallen in love with at first sight, she took up the challenge, studying

"Women who clean are the forgotten figures of the world of work. They are the quintessential invisible workers."

chemistry, biology and genetics at McGill University. In the 1960s, though, nothing was simple for a freshly divorced young mother of two with no support. "I got a scholarship, but the university couldn't cope with my single-parent status. I had to leave the lab at fixed times even if the experiment wasn't finished. I had to stay at home when the boys were sick. I had also started living in a commune. People were aware of that and they didn't approve! There was a lot of contempt for poor, single mothers at the time."

Meeting radiation-affected workers

1976. Karen began to teach biology and genetics at the University of Quebec at Montreal (UQAM). In French. Her research focused on mosquito control using mushroom stalks. But in 1978, her hidden social vocation emerged once more. As part of an unprecedented scheme enabling trade union organisations to enlist the help of researchers to shed light on occupational health issues, she found herself talking to workers from a phosphates plant. The workers were worried about the effects of radioactive dust on their health, and Karen confirmed that radioactivity could adversely affect their chromosomes. "The trade union rep said to me, 'So, my daughter's problems could stem from my work?' Oops! I suddenly woke up – I wasn't in the classroom and I should have expressed myself more carefully, writes Messing in her latest book, *Pain and Prejudice*¹. (...) Of the six men around the table, four had children. Each of those four had a child with a major health issue, from a cleft palate to club foot."

What happened next was character-building. Karen was unable to persuade experts in the field to come to the aid of a trade union, nor could she convince the plant's management of the danger. Forty years later, Karen Messing's eyes well up when she talks of how powerless she felt. "I take consolation from the fact that the plant's managers ended up agreeing to install a ventilation system to absorb the radioactive dust, in exchange for our leaving. They couldn't stand us hanging around anymore." This head-on encounter with real life was decisive. From her lab at UQAM, Karen Messing would now devote herself to occupational health.

1. Messing K. (2014) Pain and prejudice, what science can learn about work from the people who do it, Toronto, Between the Lines.

With Ginette, the crying woman

1985. A woman bursts into tears in the cafeteria of a Montreal hospital. Opposite her is Karen Messing, who has just spent a year at the hospital studying the effects of radiation on female radiographers and has discovered that posture, stress, exposure to germs and working patterns are just as damaging to their health, if not more so. Ginette is a cleaning lady at the hospital and a union representative. She is exhausted. "She was suffering from musculoskeletal disorders, contemptuous treatment and an ever-expanding workload. She and her co-workers had gone from cleaning one storey a day to two and a half! It's a job where the only thing you can take pride in is making sure the premises are clean for the patients. They didn't even have that satisfaction anymore." This was another key moment. Karen Messing wanted to be able to do something more concrete to help these suffering, overwhelmed workers.

On the train with Nina

Ergonomics: "The scientific study of the interaction between human beings and their

What has Karen Messing taught you?



Silvana Salerno, public sector occupational health officer in Italy

"To deal with gender as part of ergonomics and occupational health, disciplines that are still hostile to the subject! To analyse women's working conditions in order to change them. To challenge the supposedly 'light' nature and the invisibility of women's tasks. To criticise blind science that refuses to analyse the specific characteristics of women."



Carole Gingras, head of the 'status of women' department of the Canadian trade union *Fédération des travailleurs et travailleuses du Québec* (FTQ)

"That a researcher can be a great scientist while also being very available to workers and trade unions to listen and/or observe. Karen Messing has always endeavoured to make the results of her research work accessible so that they can be used by people in the field. She has enabled us to develop winning strategies."



Laurent Vogel, researcher at the European Trade Union Institute (ETUI), Brussels

"That it was possible to link gender equality demands with the struggle for healthy working conditions. For a long time, the implied reference subject monitored in occupational health was a male worker. Consequently, prevention measures were weaker and less effective for female workers."



Sandrine Caroly, lecturer in ergonomics at Université Pierre-Mendès-France, Grenoble and coordinator of the International Ergonomics Association's European 'Gender, Work and Health' group

"She has changed our way of analysing women's working activities: we now use different occupational exposure limits for men and women, and have implemented different control strategies to tackle the difficulties women face at work and protect their health."



Florence Chappert, head of the 'Gender, Health and Working Conditions' project at the French National Agency for the Improvement of Working Conditions (Anact).

"To adopt an 'all other things being unequal' approach (which contradicts France's apparent egalitarianism) instead of the 'all other things being equal' approach used by epidemiologists! Women and men are not in the same jobs, do not do the same work and do not have the same career paths. She has also taught us to be very concrete, using quantitative and qualitative data so as not to fall into militant or essentialist discourse."

working equipment, methods and environment"². Inspired by a colleague who trained in France, Messing decided she wanted to get to grips with this science in order to make tangible improvements to the working conditions of Ginette and her colleagues. She spent 1990 at the *Conservatoire des Arts et Métiers* in Paris. The subject of her field study was a certain Nina, who worked at Gare de l'Est railway station in Paris. The young woman cleaned 200 toilets on suburban trains every day, lugging around heavy and unsuitable buckets while doing so. Karen spent several months observing her (Nina walked 23 km a day and spent 60 to 120 seconds on each toilet), admiring her strategies and dexterity. She drafted recommendations for the SNCF and its subcontractors to make the work less punishing. In the year that followed, with these new skills under her belt, Messing received an award for interdisciplinarity and became an ergonomics researcher in Canada. "It's all thanks to Nina, really! Two years later, I met up with her again in Paris. She still had her too-heavy blue bucket. None of my recommendations had been taken into account... just like at the hospitals in Montreal. Women who clean are the forgotten figures of the world of work. They are the quintessential invisible workers."

With "the invisibles"

From that moment on, women working in the service sector – waitresses, cashiers, cleaners – became a central concern for Karen Messing, for CINBIOSE, the interdisciplinary research laboratory focusing on well-being, health, society and the environment, which she co-founded in Montreal in 1990, and for her research partnership with trade unions, the rather neatly titled *L'Invisible qui fait mal* ["the Invisible that Hurts"]. The idea is to show that these jobs are trying and in no way "light". And to show that it is possible, through ergonomic research, to "feminise" traditionally male occupations. "How can we feminise all jobs while taking account of women's specific physiological and social characteristics? Some feminists consider that a discriminatory question, and I can see where they are coming from," says Messing. "But we have observed people working as mechanics for heavy machinery,

as telecoms technicians and as landscape gardeners, and we found that if these occupations are feminised without any adaptation of the posts or training of the existing male staff, women are quickly sidelined, be it due to the difficulties they encounter, through harassment or through workplace accidents. Women shouldn't have to choose between equality and health. Thinking about gender also raises questions as to why men are expected to do extremely dangerous tasks simply because they are men!"

Trade unions, the Supreme Court, the UN...

With a brand new approach to the status of women in the workplace, the creation of a unique partnership between researchers and trade unions, and the use of empathy as an analysis tool, the work of CINBIOSE and Karen Messing has proved its pertinence and now permeates global research. Nine university chairs directly inspired by her work have been created in Canada. The book *Integrating Gender in Ergonomic Analysis*³, which she edited, has been translated into six languages. Messing drafted the WHO's first guidance document on the topic of "gender and occupational health". Her work has been cited in judgments of the Canadian Supreme Court. She founded the International Ergonomics Association's "Gender and Work" technical committee. She directly influenced a French law passed in August 2014⁴, which obliges businesses to provide gender-specific indicators on health and safety matters. She has been showered with awards. Now aged 72, she continues to conduct research and write books...

Cycling with her five grandchildren

Cycling is a real passion for Karen. She and her partner are champions and regularly win races. This summer, while this article was being written, she was preparing to leave her chalet in the Laurentides (a mountainous region north of Montreal) for three days of biking with her grandchildren. It was apparent from her emails that, for her, this trip represented happiness in its purest form. ●

2. Taken from the definition adopted by the Fourth International Congress on Ergonomics (1969).

3. Messing K. (Ed.) (1999) *Integrating Gender in Ergonomic Analysis*, Brussels, European Trade Union Technical Bureau for Health and Safety (TUTB).

4. Law No 2014-873 of 4 August 2014 on real equality between women and men.