

# *Pain and Prejudice*

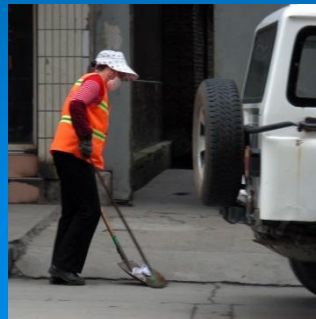


What Science Can Learn  
about Work from the  
People Who Do It

KAREN MESSING

# Why did I write it?

- Trying to make sense of my 35 years of research in OSH
- Exploring my own malaise as a highly-paid worker studying lower-paid workers and what that means for my own understanding of occupational health



# What is the book about?

## ➤ Part 1. Studies of workers

- Chapter 1. Factory workers
- Chapter 2. Invisible cleaners
- Chapter 3. Standing still (service workers)
- Chapter 4. Brains of low-paid workers
- Chapter 5. Teamwork
- Chapter 6. Home invasion
- Chapter 7. Teachers



# What is the book about?

- **Part 2. Science and workers**
  - (Chapter 8. Becoming a scientist)
  - Chapter 9. Pain and prejudice
  - Chapter 10. A statistician's toes
  - Chapter 11. Where I try to give a happy ending to an unhappy story, at the request of the publisher - about partnership research



# The message of the book



- It is hard for people who are not low-paid workers to see, hear or understand what their work is like or what effects it has
- Scientists are not low-paid workers
- For scientists to understand occupational health, it helps if there is a context that forces us to observe, listen and understand
- Partnership research can provide that context



# Partnership

- **1976 : University of Québec (Montréal) and the 3 major trade union confederations agree on research and training collaboration**
- **1993 : Agreement between CINBIOSE research center and the unions on research on women's occupational health**



# Chapter 1.

## Genetics and a factory, 1978

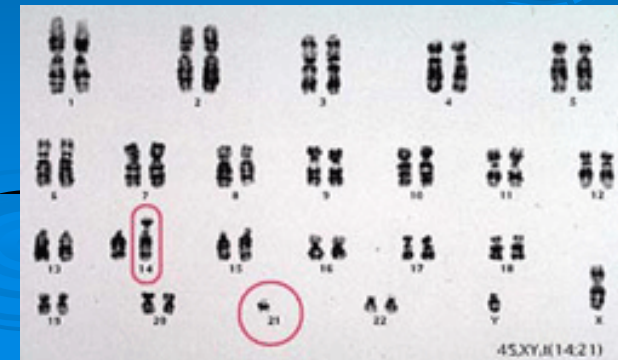
- Workers learn they are exposed to radioactive slag
- Scientists want nothing to do with the problem
- But UQAM has an agreement with the CSN union....



# Results



- I am a fungal geneticist but try to help
- We find some indications of gene damage
- The company installs new ventilation on the condition the union withdraw from the study.
- The company closes its doors in 1992; workers will never know whether their children's health was affected





# ...Chapter 3. Prolonged standing



- Nicole Vézina is asked to study Cashiers: Can they work sitting?
- They sit in almost all other countries
- She wins her case in 1989, but the workers are still standing



# Results (science)

- Despite many studies, science still worries primarily about prolonged sitting
- In North America, 45% of workers work standing more than three-quarters of the time; only 13% of them can sit at will

## Archives of Environmental & Occupational Health

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<http://www.tandfonline.com/loi/vaeh20>

## Reducing Sitting Time: The New Workplace Health Priority

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# Technical issues

- **1. Studies of sitting often compare it with “standing” without examining the standing posture more closely**

# What is standing?



- **Walking**
- **Static standing**
- **Leaning**
- **Crouching**
- **Stretching**
- **Carrying**
- **Bending...**



## 2. Adjusting for gender

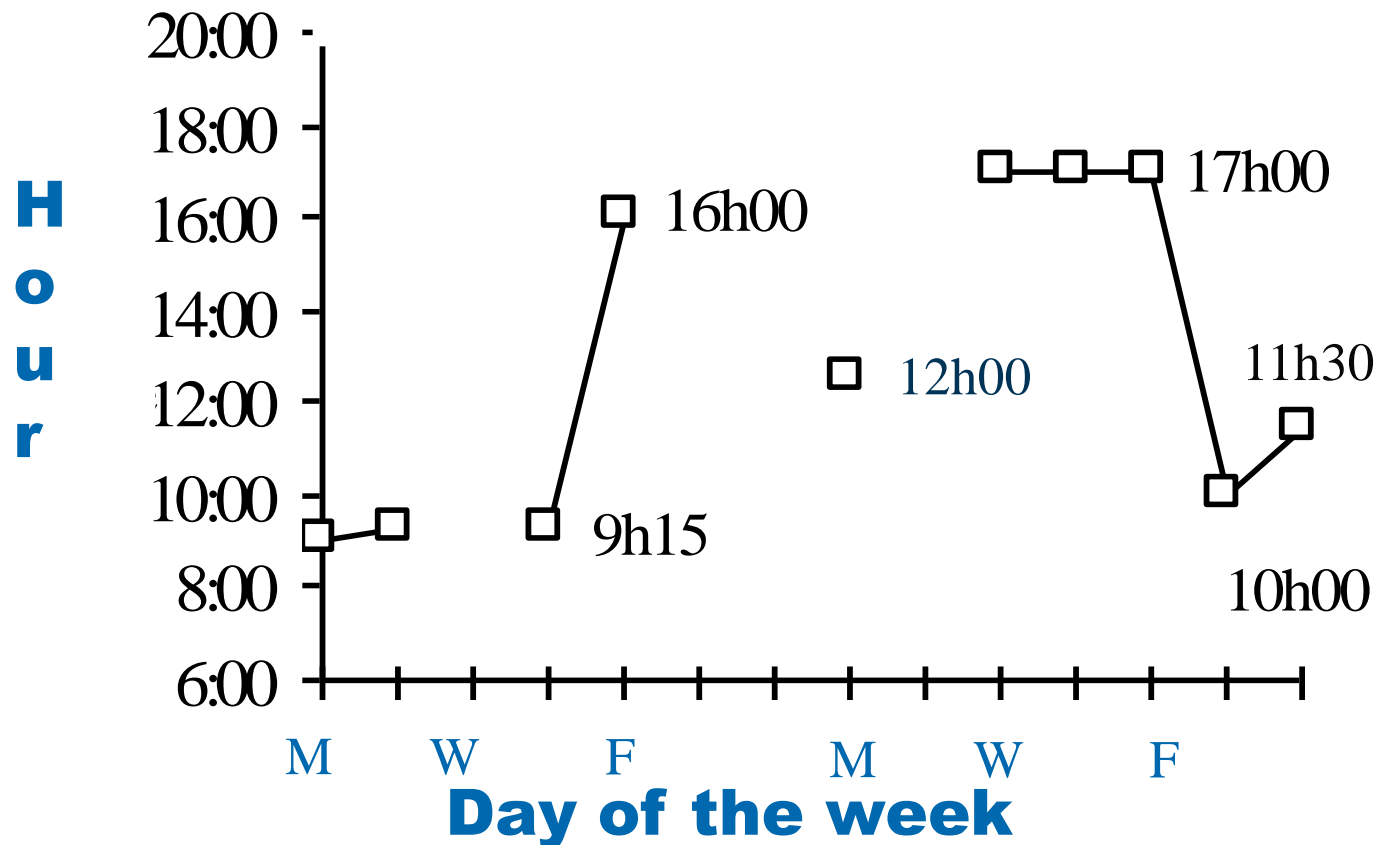
- **Women who stand are more likely to be static; men move around more at work**
- **Adjusting for gender without measuring static standing (very hard to do) can mean underestimating the effects of static standing**
- **Mixing standing and walking can make standing look better**

# Constraint

3. The notion of constraint can be important, since workers who are free to vary their working posture can protect themselves
- Many studies don't distinguish between constrained and unconstrained standing (or occupational and non-occupational postures), which can also underestimate effects of constrained static standing

## ...Chapter 6. Home invasion

Schedule of a telephone operator with 15 years' seniority, mother of children under 13



Hours  
posted  
Thursday



# ...Chapter 6. Home Invasion

- **Service-sector schedules are increasingly generated by computers in 15-min segments, closely related to sales data**
- **The resulting schedules are highly variable, extended, unpredictable**
- **Telephone operators, retail sales staff, industrial cleaners(FTQ) ask us for studies**



# Results

- Some full time regular jobs were created
- Employer said our study didn't have the "wow" factor and did not go on
- Worker says: I need to work more hours (for the family income) but I can't work more hours (because of family needs)
- Scientist says: **She should get another job**
- Most work-family studies are on highly-paid workers



# ...Chapter 8

## CINBIOSE

### research center

- Donna Mergler and I founded CINBIOSE in 1985-90 to do research on prevention in partnership with unions
- 80s and 90s: Several funding avenues opened up for community partnership
- We get lots of money from 5 federal and provincial partnership programs
- These programs have all ended

# Chapter 9. Pain and prejudice

- Workers report pain
- Some scientists believe them. Michel Vézina, Lippel, Stock et al. develop EQCOTESST to measure pain, show under-reporting
- Other scientists develop a theory of catastrophizing

Photo

Marie-Ève Major and Nicole Vézina





# Results



- The EQCOTESST study, despite peer review at many levels, was denounced by employer groups as unscientific and is downplayed by its funder Studies of catastrophizing receive a lot of scientific interest, no public criticism



EQCOTESST is defended by the CSN and CSQ unions

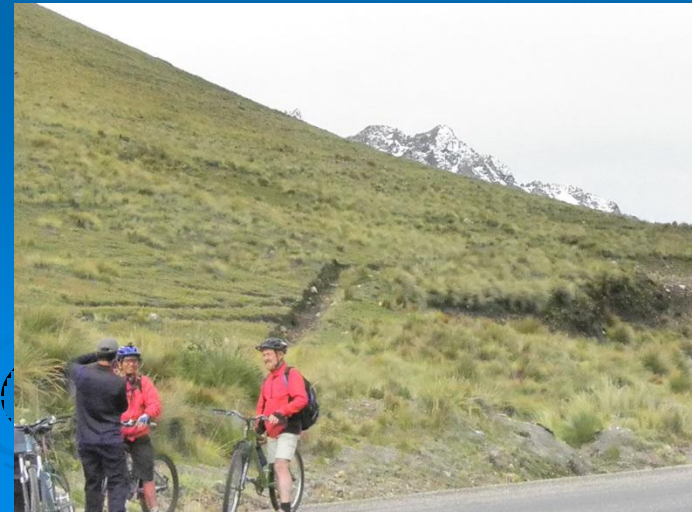


# Chapter 10.

## A statistician's toes



- Workers associate their pain with their work
- Scientists require certainty at 0.05 and sometimes 0.01, based on Fisher's toes
- I realize the injustice of this in Peru in 2012, during a bike trip



- These women and their compatriots paid for Pierre's shots because he had about 1 chance in 1000 of dying from rabies
- Canadian workers must have a much greater probability of damage ( $\alpha < 0.05$ ) before their work-related problems will be recognized and compensated



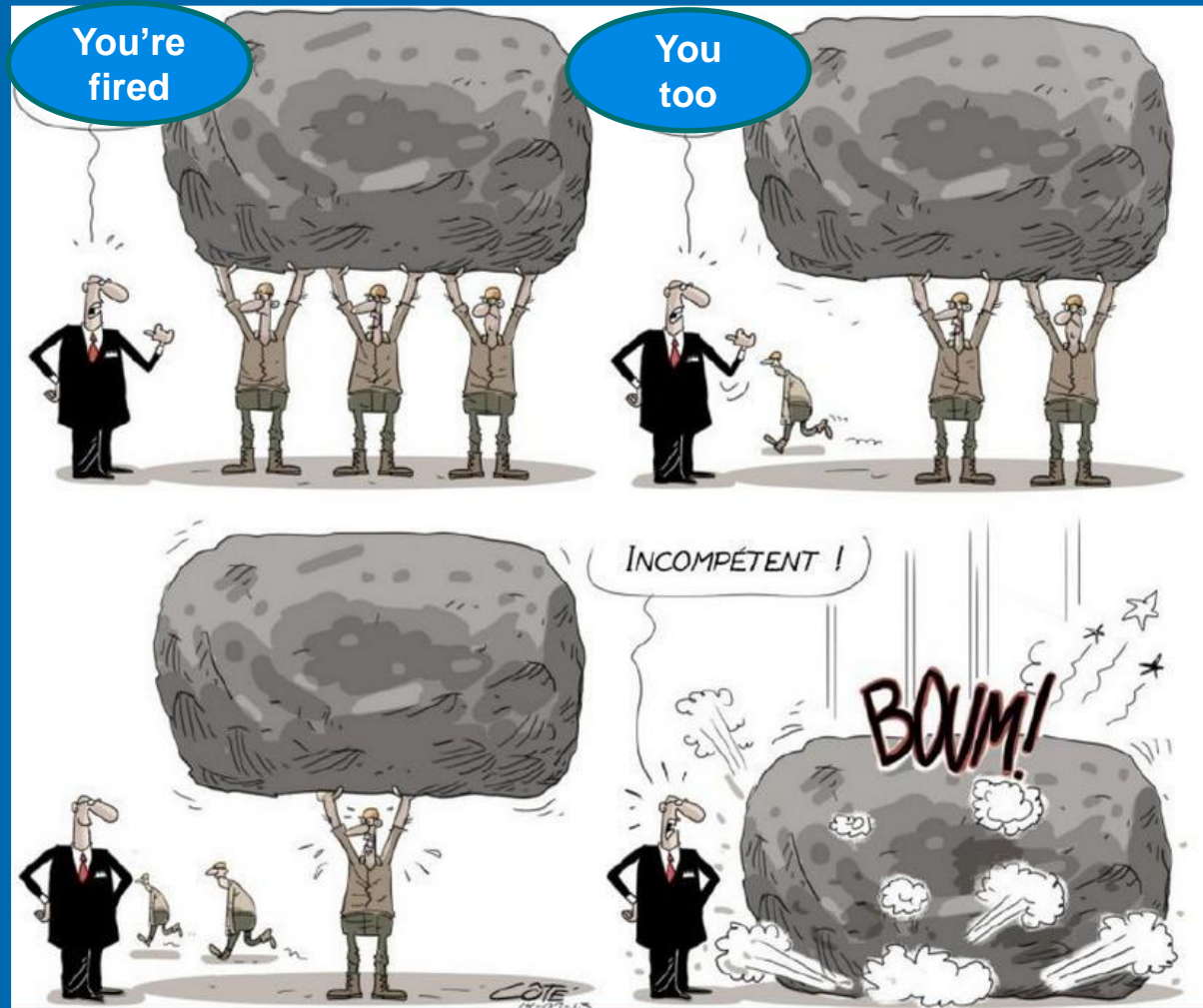
# Chapter 11.

## Partnership



- Supportive structures have been critical to maintaining our relationships with workers and enabling us to listen
- This has been good for our science: new questions, critical eyes
- Union women's committees, health and safety committees and community groups have also found our work helpful and have supported us

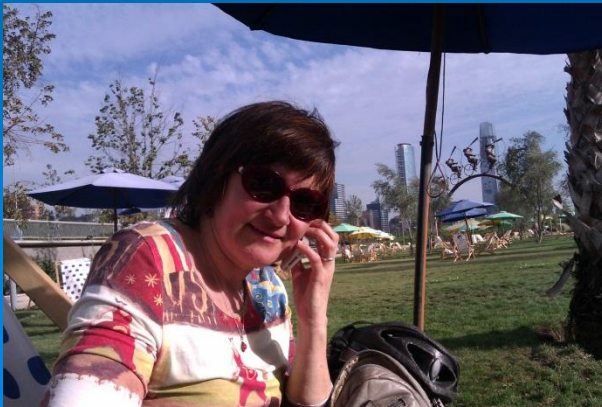
# But austerity is affecting occupational health and research



Credit André-Philippe Côté



- With many other progressive scientists, we have sometimes been successful in helping workers, in changing laws and practices, in helping science evolve
- Can this continue?



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