Canadian women crab workers: “empowerment” through ergonomics

Quebec ergonomist Marie-Eve Major, Doctor of Biology, has set herself a mission: the continual improvement of working conditions for seasonal workers. We followed her for three days around a crab-processing plant on the island of Newfoundland, on the east coast of Canada, and were thrown into a world of hardship and solidarity.

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Photographs:
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Day one

It takes two planes to reach Newfoundland from Montreal, a day-long journey that transports us into a completely different world. We land under the grey and low-hanging sky of a winter that refuses to end. Crab season has just begun and will last four months. To accompany Marie-Eve Major to Newfoundland is to discover the island at its least touristic and most rugged, and to experience first-hand the lifeblood of this large landmass on the Atlantic: the fishing industry. It means being welcomed with open arms, as we are this Sunday in April at Gander International Airport by crab worker Kate, 53, who regards Marie-Eve as her daughter. This hidden world we are entering is full of warmth but unfortunately marred by the severity of its working conditions. Between 2004 and 2007, Marie-Eve carried out her doctoral research with workers at two Canadian crab plants: one in Quebec, in Côte-Nord, the other in the Newfoundland village of Valleyfield. The work for her thesis was anything but solitary. “It was a research intervention, carried out in close collaboration with the workers and the management of the two plants,” explains Marie-Eve. “My work was also supported by a group of trade unions, organisations and companies that take an interest in my approach. The thesis may be finished, but the work continues! It’s a repetitive process. In each plant, there is a monitoring committee made up of representatives of workers, unions and management. We get together regularly to see how we can improve the working conditions. Here in Valleyfield, the ‘conveyors’ (the production lines) were modified in light of my observations and the work of the monitoring committee. At the Quebec plant, the management changed every one of them. And the health authorities of Côte-Nord hired an ergonomicist.”

The purpose of this latest in a long line of visits? To make a start on a new research project with one of her students from the Université de Sherbrooke (Quebec), Claudi-Ann Bourgeois. This time, the object of study is the impact of the employment insurance system

on musculoskeletal problems. The workers keep going despite the pain they suffer in order to make up the annual 420 hours needed to qualify for unemployment benefits. In Newfoundland, as everywhere in the north of Canada, the lack of local agriculture means that seasonal workers can only work part of the year. If they miss a season due to injury, it is not possible for them to make up the shortfall.

After travelling for two and a half hours through a landscape half-Irish (the rocky and craggy coastline, the dry expanses) and half-Canadian (the conifers and lakes), we find ourselves in Kate's white house, right on the waterfront and at the end of the factory car park. Lloyd, her husband, shows us pictures of another Newfoundland crab plant which recently went up in smoke. In this poor region where the sea is the only source of livelihood, this is a catastrophe. "That could have been us," says Lloyd, gesturing towards the large rectangular buildings where he spends his days. "I'm in the maintenance team; my wife is in production. If there was a fire, we wouldn't have any more work." The plant at Valleyfield provides a living to more than 300 workers, but also to fishermen and local trade. "This whole story started with the conquest of Newfoundland in the fifteenth and sixteenth centuries, Lloyd says with a big smile: "I'm happy that her work is being recognised. It's great what she has done for us." In the corridors, Marie-Eve has benefited indirectly from her advice and interventions with management.

Marie-Eve and Claudi-Ann have completed a first series of interviews with some of the workers. Kitted out like the employees in overalls and hairnets, all three of us enter into the heart of the plant and, in the cold, visit the different work posts: the tipping of the crabs onto the conveyor, the breaking into two, the sorting, the putting into containers for cooking, the weighing and the packing. There is also the position for removing the little shells that are attached to the legs, the one for sawing off the legs, and another for disinfecting them. Several Asian buyers circulate between the conveyors. The dexterity of the workers is fascinating. They talk among themselves without slowing their pace and sometimes all together burst into traditional Newfoundland songs (so I'm told). At the end of the shift, groups of women gather around the large sinks and plunge their overalls under water in choreographic movement.

Marie-Eve remarks: "On the face of it, the work does not seem very demanding; grabbing the crab pieces and depositing them in the container ... You wouldn't think that they are affected by pain. Some pressures are ‘invisible’, but they are real and lead to musculoskeletal constrictions. Our analyses helped to highlight the extreme repetition of movement. Their work cycle is less than five seconds long. This combination of movements and extreme repetitiveness, seemingly insignificant, actually causes a lot of pain." The women in these plants suffer from tendinitis, carpal tunnel syndrome, inflammation of the joints, epicondylitis, back and leg pain, and arthritis. If the factory management cooperate willingly with Marie-Eve, it is because they need productive and healthy employees.

We find Kate, dressed completely in white. Her work is to take hold of the full containers of raw legs washed in soap and send them off to the disinfectant bath. It is a less demanding post than others she has known over the years, most notably putting the crabs into containers before cooking, and packaging them. "In 1999, the doctors told me that the cartilage between my right shoulder and arm had almost disappeared!" she recalls. Amid the loud din, she proudly tells Marie-Eve that she has asked her colleague, at the other side of the basin, to send her two containers at once in order to minimise her movements. She explains to me later: "Marie-Eve taught us to think about our movements, rather than just enduring the pain, and to ask for adjustments. When she filmed me, I looked at myself working and said to myself: ‘What can I change to improve this?’ For example, at one of my old posts, instead of pulling a crab piece towards me one at a time, the two of us cooperate willingly with Marie-Eve, it is because they need productive and healthy employees.

**Day two**

This plant, called Beothics, packages not only snow crabs, but also catfish, halibut, capelin and lobster. Charles is head of the "shipping and receiving" service at the plant. He showed me his world: the quay assaulted by ravenous seagulls, the fishing boats, the unloading of crabs that have arrived by truck from other parts of the island, the cold storage premises. Learning that I came with Marie-Eve, he says with a big smile: "I'm happy that her work is being recognised. It's great what she has done for us." In the corridors, Marie-Eve is assailed by hugs and warm greetings. Even the workers she has not collaborated with have benefited indirectly from her advice and interventions with management.

Marie-Eve and Claudi-Ann have completed a first series of interviews with some
time. I started to grab hold of several at once with both my arms resting on the conveyor. I worked that out myself, to limit the movements that are too close together and repetitive.” In North America, they call this capacity to take control of one’s own conditions of life “empowerment”. Here, it is empowerment through ergonomics.

**Day three**

It is the end of the morning. Brenda has just come out of the office where Marie-Eve and Claudi-Ann have been interviewing her. I follow her into the large hall where the workers take their lunch. Brenda is a beautiful woman of 63. It is her 39th season at the plant. I noticed her the day before at the conveyor: aloof, silent, efficient.

— “My job is to take hold of the containers of crabs and push them towards their cooking bath. I’ve also worked in packaging, quality control, cleaning…”

— “What has Marie-Eve being here brought you?”

— “Her work has changed a lot of things! It’s the third time that I’ve collaborated with her…”

— “I heard you laughing together…”

— “Laughter is the best medicine! Thanks to Marie-Eve, management has improved my post by putting the surfaces that I place the container on (which weighs 15 kilos) at the same level so that I don’t have to lift up from one to another. They also enlarged the little platform that I stand on so I can move about more, which stops me having to stretch out my arms. Now, I take far less medication.”

Brenda returns quickly to her post. She is part of the day team, the women aged between 45 and 65. At the end of the afternoon, I see women in their twenties and thirties arrive who will work up until midnight. The work situation in the region will possibly push them towards the tar sands of western Canada, where many young Newfoundlanders work in the oil mines.

That evening, Kate and Lloyd take us to visit a charming little village, 15 kilometres from their own. Nestled among the fishing boats and brightly-coloured wooden houses that perch on the rocks is another Beothics plant, this one a miniature version. A small late iceberg floats into sight.

**Day four**

It is snowing when we leave Valleyfield. A storm has grounded all flights and we will arrive two hours late in Montreal. Marie-Eve protests and buries her head in her computer. I steal 30 minutes from her to complete my notes. What is her impact? “The management at the plants are very open to my observations and take them into account. I notice that the theme of occupational health has entered into their discourse. But the musculoskeletal problems, even if they have been reduced, aren’t disappearing; among other reasons because the injured workers don’t take sick leave, due to the lack of compensation. I would like to set up some roundtables with the government, trade unions and occupational health and safety committees to give this situation some more thought.”

It is midday. At the plant, Kate and Brenda will soon take their break. We board a plane so tiny that it shakes in the wind.