JOB STRESS REVISITED

A THOUGHT PROVOKING TAKE ON MENTAL HEALTH AND WORK

QUENTIN DURAND-MOREAU, MD

WILEY

Job Stress Revisited

Job Stress Revisited

A Thought Provoking Take on Mental Health and Work

Quentin Durand-Moreau, MD

WILEY

Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
Published simultaneously in Canada.

The manufacturer's authorized representative according to the EU General Product Safety Regulation is Wiley-VCH GmbH, Boschstr. 12, 69469 Weinheim, Germany, e-mail: Product_Safety@wiley.com.

Library of Congress Cataloging-in-Publication Data applied for:

Paperback: 9781394268283

Cover Design: Wiley
Cover Image: Courtesy of Quentin Durand-Moreau

Set in 9.5/12.5pt STIXTwoText by Straive, Pondicherry, India

Contents

Introduction

Several years ago, a company decided to assess the level of stress in their workforce. They distributed questionnaires to workers. People responded massively. The results were concerning. Most workers were highly stressed. That's a pretty common situation.

What's less common is how this company was willing to address it. Would they provide relaxation workshops? Increase staffing to reduce the workload?

Certainly not. Instead, they aimed to fire every single worker who admitted to being stressed, thus solving the company's job stress issue. Efficiency at its finest.

This half-fictional story is inspired by true events. In reality, no workers were actually terminated, but the company had a lot to do to mitigate what became a public relations disaster. Some workers had a hard time understanding that this was some sort of April fool's joke.

You can probably relate to this story. First and foremost because it is about workers, and you either currently have a job, are looking for a job, are getting trained for a job, have retired from the workforce, or are job-deprived (whether that is because you have lost your job, or because no workplace is accommodating your specific needs). Virtually all of us, at some point, have some sort of work relationship. And this relationship affects us. We have good experiences at work, but also terrible ones. Work can help us thrive, but it can also be destructive. It can be both positive and negative for our health, and our mental health in particular.

Work can be a stressful experience indeed. According to Statistics Canada, 21.2% of all employed people reported high or very high levels of work-related stress in 2023.[1] The American Psychological Association conducted a survey in

1 Statistics Canada. *Work-related stress most often caused by heavy workloads and work–life balance*. Available from https://www150.statcan.gc.ca/n1/daily-quotidien/230619/dq230619c-eng.htm (accessed on January 2, 2025).

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition.
Quentin Durand-Moreau.

2023 showing that 77% of workers reported work-related stress in the last month.[2] Overall, it is more likely than not that you have personally experienced job stress. This also means that you certainly have developed some knowledge about that, or strategies to deal with it.

Many of you can also relate to that employee survey story because you may have already filled out an employee satisfaction survey yourself. You may have thought of some questions about it. Was it safe to fill out this questionnaire? Was my information really kept anonymous? If so, why have I received a personal reminder from my supervisor telling me "*by the way, I can see you have not filled out the anonymous survey*"? Are these surveys going to change anything in my working conditions? Are they worth my time?

The topic of job stress should be of interest to everyone. However, I have rarely been satisfied with how this topic is dealt with. Simplistic solutions (e.g., pizza parties, mandatory 7 am relaxation workshops, or e-learning modules on harassment) are more common than the identification and correction of systemic root causes of job stress, residing in work issues. Victim blaming is too common ("*these workers have personal problems*"). This often comes along with the traditional paternalistic educational approach of teaching them good practices (whether it is conflict resolution or leadership skills training). Naturally, if workers are feeling so bad in workplaces, it is because of some sort of personal deficiency, a lack of knowledge, or a skill that needs further development. Nothing that a good training session with a coach will not address, right?

None of this is exciting to me, and I suspect that many of you feel exactly the same: bored and frustrated with the way we address job stress in workplaces.

That's why I thought it may be time to revisit this topic: let's revisit job stress together.

I would like to spend a bit of time explaining to you why my experience could be relevant in this context.

I am an occupational medicine specialist, practicing for more than 10 years now.

Most people do not know what occupational medicine is. And among the few who think they know, many would confuse us with occupational therapists! But it's not the same. Occupational medicine specialists are physicians. Basically, our area of expertise is any connection between work and health. We help workers with health issues to enable them to stay at work, or return to work, by designing the right accommodations for them. We can also help them find whether their health problem is work-related, and help them obtain workers' compensation coverage. At that stage, you might think that we deal with asbestos, benzene,

2 American Psychological Association. *2023 Work in America Survey*. Available from https://www.apa.org/pubs/reports/work-in-america/2023-workplace-health-well-being (accessed on January 2, 2025).

silica, or repetitive strain injuries (or musculoskeletal disorders) and you would be right. However, occupational medicine specialists also look at the psychological side of health. Health is not a topic that should be split into physical versus psychological. Instead, dealing with work-related mental health problems is a core skill that all occupational medicine specialists are trained in.

I started my independent practice in France, at the University Hospital of Brest, providing occupational medicine services for the hospital staff, and practicing at the Occupational Disease Center, an outpatient clinic for workers referred by other occupational medicine specialists in the community, looking for expert opinions. I was the director of this center between 2018 and 2019. My activity included a lot of work-related mental health assessments. In fact, 40% of my total work time was dedicated to this topic from 2013 to 2019. I have assessed more than 400 patients, mostly to determine their fitness for work in the context of a mental health illness, or whether their mental health condition was work-related, in which case I helped them obtain workers' compensation.

During that period, I decided to gain additional skills on top of my occupational medicine specialty training. I completed a number of courses in work psychology provided by the *Conservatoire National des Arts et Métiers* (CNAM), based in Paris.

While I was working in France, I wrote a number of publications concerning work-related mental health issues and spoke at a number of conferences. I became an expert in work-related mental health. I was interviewed by the French National Assembly about burnout in 2016.[3] I have been one of the experts writing the guidelines on burnout for the French National Authority for Health (*Haute Autorité de Santé*)[4] and a member of the group working on the permanent clinical impairment adjudication guide for occupational mental diseases for the French Social Security.[5]

From 2018 to 2024 I have been one of the co-chairs of the scientific committee dedicated to the study of psychosocial factors and risks (Work Organization and Psychosocial Factors, WOPS) at the International Commission on Occupational Health (ICOH). In 2024, I was elected a board member of the ICOH. In 2022, with my colleague Gérard Lasfargues, emeritus professor of occupational medicine at

3 Assemblée Nationale. *Rapport d'information déposé par la commission des affaires sociales en conclusion des travaux de la mission d'information relative au syndrome d'épuisement professionnel (ou burnout)*. Available from https://www2.assemblee-nationale.fr/documents/notice/14/rap-info/i4487#P1344_343870 (accessed on January 6, 2025).

4 Haute Autorité de Santé. *Fiche mémo. Repérage et prise en charge clinique du syndrome d'épuisement professionnel ou burnout*. Available from https://www.has-sante.fr/upload/docs/application/pdf/2017-05/dir56/rapport_elaboration_burnout.pdf (accessed on January 6, 2025).

5 Durand-Moreau Q, Baro P, Jay F et al. Update of the permanent clinical impairment adjudication guide for occupational mental diseases in France. *Safety and Health at Work* 2022; 13: S294.

Université Paris-Est-Créteil (France), I coordinated a collective book specifically on the links between management and occupational health issues.[6]

In 2019, I took a position as assistant professor of occupational medicine and residency program director at the University of Alberta in Edmonton (Canada), more than 6800 km from France. Since then, I have been practicing as an occupational medicine specialist at the Occupational and Environmental Medicine Clinic at the Kaye Edmonton Clinic, on top of my other academic activities for the university.

As I arrived in a new continent, a new country, a new province, I realized that the approach to work-related mental health issues in North America, and in Canada in particular, was totally different than what I had experienced in France. France is literally obsessed with work. There are dozens (not to say hundreds) of academics specialized in work-related mental health issues. Comparatively, this topic is of lower interest in North America. Additionally, I realized that most of the references I had been trained with, and that helped me shape my vision of work-related mental health issues, were in French, and not available at all in English. There have been a lot of extremely interesting and valuable contributions published over 70 years in this field: it is too bad that not many of them are shared with English-speaking readers. Finally, as I have reached more than 10 years of practice in the field of occupational medicine and gathered a lot of knowledge and experience in bits and pieces from many different places, I thought it was a good time for me to sit, pause, reflect, summarize, and make sense of what I have learnt so far.

This book is the result of the journey I undertook to try to better understand the links between mental health and work. I would like to share these reflections with you. Rather than asking you to necessarily agree with all my positions (some of which are quite controversial), I would like you to take this book as an opportunity to stimulate your critical thinking. To see things from a different perspective, a new angle, and ask yourself new questions. I am hopeful that it will help you be more critical, and hopefully a great advocate, so we can collectively make significant progress in this regard.

This book is not going to give you any ready-made or one-size-fits-all miracle cure to solve the problem of job stress. If that is what you were looking for while you are scanning the first few pages in the bookstore or the library, maybe it is not too late to put it back on the shelf. And if you are now stuck with it, well, I am sorry. I just hope that you can maybe give it a chance and see what our journey will look like.

---

6 Durand-Moreau Q and Lasfargues G. Entre management et santé au travail, un dialogue impossible? 2022. Toulouse. Editions Erès.

Even though I am an academic physician, and I would love my fellow occupational medicine colleagues to read this book, I have written it with the idea that anyone – any worker, any retiree, any student, any person – could read it. This said, I am not going to simplify things: there are already too many very simplistic books on the market for a broad audience. I am absolutely convinced that anyone can understand my thinking, and the theoretical underpinning, to develop a stronger idea with regard to psychosocial factors.

We are going to go through some theory, the thing that a lot of people love to hate. Being "practical" is so much more appealing. It may be that very same "practicality" that has led us to the boring pizza parties to fix job stress. Bringing in just a tiny bit of theory would immediately destroy this solution. Theory is nothing to be afraid of. I think that everyone – literally everyone – can understand basic theories in work psychology and occupational medicine (if I do a good job of explaining them). Some ideas and concepts I will explain in this book took me years to fully understand. Be reassured that all of these will be illustrated with examples, so you will be able to link them with the practical world of work. We cannot make substantial progress in our understanding of job stress if we skip that step.

In this book, I will focus on the connections between mental health and work. This means that I will leave aside a number of topics on which I do not feel sufficiently qualified to speak. These topics include concepts such as performance, motivation, engagement, workforce retention.... This is not to say that these topics are not important (they definitely are), or that there are no connections between these and mental health (there definitely are). However, these are more human resources-related concepts, rather than medical concepts. Mixing these with mental health outcomes brings a lot of confusion. And I am unsure that a physician like me is best positioned to discuss these and be relevant. There is a difference between making sure that workers are performant and productive, and making sure that workers do not get mentally sick because of their work. I can speak about the latter. Many other academics can speak about the former. Fewer can speak about both and be relevant.

This book is organized in three sections.

In the first section we define health and work. Too often, these notions are taken for granted. Even occupational medicine specialists do not necessarily spend a lot of time being very precise in the definition of work. However, there are a lot of consequences, especially for workers' mental health, that reside in the way their work is organized, whether they have a contract with an employer, work for a platform (what is called the gig economy), or have no contract at all, and are in the informal economy, which is extremely common in a lot of developing countries.

The second section is the largest. This is where we are going to explain a number of concepts. What is job stress? What is harassment? What is burnout? What is violence in the workplace? What happens when workers need to take drugs to

be performant at work? What are psychosocial risks? Some of my positions are controversial: be prepared that I will challenge the concept of burnout, for instance.

The third and final section is about solutions. What can we do to solve the job stress crisis? There is a specific chapter on what is called "positive psychology," which includes mindfulness and relaxation. How relevant are these methods in the workplace? The final chapter includes a review of the evidence on possible interventions, and a lot of elements to consider implementing in practice.

Let's dive in and revisit job stress together.

Part I

The Foundations: Clarifying What Health and Work Are

1

What Health Is

Let's start with the story of one of my patients, John.[1] He is late to his occupational medicine clinic appointment, but he eventually shows up. He is in his thirties. His lab results are not good. I am not easily worried by most urinary metal-testing results I review. In many cases, patients have "heavy metal screenings" outside of the best medical practices. Results are usually either totally fine or skewed because patients have been asked to take what we call a chelator, a molecule that is meant to trap metals, which artificially increases the metal levels and generates unnecessary anxiety for patients.

But for John, it is different. It is likely that there is something very wrong going on at his workplace. These results are strongly suggestive that he has important exposure to toxic metals, including arsenic. Arsenic is a substance known to increase the risk of lung and skin cancer. It gets quite serious.

So, I am meeting with him. He feels fine. He has no symptoms. He got tested because his employer told him to do so. That's it. He loves his job. He got a promotion two years ago. The pay is better, and there is no doubt he appreciates that in the context of inflation and the increased mortgage rates we had at that time. He tells me how he sticks to all work procedures: he brags a little bit and tells me that he is doing way better than the previous guy who was in his position. Each time I ask about potential issues with this complex industrial process, like leaks or broken equipment, he argues that as he follows all the procedures, everything is fine.

I am not convinced. The toxic metals he has in his body must come from somewhere. I am very skeptical, and it is getting worse as I am listening to him. As he describes the process in depth, I mentally pinpoint more and more sources of

1 For all individual cases mentioned in this book, I have systematically modified the name of the patient and identifiable elements to protect the patient's identity.

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition.
Quentin Durand-Moreau.

exposure to these toxic metals, and opportunities for these substances to contaminate the air, or splash onto workers.

John's life has not always been easy. He has used a lot of different substances in the past, but he is healing. He is now off everything, including tobacco. He struggled a lot with his mental health in the past, but he is doing much better now. He has several medications, including for his mental health; he has a follow-up with a therapist and great social support. In a word, his life is balanced now.

Clearly, I would prefer him to be in another job or going back to the unexposed (and less risky) position he was previously in. "*That's not gonna happen, doc!*" It's a family-run business. They have been good to him during these many years.

In a word, that's John's story: a worker who should absolutely quit their job but – at the same time – shouldn't.

Who Decides What's Health: Patients or Experts?

This story is our starting point, as we are about to discuss health. Back in the days, more than 20 years ago, when I was starting my journey at medical school in Nantes (France), our professor of public health and preventive medicine, Pierre Lombrail, provided us with the World Health Organization (WHO) definition of health: "*health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*."[2] It was one of those fundamental definitions that we really needed to memorize during our training.

That said, I have always struggled with this definition: *not merely the absence of disease or infirmity*. Why does the WHO seem to define health starting basically with a description of what it is not to have a disease? And then say, "*oh wait, by the way, it's not merely the absence of a disease*"!

It was years later – when I was studying work psychology in Paris – that I started to grasp what the problem is with this definition. I understood the difference between naturalism and normativism.[3] It is worth explaining that. The WHO definition is based on a naturalist approach (also called normalist). This means that criteria which define what good health is are decided by others, by a third party, by the WHO, by whoever, but not by the patient themselves. Health is seen as conforming to external criteria. Criteria that help qualify someone with a state of complete physical wellbeing, complete mental wellbeing, and complete social wellbeing.

---

2 WHO. *Constitution*. Available from https://www.who.int/about/accountability/governance/constitution (accessed on November 3, 2023).

3 Broadbent A. Health as a secondary property. *The British Journal for the Philosophy of Science* 2019; 70: 609–627.

Another approach to health has been theorized by Canguilhem, one of those authors that I studied in my first year at medical school and whom I vaguely remembered while studying it again, many years later. Georges Canguilhem (1904–1995) was a French philosopher and physician. I would not say that he is particularly easy to read or grasp, so I'll try to keep it simple. He had a normativist approach to health, summarized as follows: "*I am feeling well as I am able to be accountable for my own actions, to bring things into existence, and to make links between things that would not exist without me*."[4] Feeling well is certainly not just complying with external criteria. It is not even a state of wellbeing. According to Canguilhem, we can be perfectly healthy while not being in a complete state of wellbeing. I can have a disease, but still be accountable for my actions, bring things into existence, and make links between things that would not exist if I did not create them.

Alex Broadbent, a professor of philosophy of science at Durham University (UK), summarized the difference between naturalism and normativism as follows:[5]

> *Naturalists hold that health is objective and value-free, while normativists hold that health depends upon humans by depending upon their values.*

I generally use an illustrative example to explain that. Let's assume that your lifelong dream is to climb Mount Everest. Honestly, I would rather stay under the blanket on my couch while drinking a hot chocolate, but I respect everyone's dreams. The day you end up doing it, we can easily agree that it's helpful for your health – that you will likely be accountable for your own actions (you climbed that big hill yourself, and not someone else). However, it's likely that you're going to have frostbite, be short of breath, very painful, possibly sunburnt, and suffer from multiple other issues related to extreme conditions up there. You are not likely to be in a "*state of complete physical wellbeing,*" are you?

Richard Horton, Editor-in-Chief of *The Lancet* – one of the top-notch medical journals – wrote a piece on Canguilhem in the *Journal of the Royal Society of Medicine* in 1995.[6] His words can help clarify Canguilhem's views further:

> *Normality [or naturalism] is usually defined from limits derived from population data: e.g. "normal" laboratory values. This statistical definition*

---

4 « *Je me porte bien dans la mesure où je suis capable de porter la responsabilité de mes actes, de porter des choses à l'existence, et de créer entre les choses des rapports qui ne leur viendraient pas sans moi* » in Canguilhem G. *Écrits sur la médecine*. Le Seuil, Paris. 2002 (p. 68).

5 Broadbent A. Ibid.

6 Horton R. Georges Canguilhem: philosopher of disease. *Journal of the Royal Society of Medicine* 1995; 88: 316–319.

> *of normality implies that abnormality – pathology or disease – is simply an excess or a deficit of a particular variable (…) Yet Canguilhem categorically rejects such a view. He regards normality and health as being functional characteristics of the whole organism. He defines health as the ability of the organism to adapt to challenges posed by the environment, to create new norms for new settings. (…) Health for Canguilhem, "means being able to fall sick and recover." By contrast, "to be sick is to be unable to tolerate change."*

Health is not a complete state of wellbeing, but worse, health is first and foremost not a state at all. It is a dynamic concept. It changes over time. And health is unlikely to be divided into sub-topics (physical, mental, and social), looked at bit by bit to check whether it matches an external definition of "wellbeing." This goes along with the movement toward "deindividualization" of medicine, as explained by Richard Horton in another paper.[7] Globally, what we call "the medical world" has tried to find objective definitions, so it is operant to conduct research and provide evidence-based care. However, in doing so, we might have missed that each time we pick up certain characteristics to assess patients, we miss a significant portion of the overall picture. When we assess the efficacy of a blood-pressure medication by looking only at the blood pressure, we miss the subjective lived experience of what it is to have high blood pressure, and what it is to take this medication. When we look at the efficacy of a chemotherapy to treat lung cancer in terms of increased life expectancy, we miss the quality of life. And probably, even when we measure the quality of life using standardized questionnaires, we must acknowledge that they can only provide a partial view of health.

I am not the only one to be bothered by the WHO definition of health. Cara Kiernan Fallon and Jason Karlawish from the University of Pennsylvania also consider that the WHO definition implies that being healthy excludes having any disease.[8] They consider that seeing health through the absence of disease leaves behind the many people who have chronic conditions. Nowadays, many people are treated for diabetes, high blood pressure, or AIDS, and live a perfectly normal life. When asked if they have a health issue, they are likely to respond "*no*"! Fallon and Karlawish wrote that "*having a disease and feeling healthy are no longer mutually exclusive*."

---

7 Horton R. Offline: the silence of the organs. *The Lancet* 2012; 380(9846): 961.

8 Kiernan Fallon C and Karlawish J. It's time to change the definition of « health ». *STAT website* 2019 Available from https://www.statnews.com/2019/07/17/change-definition-health/ (accessed on November 8, 2023).

Judging Workers' Practices and Paternalism

Let's go back to the story of John. He presents with scary urinary metal testing. I would argue that he does not meet the criteria of a "*complete state of physical wellbeing*." However, he told me that he feels well, and he is healthy! My life as an occupational medicine specialist would be much easier if patients had the decency to agree with my vision of what's good for them and what's not. Unfortunately, patients and workers sometimes have different views of what's good for them, and what's not. Worse even, they may tell their doctor that they agree while screaming inside, "*I don't care about a single bit of what you say*." Worse even again, being a patient as well, I also (sometimes) disagree with my healthcare providers (but not often, I swear). I think of a dentist who once told me to stop drinking tea, as it was staining my teeth. Like John, I told him "*it ain't gonna happen doc*."

The concept of health is not the exclusive property of physicians or healthcare workers. Everyone is entitled to have their opinion on what their health is. Workers included. Unfortunately, that's not always translated into practice. Paternalism is still much too common in occupational health. We – occupational health professionals – are trained to know better than workers regarding their own health, their own safety. To know better than them how to behave. To know better what's good for them. In fact, this form of paternalism is not restricted to occupational health professionals, but it easily extends to anyone placed in a judging situation.

Let's take an example. Social media are full of videos showing workers obviously not complying with common expectations in terms of safety standards. These have very empathic titles such as "TOTAL IDIOTS AT WORK" for instance,[9] compiling dozens of short clips. These videos are not only about workers. Sometimes they also show people obviously outside of any professional context. But the common theme is that they display people injuring themselves, or in risky situations, for entertainment purposes. Because it's (apparently) fun to watch people being hurt. The videos may come with funny music or pre-recorded laughter on top, which makes them even funnier (apparently). So, you can look at a worker trying to fix a hydraulic trailer and placing himself underneath it. The way the video is built (the title including the word "idiot," the presence of funny music or laughter) places us in an easy judging situation. From the comfort of our couch, we're all set to judge him, out of any context, easily bringing us to the conclusion that, "*yeah, this guy is an idiot, not respecting basic safety rules*." Obviously, these videos fail to provide any context that may explain why these workers may come

9 I endured for you « TOTAL IDIOTS AT WORK 2023|Fail Compilation #135 ». Available from https://www.youtube.com/watch?v=lXj9HTDhx1Q (accessed on November 16, 2023).

to these extremities. We are driven to think of them as stupid individuals, failing to abide by commonsense guidance. In doing so, we integrate that safety is essentially a matter of setting up the rules and complying with them. Should this fail, it's the responsibility of these (idiot) workers who did not comply with the rules. Easy.

Doing walkthroughs in industry, visiting workshops accompanied by top executives, is not always a very different experience. The judgment setting is enhanced by a clothing differential: we may be face to face with blue-collar workers really wearing blue coveralls and white-collar workers really wearing white shirts. These experiences might be closer to industrial tourism (which is another form of entertainment) than real work analyses. In such situations, workers can sometimes be humiliated by occupational health and safety professionals, pointing out how wrong they are during the five and a half minutes they spend visiting the workstation where the worker has been 8 hours a day, 40 hours a week, during a 20-year career.

Demarcy's Workbench at the Citroën Car Factory

This phenomenon was very well described by the French work sociologist Robert Linhart in his book *L'établi* (*The assembly line*).[10] Born in 1944, Robert Linhart obtained a PhD in work sociology.[11] He ended up being appointed as associate professor in the department of philosophy at Paris VIII University at the peak of political, social, and societal changes that led to the events of May 1968, with huge strikes and demonstrations from students and blue-collar workers. This led to profound societal changes in France. It was in this context that Robert Linhart decided to get enrolled as a blue-collar worker in a Citroën car factory. He wrote *The assembly line*, where he describes his experience as a specialized laborer, working on the assembly lines of Citroën.

I am totally going to spoil it, so if you intend to read his entire book (which you should), I invite you to skip the next few paragraphs.

The last chapter is possibly among the my favorite pieces of literature about work. Robert Linhart describes the work of his colleague, Demarcy, the retoucher in charge of repairing 2CV (that's the name of the car) doors that were impaired during the assembly process. These car doors got bumps and defects: it was Demarcy's job to make them pristine again, so they could be used to build brand new 2CVs. The factory had a Taylorized[12] organization: methods experts decide

10 Linhart R. *L'établi*. Les éditions de minuit, 1978.

11 Robert Linhart's sister, Danièle Linhart, also became a very well-known work sociologist.

12 Based on management principles from Frederick Winslow Taylor.

how work must be organized. The less they consult with workers on the ground, the better it is, from their point of view.

One day, a method specialist noticed that Demarcy was working on an old workbench that was absolutely perfect for his job. He had adjusted it, improved it, modified it over the years. It really was a tool that made his job possible.

> *A white coat wandering around on inspection day may have winced at the sight of this do-it-yourself unorthodox workbench. What's that thing? And, in fact, if you watch Demarcy work for just two or three minutes, he seems to waste time tinkering with his bench, moving nuts about, adjusting the wedges. Obviously, if you watch for a long time you realize that all this is in order and that the retoucher uses his bench to excellent advantage. But the fellows from work-study won't spend hours at each work position: a few glances and they're certain they've understood. They've followed courses and everything, they know about the scientific organization of work!*[13]

All of this does not look great to the methods guy. It does not meet the quality standards. He gets the workbench changed. A brand new one is delivered to Demarcy. Anyone would think that he might have been happy to be provided with new material, right? Of course, he is not. He is totally devastated by this change. He is lost, unable to deal with the car doors. A couple hours later, there is a walk-through of the workshop. A group of white-collar workers has a look at Demarcy, ill-equipped with his new workbench that he cannot do anything with. As the entire group is scrutinizing him, he lets his hammer fall to the ground.

> *"For goodness' sake! What's all this muddle?" Bineau's voice, loud and angry, has cut short the old man's movement. For a second he remains bent, frozen in his posture, his fingers a few inches away from the hammer. Then he continues his movement slowly and comes up again shamefaced, while the director explodes and sputters. Bineau: "I've been watching you for a quarter of an hour. You're doing just anything! The best machines are no good if the man using them doesn't make an effort to understand their functioning and use them correctly. You're given a modern system, carefully perfected, and that's what you do with it!" Demarcy: "I don't know what's come over me sir, ... Perhaps it's tiredness... Usually..." Gravier: "Listen, old man, don't tell Monsieur Bineau your life story. You'd better listen to what he has to tell you and try to work correctly."*

13 Linhart R. The assembly line, translated by Margaret Crosland. 1981. London. John Calder.

The artificial setting of the walkthrough, the power differential... All of this is organized so the white-collar workers, wearing their hard toes and hard hats they use once a year, can judge workers with 20 years of experience. No matter what we can catch in a glimpse of a walkthrough, we are never going to spend enough time to capture everything that the worker does. One must be extremely careful with what walkthroughs bring. Ergonomist Jacques Duraffourg considered that we should look at work being "*humble, curious, and caring*."[14] That is probably a motto that anyone involved in a walkthrough should read prior to visiting workshops.

"Workers Are Not Morons!"

One of my mentors in occupational medicine was Jean-Yves Dubré. He had been working for many years as the occupational medicine specialist for a slate quarry, close to Angers (France). At the end of his career, he became an occupational medicine labor inspector. This position is similar to director of medical services for the ministry of labor but working at a regional level. I had my very last rotation, from May to November 2013, as a resident in occupational medicine under his supervision. Jean-Yves was a very respected physician, known for his expertise in work psychodynamics: I will touch on this later in this book.

In his job as an occupational medicine labor inspector, he regularly had to hold discussions with workers, union representatives, employers, human resources, and elected officials. He had to look into workers' and employers' appeals regarding unfitness for work decisions, and proceed to accreditation visits of occupational health services. I was accompanying him in these activities, which was a great learning experience for me.

One thing he said regularly was, "*workers are not social morons!*"[15] This came from a publication by three main figures in work psychodynamics: Christophe Dejours, Dominique Dessors, and Pascale Molinier.[16] These authors have warned us on the issue of quick judgments of workers' behaviors.

---

14 Chassaing K, Daniellou F, Davezies P, Duraffourg J. Recherche action: prévenir les risques psychosociaux dans l'industrie automobile: élaboration d'une méthode d'action syndicale. 2012.

15 The original sentence in French is « *les travailleurs ne sont pas des crétins sociaux* », coined by ethnomethodologist Alain Coulon.

16 Dejours C, Dessors D, and Molinier P. Comprendre la résistance au changement. *Documents pour le médecin du travail* 1994; 58(2): 1–8.

> *Even when a worker refuses to wear his hard hat, even if he takes risks that he could avoid, even when he is reluctant to comply with prevention messages, his behavior is not absurd, it has always a sense.*[17]

Understanding the worker's perspective was critical for Jean-Yves Dubré, as well as for Chantal Bertin, another important physician in my occupational medicine training. Chantal was one of the occupational medicine specialists working for Angers city occupational health service. I was a resident there for a total of one year, between 2011 and 2013. Chantal is certainly my role model. She was literally devoted to her work (way too much). Rather than seeing her job as scrutinizing workers and seeking the slightest reason to declare them unfit for work, she always spent a lot of time understanding workers. She is the most empathetic physician that I ever met. Every job is a source of excitement to her. Every discussion with a worker providing her with details about what they do was a source of thrill. There is probably nothing of no interest to her. Her excitement is contagious and really shaped my own vision of the job of being an occupational medicine specialist. The vision I am trying to convey through these lines.

You can easily understand why then, one day when she told me "*Next Saturday, we are going to go to the Place du Ralliement* [to] *see the morning team of street cleaners. They start their shift at 5 in the morning*," I was (for once) happy to get up early on the weekend. We were meeting them to see whether the new electric leaf-blowers they were provided with were really better than the regular gas ones. Although the new ones were way lighter and less noisy than the old ones, they were not powerful enough. They had to spend more time trying to push the leaves and garbage to build up piles, moving their arms more, and likely increasing their musculoskeletal strain.

It seems quite easy, from the comfort of our office, to provide suggestions for improvement that look obvious. Again, the judging: "*you should do this, you must do that*...." Switching a heavy, noisy, gas-containing leaf blower to a lighter, quieter, electric one should indeed fix all potential health issues, right? It is once we understand what's going on in practice that we can understand why workers complain about new materials that are provided to them. And that they have good reasons to complain: the new equipment is probably more likely to displace a health issue, rather than fixing it.

In this case, workers were arguing, because of their health, against a tool that was meant to improve their health. However, workers can argue about occupational health using arguments outside of health. Let me explain that, with another example from my time at Angers city occupational health service.

---

17 Translation from the French by the author.

Losing Your Job: One of the Top Occupational Risks for Workers

This time, Chantal provided me with some work to do. I was there for that. She asked me to run the mandatory periodic assessment of city garbage collectors. I prepared for that by doing a participatory work observation: I spent a full shift collecting garbage myself, at the back of the truck, in the countryside of Saint-Sylvain d'Anjou, a rural town close to Angers. There, the garbage collection process was not automated. Workers needed to get off the truck, pick up the bin, roll it to the back of the truck, secure it on a sort of fork, activate a button to lift it up, empty it, and put it back where it first was. I met with more than 50 workers of this department. Almost all of them were proud of their work; they were contributing to the cleanness of the city. They were benchmarking their work against other cities, not as clean as theirs!

Garbage collection is work that is more complex than it looks. There are many safety issues. Most garbage workers remembered a fatal injury that happened, a couple of years before. It was in 2005, in Cholet, another town not far from Angers.[18] Guillaume was a summer worker, collecting garbage. He slipped from the back of the truck and was crushed, as the truck was reversing. He died later in hospital, aged 22. After that fatal injury, safety had been enhanced, with cameras and alarms on garbage trucks.

I used my time with each of the garbage collectors I met, trying to understand better this complexity. One of them provided me with a typical example. There was this rule: you are to collect garbage only on the right side of the road, except if the truck is on a one-way street. This rule was meant to prevent workers from crossing the street to collect bins on the other side of the road, where they could be hit by cars. However, in practice, one of the workers told me there were circumstances when they were not applying the rule: if they were collecting garbage at a crossing light, they would collect on both sides. By doing so, when the truck came back, it would not have to stop at the green light to collect the bin, and deal with unhappy honking drivers. They were going against the rules, but had a rational reason leading to the decision: they balanced the risk of being hit by a car (quite rare) and the risk of being honked at because the garbage truck is stopped at a green light to collect bins (quite frequent, given that there are approximately 1200 crossing lights in Angers),[19] and dangerous behaviors from drivers (doubling the

18 This article from January 21, 2011 reports on the trial that took place for manslaughter (in French): https://angers.maville.com/actu/actudet_-pres-de-cholet-le-jeune-eboueur-avait-ete-ecrase_9-1662870_actu.Htm (accessed on November 23, 2023).

19 Information retrieved from https://cpu.angers.fr/product/signalisation-lumineuse-tricolore-signal-feu-tricolore-2 (accessed on November 27, 2023).

truck because they are angry at being stuck at a green light for 30 seconds). In this unconscious adjudication process, workers balanced the risk to their health (being injured) with exposure to a psychosocial hazard (being honked at) and the risk for the community (the risk of car accidents due to angry driver behavior). They eventually decided that it made more sense to go against the rules. That it was eventually safer from their perspective.

This example outlines that, when it comes to occupational health, workers do not necessarily make choices to preserve their own health first. I would be tempted to write that workers almost never prioritize their own health when it comes to occupational safety. Damien Cru, a consultant in occupational risk prevention in France, nicely summarized this idea as follows:[20]

> *What is the first risk for a worker? To fail at work doing their tasks as they want, quantitatively and qualitatively. And the second risk? To lose their job, which depends on the first risk, when workers do not meet all demands at work. And then? It depends: not learning anything, getting bored, going crazy, being isolated, being confrontational with the others, or home late to go grocery shopping or to the daycare. The risk of health impairment for the worker comes way after a long series of risks that are identified by a worker.*[21]

We, as occupational health specialists, may tend to wrongly think that, as our own priority is the occupational health of workers, such workers would naturally espouse our cause. Interestingly, workers often fail to meet our own interests as occupational health professionals. They mitigate our own professional priority (their own safety) with other considerations unrelated to their safety (that we may consider secondary as occupational health specialists). How dare a worker give more priority to being honked at rather than complying with the safety rule established for their good! How dare they remove protections in workplaces, which take a lot of time to assemble, to meet the productivity requirements that were literally yelled into their face at the morning briefing! How dare they hide a medical condition that is going to make them unfit in their work, losing their salary and making them unable to pay the mortgage that doubled over the past year!

---

20 Cru D. *Le risque et la règle, le cas du bâtiment et des travaux publics*. Collection Clinique du travail. Editions Erès, Toulouse. 2014.

21 Translation from the author, from the French: « *Quel est le premier risque du salarié? De louper son travail, de ne pas réaliser sa tâche comme il le souhaite, en quantité, en qualité. Et le second? De perdre son emploi, risque lié au premier de ne pas réussir à concilier toutes les contraintes qu'il rencontre. Et puis après? C'est selon, ne rien apprendre, s'ennuyer, devenir fou, s'isoler, s'affronter aux autres, ou encore risquer de quitter trop tard pour faire les courses ou arriver à l'heure chez la nourrice. Le risque de perdre sa santé pour le salarié vient bien après toute une série de risques qu'il importe de permettre à chacune et à chacun de dire* » (p. 17, ibid).

Lift With Your Legs, Not With Your Back!

Hence the education. Occupational health is a pamphlet field. There are thousands of documents of all sorts, videos, printouts, or downloadable pdfs about any occupational health topic. It is quite common to think that "*education is the key*." If it is the key, this means that you think the root problem is a lack of skill or knowledge that can be rectified through proper training. There are many fields where one thinks workers can be educated. We can train them to wash their hands, wear their personal protective equipment (PPE), or manage their stress (we will get back to that one later). One problem is that a significant proportion of whatever is written on these pamphlets is not evidence-based. There are many beliefs about occupational health and safety that are not proven to be true.

You likely have heard that you should "*lift with your legs, not with your back*." That is also what Gabriel Fernandez thought. Gabriel has been another important figure in my career. Right after my residency, I was considering a career in the private sector, as I did not find my experience in public hospitals that great. Up until that time, all my life I had been willing to serve in the public sector, which provided me with education and health. I could not see myself elsewhere but working for a public institution. Over the course of these four years of residency, I ended up thinking that I might better go into the private sector and work in an inter-company occupational health service, for instance. For my own work–life balance. However, it was Gabriel Fernandez who reinvigorated my motivation. One day in 2013, we were having a coffee at the coffee shop *Les Ursulines*, located right in front of the Conservatoire National des Arts et Métiers, where I took my work psychology courses. There, he encouraged me to take a position in a university hospital. I ended up taking my first job at Brest University Hospital, in a wonderful team for five and a half years. That's crazy, how you can make a life-changing decision over a cup of Moroccan mint tea on a café patio!

Gabriel Fernandez was an occupational medicine specialist in France. At some point in his career, he was working at Paris city occupational health service. It was basically the same sort of job that Chantal was doing in Angers. Looking after city workers, but in Paris. He had also spent some time working with street cleaners, and he explained this in a book he wrote in 2009.[22] Some of them were complaining of lower back pain. He looked at them working. He realized that after the closure of a farmers' market, most of them were picking up empty boxes off the ground by bending their back. Not their legs. He even filmed them, and showed the video of them working, so they could realize that they were not following up

22 Fernandez G. *Soigner le travail: itinéraires d'un médecin du travail*. Collection Clinique du Travail. Erès, Toulouse. 2009.

the good advice they were provided with. Everything went well for Gabriel Fernandez. Up until one worker, who was silently watching the video, challenged him: this worker used to be a sports trainer and said that bending the knees is more costly to the body than bending the back. To solve the issue, Gabriel offered to go working with them and be filmed as well. Collecting the boxes after the farmers' market. He was confident he could prove them wrong. He then looked at his own video and realized that things did not go as well as he thought.

> *We could see me bend the knees at the beginning of the clearing, then bend the back more and more as the work progressed. I could not be assertive anymore that bending the knees was preferable to bending the back to do this clearing task, although* [the] *biomechanics of lifting could have helped me demonstrate it was better for the spine and to prevent muscular pain. I was able to recognize that it was less demanding for garbage collectors to do what was theoretically the worst for their back. Experience was challenging theories.*

Since that time, further research in this field is now crystal clear. Training workers to lift things is basically useless. You can certainly train them to operate a crane, or a lifting device to move a patient from their bed in hospital. But providing manual material-handling advice does not reduce the risk of lower back pain.[23] It is very risky for an occupational medicine specialist to try to educate a worker who has many years of experience, someone who has been able to keep their job for many years, sometimes in the rain and snow, and telling them that we know better.

It is easy to overestimate the power of education when it comes to prevention. For instance, putting prevention messages on cigarette packs is not very effective. It has been shown that such labels have little influence on tobacco sales.[24] The effectiveness of messages on cigarette packs does not work through a cognitive loop, but through a loop of negative emotions. Aviel Goodman provided the key criteria for addictions, including the "*continuation of the behavior despite knowledge of having a persistent or recurrent social, financial, psychological or physical problem that is caused or exacerbated by the behavior*."[25] People with an addictive behavior precisely continue their behavior, despite being informed about the

---

23 Verbeek JH, Martimo K, P, Karppinen J et al. Manual material handling advice and assistive devices for preventing and treating back pain in workers. *Cochrane Database of Systematic Reviews* 2011; 15(6): CD005958.

24 Peters E, Romer D, Slovic P et al. The impact and acceptability of Canadian-style cigarette warning labels among U.S. smokers and nonsmokers. *Nicotine and Tobacco Research* 2007; 9(4): 473–481.

25 Goodman A. Addiction: definition and implications. *British Journal of Addiction* 1990; 85: 1403–1408.

risks. More generally, it is not sufficient to know about a risk to modify one's behavior. This is true for drugs. It is true for mental health in general (try not to be worried when you are worried). It is true for occupational hazards: the decision-making process for workers takes into account many other elements.

All in all, we occupational health professionals should constantly challenge the kind of commonsense advice that we give to workers, sometimes in a very paternalistic way, and not always evidence-based. We must be mindful that their own health is not necessarily their top priority. Even though we are obviously here to inform them and give them our expertise, we need to acknowledge that they are unlikely to view their own situation entirely as we do. We must respect human differences, instead of trying to have them share our one right view. It is on the occupational health and safety professional's side to grasp this idea. No matter what they say, people do not experience their own lives in silos (health on one side, other considerations nicely organized on the other side, with the health silo being the first one). We cannot think that if workers fail to understand that health should be their priority, it is just because of a lack of information. That a pamphlet will do the trick. And that if they eventually fail to understand that, it's because they are just a little dumb. Dealing with occupational health is also respecting that workers have other views than specialists. They may disagree, once and for all. Occupational health professionals should work around this, rather than believing this general issue is solvable with a tiny bit of education.

2

Work and Employment: Is There a Difference?

I have been living in Canada since March 2019. As I am writing these lines, it has been six years since I left France, where I was born and raised. Leaving my home country provided me with the opportunity to look at it from a different perspective. This allowed me to reconsider some general ideas that French people take for granted. They would use the expression "*franco-français*" to outline what they identify as traits exclusive to French people, usually exaggerated. Sometimes to brag, such as with their social security system (which is far less protective than they think it is). But French people also like to despise themselves. French people think that they are the least able to speak English, the most unpolite ones, or those with the worst levels of administrative paperwork.

A lot of these *franco-français* statements are unsubstantiated stereotypes.

One of these *franco-français* statements is that the French do not talk enough about work. Nothing is more untrue. Not only do French people talk about work, they are literally obsessed by it. There is a constant flood of papers, journal articles, books, dictionaries even about work, and in which it is reported that work is not discussed enough: "*Work, this unthought*."[1] "*Health of working women: still unthought today*."[2] "*What do we know about work?*"[3]...

I have mixed feelings about how French people discuss work. On the one hand, this very large production around work is nowhere comparable with what

1 Le travail, cet impensé. *Info RH social*. May 21, 2023. Available from https://www.info-socialrh.fr/condition-travail/organisation-travail/le-travail-cet-impense-780344.php (accessed on December 11, 2023).

2 Santé au travail des femmes: un « impensé » aujourd'hui encore. *Sud-Ouest*. June 29, 2023. Available from https://www.sudouest.fr/sante/la-sante-des-femmes-au-travail-est-encore-un-impense-dans-la-societe-d-aujourd-hui-15734693.php (accessed on December 11, 2023).

3 *Collectif. Que. sait-on du travail?* 2023. Presses de Sciences, Po.

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition. Quentin Durand-Moreau.

Canadians produce about work. In this sense, seeing French people complaining that they do not speak much about work is a little bit irritating to me. On the other hand, this probably reflects a lot of specific issues around work in France. Among many, one recent issue is that a lot of French workers had a hard time dealing with the 2023 reform of retirement pensions, which pushed back the retirement age.

In fact, the key issue here is that French work specialists would complain that *work* is less a topic of discussion than *employment*. There are indeed many different words that we could easily take as synonyms for work: *employment*, *labor*, *job*, *occupation*... It is important to spend a bit of time on this. Not for the sake of having a chapter made up of a succession of boring definitions, but understanding these concepts will help you grasp this central idea when it comes to job stress prevention: a workplace is not a place where human relationships are normal. Therefore, stress prevention techniques in workplaces, for workers, cannot be duplicates of whatever methods might work in your personal time.

Work is the most general notion. It basically refers to any effort of production providing an outcome. According to Merriam-Webster, one of the senses of work is "*to perform or carry through a task requiring sustained effort or continuous repeated operations*."[4] It can be defined as the effort taken to accomplish a task. More poetically, work can be defined as an effort of production aimed at transforming the world.

Diverging Interests between Central Banks and Workers

The International Labour Organization (ILO) is a specialized agency of the United Nations, like the World Health Organization (WHO), the Food and Agriculture Organization (FAO), or the International Monetary Fund (IMF). It is a tripartite organization bringing together governments, employers, and workers of member states. Their motto is "*advancing social justice, promoting decent work*." Their goal is to "*set labor standards, develop policies and devise programs promoting decent work for all women and men*."[5] Basically, this organization provides a framework that intends to improve labor laws in each Member State. As of 2025, there are 187 countries that are ILO Member States. This framework includes fundamental principles and rights, conventions eventually ratified by a Member State, or recommendations. These should cascade through the different levels of jurisdictions

4 Merriam-Webster. *Work*. Available from https://www.merriam-webster.com/dictionary/work (accessed on December 11, 2023).

5 International Labour Organization. *About the ILO*. Available from https://www.ilo.org/global/about-the-ilo/lang--en/index.htm (accessed on January 2, 2024).

in each Member State, so labor laws are improved, to "*promote decent work for all women and men*."

Each international organization has different goals. For instance, it is not the ILO's primary goal to allow businesses to make more money: this is the aim of the World Trade Organization (WTO), who must "*ensure that trade flows as smoothly, predictably and freely as possible*."[6] Obviously, promoting decent work does not really align with maximizing profits for a business. If you run a business yourself, you are likely to be willing to maximize your profits, which means that it is not in your direct interest to pay workers more. This is why it makes sense that these aspects are treated by separate entities.

The interests of central banks are not aligned with the interests of workers as well. The Bank of Canada has the mission to "*preserve the value of money by keeping inflation low and stable*." That's what they tried to do, especially in 2022, when the inflation rate reached 8.1% in June, largely exceeding the 1–3% target range.[7] Tiff Macklem, the Governor of the Bank of Canada, explained that there is a sustainable employment level for the economy.

> *When the economy is operating above maximum sustainable employment, businesses can't find enough workers to keep up with demand. As a result, prices go up and inflation rises. That's where we are today [as of November 10, 2022].*

The Bank of Canada considers that there are two elements which can be influenced to reach the inflation-rate target: supply and demand. The bank does not influence supply, so they focus on demand. And to do so, they increase interest rates. In doing this, they *purposely* made the lives of thousands of workers miserable. It was precisely their aim to "cool down" the economy. Unemployment was too low in 2022. There were too many workers working, and not enough unemployed. All of this is relatively easy to monitor when you just look at it through numbers and spreadsheets. It begins to be much more difficult to deal with when the inflation-rate target, and unemployment figures, translate into individuals you know personally losing their job. Or even worse, if you personally have lost your own job. This gives another flavor to the bank's strategy, when they make you unable to make ends meet. Getting unemployed, abruptly, is violent. It is tied to the importance of work for people, and how work is tied to their identity. Think of

---

6 World Trade Organization. *The WTO*. Available from https://www.wto.org/english/thewto_e/thewto_e.htm (accessed on January 2, 2024). Even though the WTO is not officially part of the United Nations system, it has close links with it.

7 Bank of Canada. *Inflation-control target*. https://www.bankofcanada.ca/rates/indicators/key-variables/inflation-control-target (accessed on January 3, 2024).

it: when you first meet with someone, how quickly does the question of occupation arrive? Is it the second, the third question we ask? Becoming unemployed is a huge source of stress.

It is very easy to understand that such policies are difficult to align with workers' interests as well. This said, do not get me wrong. I am certainly not saying that I have a miracle solution, or that we should dismiss the problems of inflation. I am not an economist (but most economists are not occupational medicine specialists either). I am just saying that it is naïve to believe that there are strategic decisions that work for everyone, all the time, with everyone's interests being aligned all the time.

It is no different when we appraise the economy and its impact on occupational health. A global economic decision that may be somewhat good for the general population may be so only according to certain parameters (and not others) and only for certain individuals (and not others). When you increase interest rates to reduce inflation, you purposely create harm for some workers. No matter what.

All in all, the ILO must be vocal, so it is not only about the agendas of business, the WTO, or the IMF. Promoting decent work does not go together with "*cooling down*" the economy or "*ensuring that trade flows as smoothly, predictably and freely as possible*."

As this book is precisely about workers' health and job stress, you will understand why I am referring to publications from the ILO, which has their own definition of work. They state that work is "*any activity performed by persons of any sex and age to produce goods or to provide services for use by others or for own use*."[8] This definition considers work irrespective of its formal or informal character, or its legal or illegal character. However, certain activities are excluded from the ILO definition, as outlined in a 2023 resolution. The ILO does not consider as work "*activities that do not involve producing goods or services (e.g. begging and stealing), self-care (e.g. personal grooming and hygiene) and activities that cannot be performed by another person on one's own behalf (e.g. sleeping, learning and activities for own recreation)*."[9] For most of it, I have no issues with this definition. However, it may be debatable whether begging qualifies as work. Begging is still "*performing or carrying through a task requiring sustained effort or continuous repeated operations*." Begging requires a lot of patience and energy, to obtain some money as a

8 International Labour Organization. *Work and employment are not synonyms*. Available from https://ilostat.ilo.org/work-and-employment-are-not-synonyms (accessed on December 11, 2023).

9 International Labour Organization. Resolution to amend the 19th ICLS resolution concerning statistics of work, employment and labour underutilization. In *Proceedings of the 21st International Conference of Labour Statisticians, 2023*. Available from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms:230304.pdf (accessed on December 11, 2023).

result. This is so debatable that in another document about forced labor, the ILO themselves state that "*work or service*" encompasses "*activities that may be illegal or not considered as work in certain countries, such as begging or prostitution*."[10]

The definitions of work we have reviewed so far have two elements in common. First, there is an aim of accomplishing something through work: you do not leave the world in the exact same state after than before you started working. This does not mean that work is always effective, or that we are always successful nevertheless. Second, work requires some effort to put into it. Again, it does not imply anything about the level of this effort. We can put minimal or maximal effort into our work, but there is always some degree of effort. Work is not made to be effortless. It is made to cost us some energy, some input.

The rest is irrelevant to the characterization of what work *is*. Work is not necessarily meaningful. It does not necessarily come with benefits or with recognition. It is not even necessarily paid (depending on circumstances, we call this *volunteering*, *slavery,* or *domestic work*). More importantly, what qualifies as work has absolutely nothing to do with what qualifies as morally acceptable. For instance, there is no discussion at all that sex work is work.

Defining Employment is up to Statisticians

The underlying problem with either sex work or domestic work is whether these forms of *work* should be considered as *employment*. The definition of work is general and qualitative. The definition of employment is quite the opposite. It's not in a dictionary that we find definitions of employment, but on websites of national institutes of statistics. Employment is defined by Statistics Canada in Canada, by the Insee (Institut national de la statistique et des études économiques) in France, by the Bureau of Labor Statistics (BLS) in the United States.... There is also an international definition of employment provided by the ILO. Some definitions of employment and employed persons provided in Table 1 show the complexity of these notions. Not all countries have the same definitions. Some countries, like France, use different definitions of employment, including one for census purposes that is explicitly different from the ILO definition. Some others, like the United Kingdom, have a definition clearly aligned with the ILO definition.

Basically, states count those in employment to provide statistics to inform political decisions. Those meeting the set of criteria, during the reference period in which counting is conducted, will be considered as "employed." Most employed people

10 International Labour Organization. *ILO toolkit on developing national action plans on forced labour: Tool No. 2*. Available from https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms:762168.pdf (accessed on December 11, 2023).

Table 1 International and select national definitions of employment and employed persons

International definition (ILO)[11]	**Employment** work comprises work performed for others in exchange for pay or profit. **Persons in employment** are defined as all those of working age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit. They include (1) employed persons "at work" (i.e. who worked in a job for at least one hour); (2) employed persons "not at work" due to temporary absence from a job, or to working-time arrangements (e.g. shift work, flexitime, and compensatory leave for overtime).
Canada (Statistics Canada)[12]	**Employed persons** are those who, during the reference week, did any work for pay or profit or had a job and were absent from work.
France (Insee)[13]	**Employees** (*salariés*) are individuals who work, according to a contract, for another entity, in exchange for pay or equivalent retribution, with a subordination relationship. **Employment** (*emploi*) is defined for national accounts as all people, employees and independent workers, having a production activity. For census purposes, employed persons are those who declared having a job on the census form.
United Kingdom (Labor Force Survey, Office for National Statistics)[14]	**Employed persons** are anyone aged 16 or over who has completed at least one hour of work in the reference week, or are temporarily away from his or her job, such as being on holiday. This definition of an employed person is in line with the ILO definition of employment.
United States (Bureau of Labor Statistics)[15]	**Employment** is defined as filled jobs, whether full- or part-time, and whether temporary or permanent, by place of work. Note: the scope of who is counted as employed varies among BLS programs. **Employed** are people who, during the reference week, did any work for pay or profit; did at least 15 hours of unpaid work in a family-operated enterprise; or were temporarily absent from their regular job(s) because of illness, vacation, bad weather, an industrial dispute, or various personal reasons.

11 International Labour Organization. Resolution to amend the 19th ICLS resolution concerning statistics of work, employment and labour underutilization. In *Proceedings of the 21st International Conference of Labour Statisticians, 2023*. Available from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms:230304.pdf (accessed on December 14, 2023).

12 Statistics Canada. *Employment*. Available from https://www160.statcan.gc.ca/prosperity-prosperite/employment-emploi-eng.htm (accessed on December 14, 2023).

13 Insee. *Définitions*. Available from https://www.insee.fr/fr/metadonnees/definition/c1693 (accessed on December 14, 2023).

14 Office for National Statistics. *Definition of employed*. Available from www.ons.gov.uk/aboutus/transparencyandgovernance/freedomofinformationfoi/definitionofemployed (accessed on December 14, 2023).

15 U.S. Bureau of Labor Statistics. *Glossary*. Available from https://www.bls.gov/bls/glossary.htm#E (accessed December 14, 2023).

will be working. However, there are circumstances where employed people are out of the workforce. For instance, a person on sick leave will not be currently working but will still count as employed under the US Bureau of Labor Statistics definition.

Unfortunately, we have still not provided enough definitions and clarifications at this stage. We need to clarify further the nature of employment. What exactly is a "filled job" (in the United States)? What exactly is this "contract" that governs the notion of employment (in France), or what does "*performing work for others in exchange for pay or profit*" mean? I am not flooding you with these definitions just for fun. Because it is not particularly fun. Even for a passionate guy like me. However, the nature of the work relationship directly influences job stress. This is why it is so critical to understand these key notions about work and employment. Your stress level as a worker will be different whether you are employed in a fixed-term contract, or if you are working in the gig economy. It will be different whether you are working as an employee or not. Stress is not just a notion that you can study independently from the context where it arises. Job stress is a very specific notion that has some differences with the stress you might experience elsewhere.

A key characteristic of work is that it is an activity completed by someone and directed toward someone else, whether that is a customer, a supervisor, or a colleague. Hence, there is a relationship with at least two parts. The problem is that the nature of the relationship with this "other" might differ. We can distinguish two categories: an employment relationship (also called contract *of* service) and a commercial relationship (also called contract *for* services).

Human Relationships between an Employer and an Employee are Biased and Unequal

A contract *of* service governs the relationship between two entities: an employee and an employer. Most work relationships in developed countries are contracts *of* service. For instance, in 2022, there were 19,693,000 workers in Canada: 17,042,300 (87%) of these were employed. Of these, three-quarters worked in the private sector, and the remaining quarter worked in the public sector, whereas 2,650,600 (13%) were self-employed (including incorporated, unincorporated, and unpaid family workers).[16] Being employed in a contract *of* service usually comes with advantages: social protection, benefits, guaranteed income.... This said, contracts of service have a critical characteristic that strongly influences human relationships in a company: the employee is *subordinated* to the employer and is expected to be *loyal* toward their employer.[17] This is an unequal relationship by nature.

16 Statistics Canada. *Employment by class of worker, annual (x1000)*. Available from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410002701&request_locale=en (accessed on December 22, 2023).

17 Siegrist J and Li J. Psychosocial occupational health: an interdisciplinary textbook. 2024. Oxford. Oxford University Press (p. 52).

There is a strong part (the employer) and a weak part to the contract (the employee). These two entities have agreed on and signed what is called a contract of employment. In this contract, the employee agrees to alienate their freedom for a certain number of hours every week, to fulfill the tasks requested by the employer as outlined in the contract. Employed workers (by nature, by definition) are not free to do what they want. They signed a contract saying that should they perform the work outlined in their contract (instead of doing whatever they want), they are getting paid for it and may eventually receive additional benefits (whether that be a pension plan, life insurance, or health insurance for instance).

Under a contract *of* service, human relationships between an employer and an employee are skewed. Philosopher Simone Weil was even more radical than that. She considered that a subordination relationship between both parts made human relationships impossible.

> *I only envision human relationships based on equality. As soon as someone starts to treat me as inferior, there is no possibility to have human relationships between he and I, and I treat him as superior. This means that I suffer his power as I would suffer from cold or rain.*[18]

Keep Simone Weil in mind. We will be back to her later in this book. She is a fascinating philosopher, and her contributions are extremely important to appraise contemporary challenges in workplaces.

In theory, labor laws are aimed at bringing some protection for workers in their inequal relationship with employers. It is naïve to believe that within an organization, employers will always make strategic decisions that are systematically aligned with workers' best interests. It is as naïve as believing that drivers never drive too fast on highways. Speed limits are not in the best interests of the driver who wants to reduce their commuting time. However, they are in the best interests of society, reducing road traffic injuries and fatalities by trying to reduce drivers' speed. You can envision labor laws with the same lens.[19] Labor laws are not meant to facilitate business for each single corporation, but they should aim to make sure that we keep workers healthy for the benefits of society overall. We assume that healthy workers will contribute to society, volunteer, or pay taxes more than unhealthy workers. However, labor law enforcement is not the priority of most governments. And the subordination relationship remains quite unbalanced in most jurisdictions, which has a strong influence on job stress.

---

18 Weil S. La condition ouvrière. In *Lettres à Victor Bernard*. Editions Folio, Paris. 1936.

19 Durand-Moreau Q. Peut-il y avoir une prévention efficace en santé au travail sans coercition? [Can occupational health prevention be effective without enforcement?]. *Archives des maladies professionnelles et de l'environnement* 2023; 84(2): 101694.

Non-standard and Precarious Forms of Employment

So far, we have discussed the traditional employer–employee relationship, under the contract *of* service. This is what we also call the standard form of employment. Any other work arrangement would be considered a non-standard form of employment, which includes different forms of work: temporary employment, temporary agency work, or digital labor platform work.

Let's dive into the contract *for* services. This type of contract is a commercial contract between two parts: a contractor (or a service provider) and a customer. In a contract *for* services, there is no subordination relationship between both parts (at least, in theory). The customer hires a contractor to fulfill a task, in exchange for payment on which they agreed on.

The characteristics of the contract for services also influence the job stress experience for contractors. They may live in the uncertainty of monthly earnings: some months may be better than others. They do not necessarily have all the social protection, whether it be employment insurance or health benefits. In some jurisdictions, contractors can (or even have to) "buy" their own workers' compensation coverage, meaning that they will have to pay a premium if they want to receive such benefits for themselves. However, if the contractor has hired some employees to help them do the job, these employees will have a contract *of* service with their employer (in this case, the contractor). Depending on the jurisdiction, these employees are likely entitled to receive benefits, including workers' compensation coverage; but not the contractor themselves if they do not buy such coverage.

Contractors with a contract for services with customers are not under a subordination relationship. But that is only a theory. As usual, the reality is more nuanced. There are gray areas in this matter, particularly in the gig economy, also known as the digital labor platform economy. There are three categories of gig economy activities:[20] *on-demand physical services* (e.g. food delivery or transportation); *crowd work* (simple micro-tasks of work completed for a third party, usually highly repetitive such as data collecting or trolling); and *online freelancing*.

Gig economy workers (or contractors) are connected to customers through an app. But it is not a traditional contract for services between both. The app largely skews this relationship. For instance, when we use a ridesharing service to order a car ride to go somewhere through an app, it is neither your driver nor yourself who decide freely on the price. It is the app owners who decide through an algorithm based on supply and demand. Should the driver decide not to take a

20 Bérastégui P. *Exposure to psychosocial risk factors in the gig economy: a systematic review*. ETUI Report 2021.01. Available from https://www.etui.org/sites/default/files/2021-02/Exposure%20to%20psychosocial%20risk%20factors%20in%20the%20gig%20economy-a%20systematic%20review-2021.pdf (accessed on January 13, 2025).

ride request, because it is too far, they may face some sort of retaliation from the platform, such as not being provided with as many requests. Contractors of the gig economy usually combine the drawbacks of the employee status with the drawbacks of the contractor status.

Such jobs would fall under the category of *precarious employment*, with three associated characteristics according to Kreshpaj and colleagues:[21]

- *Employment insecurity*, which includes an insecure contractual relationship, contractual temporariness of the employment (e.g. working for just a couple of months), contractual underemployment (e.g. being provided less than full-time duties), and the need to cumulate multiple jobs.
- *Income inadequacy,* usually with a low income level.
- *Lack of rights and protection*, including lack of unionization, social security, regulatory support, and workplace rights.

A 2021 ILO survey has shown that 41% of platform workers receive health insurance, but only 20% contribute to a pension plan, 15% receive employment injury insurance, and 12% receive unemployment and disability insurance.[22] Most gig economy workers earn less than the average wage in their country. There are variations by country (developed vs. developing and emerging) and sex (female workers reporting less protection). While neither social protection nor minimum wage are systematic because of their contractor status, the power the app has over them may be like the power an employer has over an employee. In reality, rather than on paper, this relationship might well be a subordination relationship, which should open the door for reclassification as a contract *of* service. Requests of gig economy workers to be requalified as employees have been brought to courts in several countries, with limited success so far. The European Union is working on improving social and labor rights for gig economy workers.[23] The path for such workers to be treated as employees will be long. The commercial interests of large digital labor platform companies will not help such improvement for workers, as

21 Kreshpaj B, Orellana C, Burström B et al. What is precarious employment? A systematic review of definitions and operationalizations from quantitative and qualitative studies. *Scandinavian Journal of Work, Environment & Health* 2020; 46(3): 235–247.

22 ILO, ISSA, and OECD. *Providing adequate and sustainable social protection for workers in the gig and platform economy*. Technical paper prepared for the first meeting of the Employment Working Group under the Indian Presidency of the G20. Available from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---ddg_p/documents/publication/wcms:867535.pdf (accessed on January 2, 2024).

23 Financial Times. EU agrees 'gig economy' rules to boost workers' rights. *Financial Times*, December 13, 2023. Available from https://www.ft.com/content/f59a7820-a399-42e8-8131-38ff0b434e72 (accessed on January 2, 2024).

they will try to preserve their profits, helped by their limited contributions to social protection systems. All in all, no doubt that whether you are employed as a taxi driver for a taxi company, or you are working for a ridesharing app as a contractor, your level of job stress will be different because of factors such as work unpredictability, variable and task-based remuneration, or lack of stability in your situation.

A 2019 study by Statistics Canada showed that there were more migrant workers in the Canadian gig economy than Canadian-born workers.[24] In addition to all occupational hazards, migrant workers experience additional stressors. They are usually in a position of "*vulnerabilization*": not intrinsically weak or frail, but living in an environment that makes them more vulnerable, as they may experience language barriers or difficulties in accessing services.

The Poor Social Support that MLM Workers Get from Their Peers

Another peculiar form of work is in multi-level marketing (MLM) businesses. MLM is a form of direct sales between distributors and customers, operating in various business sectors. According to the World Federation of Direct Selling Associations, the top categories for direct sales in 2022 were wellness, cosmetic and personal care, and household goods and durables.[25] For some MLM businesses, products are sold exclusively during parties arranged at home. This system allows brands to save costs on advertising. A key feature of MLM businesses is that sellers (also called distributors) are recruited among customers of the brand. This is how someone attending a party can first buy some items, and then become a distributor themselves. MLM may be confused with pyramid schemes. Usually, operating MLM businesses is legal, whereas operating (or even promoting) pyramid schemes is considered a criminal offense. In pyramid schemes, profits are generated via the enrollment of new distributors rather than product sales.[26]

---

24 Jeon H. S., Liu H., and Ostrovsky Y. *Measuring the gig economy in Canada using administrative data*. Available from https://www150.statcan.gc.ca/n1/en/pub/11f0019m/11f0019m2019025-eng.pdf?st=eWYJu2Y6 (accessed on January 2, 2024).

25 World Federation of Direct Selling Associations. *2022 Global annual direct selling statistical data report*, August 2023. Available from https://heyzine.com/flip-book/WFDSASTATS_Aug2023V3#page/1 (accessed on January 3, 2024).

26 Government of Canada. *Multi-level marketing and pyramid selling*. Available from https://ised-isde.canada.ca/site/competition-bureau-canada/en/deceptive-marketing-practices/types-deceptive-marketing-practices/multi-level-marketing-and-pyramid-selling (accessed on January 3, 2024).

As I have shown by reviewing different forms of employment, the nature of the contractual relationship linking a worker with a third party influences the development of job stress. The same applies with MLM distributors. I would like to illustrate this with an example from my practice.[27]

Between 2013 and 2019, I was in charge of the work-related mental health clinic in the Occupational and Environmental Diseases Center at Brest University Hospital, in France. Over that period, I met with several distributors working for the same MLM. This business was not selling the kind of cheap products you could buy over and over again, like vegan lipsticks or vitamin pills. Rather, they were selling more pricy goods that you usually buy a couple of times in a lifetime. What the business sells makes quite a difference. You can certainly sell dietary supplements to the same customer several times a year. You are unlikely to sell a car to the same customer several times in a decade (normally). Depending on what you are selling, you are not going to use the same strategies. You do not have the same target market. Likely, the commissions the seller will get are not the same as well. All of these parameters set the stage for workers and their occupational health.

As they are recruited in the pool of former customers, most MLM workers believe in the products they sell. At least in the beginning. They have used it themselves, and they can use this experience to convince customers to get their own products. Sometimes, mothers and daughters enter the same business together.

MLMs are businesses where most distributors are women. Data from the World Federation of Direct Selling Associations indicate that in 2022, the proportion of women among direct sellers was 87% in Canada, 80% in France, and 75% in the United States. It is the perfect sort of job for stay-at-home moms, wanting to get a little extra money while working a couple of hours a month. In Canada, it has been shown that new immigrants who struggle to get their credentials recognized, and hence struggle to access the formal labor market, may end up working in more accessible MLM jobs.[28]

During the 2008 worldwide economic crisis, many workers lost their jobs: in Canada, the unemployment rate jumped from 5.3% in 2008 to 7.2% in 2009.[29] In the United States, it jumped from 4.9% in January 2008 to 7.8% in January 2009.[30] The trend was the same in France. Unemployment went from 7.2% in

27 The example has been adapted slightly to preserve the confidentiality of patient information.
28 Adagbon G. *The dream team? Immigrants, multilevel marketing and integration*. PhD thesis, York University, Toronto, January 2021.
29 Statistics Canada. *Unemployment rate, participation rate and employment rate by educational attainment, annual*. Available from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410002001&pickMembers%5B0%5D=1.1&pickMembers%5B1%5D=2.8&pickMembers%5B2%5D=4.1&pickMembers%5B3%5D=5.3&cubeTimeFrame.startYear=1990&cubeTimeFrame.endYear=2022&referencePeriods=19900101%2C20220101 (accessed on January 3, 2024).
30 National Conference of State Legislatures. *National employment monthly update*. Available from https://www.ncsl.org/labor-and-employment/national-employment-monthly-update#:~:text=Total%20nonfarm%20payroll%20employment%20increased (accessed on January 3, 2024).

the first quarter of 2008 to 8.6% one year later.[31] At that period there was an influx of MLM workers. Before the crisis, the MLM business where my patients were working had around 10 distributors, and it had skyrocketed to around 200 ten years after. Jobs in MLM businesses have never been designed as a substantial way to earn one's livelihood. But during crisis times, new workers in this industry have likely seen this as a *better than nothing* job. In this company, distributors got paid exclusively based on their volume of sales each month, getting around 5% of the price of the goods they sell (before taxes). It requires an awful lot of time and effort for each distributor to make what should be a side activity into something they get a good enough paycheck from. In a market that is not that extensible (remember, we are not talking about the lipsticks that one can buy several times a year), and in the context of increased concurrence (from 10 to 200 workers), each distributor is going to have a serious problem. The same lake, the same number of fish, 20-fold more fishing poles: you're still only allowed to keep 5% of the fish you get.

This changing context has influenced the nature of relationships between distributors. When you work somewhere, you need to have the support of colleagues. You need some orientation. You need someone to discuss any issues with. You need some feedback, for instance on your selling strategies: how much should you insist on a customer to get the sale? What works? Discussing these topics with colleagues is easier when relationships are friendly. It becomes a little tougher when the lake is crowded with hundreds of fishers. As they were working for the same MLM business, workmates progressively became competitors. To use our jargon, we say that the *social support* is reduced. As you might easily guess, this is rarely associated with great mental health outcomes. In addition, remember that in certain situations family members are working in the same business. Family meetings might not be quite as fun in this context.

At the same time, the use of the internet has expanded. People started to do their research prior to buying pricy goods. And MLM businesses started to sell their items on a website. This meant that not only were all distributors in competition with each other, but they were competing against the website. The worst-case scenario was if a distributor organized a party to sell the items. There is an interested customer. The distributor gives them a business card. But on following up, the customer has already bought the item via the website, rather than via the distributor. That's how distributors were starting to lose a significant chunk of their commissions. However, from the customer side, getting the item one way or another does not change anything for them. You see that in the nitty gritty of how

31 Institut national de la statistique et des études économiques. *L'essentiel sur … le chômage*. Available from https://www.insee.fr/fr/statistiques/4805248#:~:text=Le%20taux%20de%20chômage%20au (accessed on January 3, 2024).

labor relations are arranged, we are already starting to uncover reasons for workers experiencing job stress.

The ILO Call to Transition from the Informal to the Formal Economy

So far, we have reviewed several forms of formal work relationships. In all these cases, workers have a contract – an agreement defining what they have to do and how much money they are going to receive from their work. However, when we look beyond developed countries, most work relationships worldwide fall under the category of informal employment. The ILO defines informal employment as "*any activity of persons to produce goods or provide services for pay or profit that is not effectively covered by formal arrangements*."[32] It includes independent workers having an informal household market enterprise, non-registered contractors, employees with non-recognized employment relationships, or non-recognized family workers. There are many countries where the share of informal economy workers exceeds 50% of the total workforce. Several even exceed 90% of informal economy workers, such as Cambodia (93.1%), Nepal (94.3%), Benin (94.5%), and Burkina Faso (94.6%).[33] The proportion of informal economy workers is indeed higher in low-income countries (92% of women and 88% of men, as of 2016). The higher the Human Development Index (HDI) or Gross Domestic Product (GDP) per capita, the lower the proportion of informal employment in a country.

However, the proportion of informal employment workers is far from being zero in developed countries. The share of informal employment in developed countries is 18% of all employed women and 19% of all employed men.[34] The proportion of informal employment was 18.6% in the United States in 2013, and 9.8% for France in 2012. No data for Canada were provided in the ILO report on informal employment. Statistics Canada has released data on what they call the underground economy, defined as "*consisting of market-based economic activities, whether legal or illegal, that escape measurement because of their hidden, illegal, or informal nature*."[35] The Canadian underground economy overlaps with what is

32 Gardner J, Walsh K, Frosch M. *Engendering informality statistics: gaps and opportunities*. ILO Working Paper. Available from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms:861882.pdf (accessed on January 4, 2024).

33 International Labour Organization. *Women and men in the informal economy: a statistical picture* (3rd ed.). 2018. Available from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms:626831.pdf (accessed on January 4, 2024).

34 Gardner et al. Ibid.

35 Statistics Canada. *The underground economy in Canada, 2021*. Available from https://www150.statcan.gc.ca/n1/daily-quotidien/230220/dq230220b-eng.htm (accessed on January 4, 2024).

considered the informal economy. The underground economy generated 2.7% of Canada's GDP in 2021. Because of the precarity of their situation, informal workers are also at high risk of experiencing job stress.

The ILO has a specific agenda to reduce the proportion of informal employment, as reflected in a recommendation adopted in 2015 called "transition from the Informal to the Formal Economy" (R204). Such a transition aims to help workers get effective occupational health services, income security, and social security coverage.[36] There is not a lot of research when it comes to comparing similar occupational exposures between formal and informal economy workers. A study conducted between 2012 and 2018 compared self-perceived health between formal and informal workers in Latin America and the Caribbean and showed that informal workers reported significantly worse health than formal workers.[37] A global move toward formalization of labor relationships is extremely likely to improve the health of workers, and decrease their level of job stress.

Let's put aside the complexity of these definitions (informal, underground economy) for now, and recap what matters at this point.

1) There are *standard forms of employment*, defined by each country (contract *of* service).
2) All other forms of employment are considered *non-standard forms of employment*.
3) Some of these non-standard forms of employment include *commercial relationships* (contract *for* services). Digital labor platform workers are a specific case of such commercial relationships. MLM workers are another category of workers in non-standard forms of employment.
4) Some of these non-standard forms of employment are not even formalized clearly and would be considered *informal employment*. Although informal employment is more common in low-income countries, it still exists in a non-negligible proportion in developed countries.

The key point of this chapter was to help you understand that work arrangements might be complex, but they are certainly not a marginal question for

36 International Labour Organization. *R204 – Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204)*. Available from https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R204#:~:text=Through%20the%20transition%20to%20the (accessed on January 4, 2024).

37 Utzet M, Botías F, Silva-Peñaherrera M et al. Informal employment and poor self-perceived health in Latin America and the Caribbean: a gender-based comparison between countries and welfare states in a pooled analysis of 176,786 workers. *Globalization and Health* 2021; 17(1): 140.

workers. Consequently, they cannot be a marginal question for experts in job stress or wellness at work.

Depending on the type of work arrangement, the workers' experience of their job will vary, as well as their level of stress. Benefits, protection, and sustainability all differ between standard employment and a job in the informal economy. Hence, it is necessary to look at these specificities prior to using a one-size-fits-all method for everyone.

Part II

The Key Concepts to Understand Job Stress

3

A Job that Makes Sense: Understanding the Concept of Activity

You may have been irritated when I wrote in the previous chapter that whether the work makes sense for the worker is irrelevant to the definition of what work is. You may think that having work which makes sense to you is critical, especially for your mental health. And you would be right.

Work does not need to be meaningful to be qualified as work. Indeed, not all jobs make sense for a worker, even though they still meet the definition of what work is. The fact that a job makes sense (or not) is not part of the definition of what work is. However, this does not mean it is not an important characteristic of work. When your work does not make sense to you, it is likely to make you sick.

I would now like to spend some time explaining what *making sense* means when we talk about work.

John's Return to Work Plan: A Successful Failure (or a Failed Success)

Let's talk about John, whom I met in my clinics.[1] He has a severe respiratory problem. He requires supplemental oxygen 24 hours a day. This means that he has to carry an oxygen tank with him at all times. Obviously, he could not continue working as a truck driver.[2] His driver's license has been taken away after 30 years of service. The good news is that he gets along with his boss. They found an office

1 Again, details are modified so the individual situation cannot be identified.

2 Standards from the Canadian Council of Motor Transport Administrators are that commercial drivers requiring continuous supplemental oxygen are not eligible for a license. See https://www.ccmta.ca/web/default/files/PDF/National%20Safety%20Code%20Standard%206%20-%20Determining%20Fitness%20to%20Drive%20in%20Canada%20-%20February%202021%20-%20Final.pdf (accessed on January 11, 2024).

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition. Quentin Durand-Moreau.

position for him, so he can continue working. He is working with other colleagues in the office, and must deal with customer requests for service.

On paper, everything looks good. He ticks all the boxes. From the disability insurance perspective, it's great: he is back to work, so they do not have to pay long-term disability pension anymore. That is what insurance providers are looking for: putting workers back to work "asap." That's what happened here. Plus, the working conditions are great: inside, in a heated office. With nice colleagues to work with. It might constitute some social support. And the work is not safety sensitive: he is able to keep his oxygen tank and fulfill his tasks.

It all seems for the best for John. Except for one detail.

He hates his new job.

He hates being enclosed in an office. He cannot stand being overwhelmed with dozens of noisy coworkers interrupting him. He gets stressed out when he has to deal with angry customers and liaise with unhappy truck drivers about last-minute schedule changes. He was a truck driver. He chose that one job, not another. He enjoyed being in his truck, on his own, surrounded by the Canadian Prairies or the Rocky Mountains. He never saw himself as a 9-to-5 office worker. He accepted these modified duties just because he needs the money. That's the only motivation here. But he simply hates it all. John has been redeployed in a position that does not make any sense to him.

In my career, I have met several patients in the same situation as John. The most awful thing in such cases is that not only are these workers miserable in new positions they hate, but they have to deal with a huge sense of guilt. As they "benefited" from accommodation, they are likely to have been told "how great that is," "how lucky they are," that "not everyone is accommodated like them," that it's "such a perfect fit for them." In such a context, where is the room for the worker to say that it does not work for them? They cannot just deceive all these individuals: the insurance provider, the employer who found the position, the physicians who have been advocating for implementing the limitations and restrictions.... They feel that they would fail everyone by disclosing that they hate it. It is extremely likely that a vast number of workers in similar situations might prefer to keep their mouth shut rather than deal with the possible anger and disappointment of all the individuals who tried to support them in good faith.

This raises the following question for all these providers, insurers, workers' compensation boards, occupational physicians.... What importance is given to the worker's interest in the job? Is it a marginal or a critical question? What's most important? Ticking the boxes to help insurance providers pay as little as possible, using the argument that "the sooner they are back at work, the better it is for the worker"? Besides, hating one's job might be considered more a minor inconvenience, rather than a real health factor. A physician is not necessarily here to help their patients like their jobs. Hating something is neither a symptom nor a disease.

After all, they have a job coming with benefits and a pension and everything! That should suffice. If not, we could still educate the worker and explain to them how good it is, so they can understand how wrong they are.

Well, it could suffice. For some time. Up until a breaking point.

The problem is that John is now developing a major depressive episode from this situation. He has never experienced any mental health problems in the past. What workers might frame using the "hate" word can end up as a sinister diagnosis. Hating one's job for too long can be way more serious than just an inconvenience.

This story reflects how important it is to understand what an *activity* is. At that stage, we need to go into a little bit of theory.

Real Work Goes Beyond Executing a Predetermined List of Tasks

Let's start by explaining what the difference is between a *task* and an *activity*. This is a fundamental point coming from the field of activity ergonomics. The *task* (or "*prescribed work*") is what a worker is asked to do, and an *activity* is what they end up doing in reality. There is a gap between the task and the activity. To be effective, a worker must go beyond what's just prescribed, beyond what's just on their task list. They have to take initiatives to fill in the blanks, deal with the unexpected, correct the errors. Should a worker decide to strictly execute the listed tasks, and nothing else, there is no work at all. This phenomenon is called "work to rule," and when workers do that, a company can be totally paralyzed. It can even be used by workers as a strategy during a strike.

It's important to understand that this gap between a task and an activity is normal, and is never filled by giving more details. You might have experienced the fact that sometimes, the more you give instructions to someone, the less they understand, and the worse it gets. Every additional step in a process might create confusion and generate questions compared to a simpler process.

The difference between a task and an activity is the reason why you have to go on-site to look at workers; you have to hear their experiences if you want to know about their work. You cannot fully rely on lists of tasks and procedures. When a worker tells me that, on paper, they start their workday at 8, it's of no interest if in practice they have to arrive at 7.30 to prepare everything before their shift. A list of tasks that no one complies with has little interest.

However, we need to elaborate a bit more on the ergonomic concept of activity, to go a bit further than "*what workers end up doing in reality*." To do this, I will refer to the work of work psychologist and emeritus professor Yves Clot, who was one of my professors while I was studying work psychology in Paris. Ergonomists

and work psychologists do not perfectly agree on what activity exactly is. Now that you know the point of view of ergonomists, let's go through the work psychologists' definition.

Yves Clot defines activity as follows:[3]

> *We distinguish between the realized activity, on the one hand – that is, what the practitioner actually does and which is observable through the result of her or his work – and the reality of the activity, on the other hand – which represents the non-realized possibilities, as Vygotsky called them. These non-realized possibilities refer to what the practitioner does not do, what she or he tries without succeeding, what she or he gives up doing, what she or he thinks she or he would do if the circumstances were more favorable, or even what she or he eventually does to avoid responding to the expectations of others.*

If this definition seems quite complicated, the overall idea behind it is pretty simple. Let's go through it using an example.

Back in 2022, I participated in a conference in Victoria, British Columbia, where I was presenting on occupational cancers. The conference was in a hotel, close enough to downtown so I could enjoy a nice walk after the sessions. Victoria is such a beautiful city, with a great walkable area and many patios during the summer, close to the sea. There are so many great bakeries there. Approximately half of my diet during this trip was made up of sweets and pastries such as flourless chocolate cake slices.

Let's assume that I am precisely willing to bake a flourless chocolate cake to bring my Victoria experience back home. I get the recipe. I need four eggs. I open the fridge: I only have three. I have all the other ingredients. What is missing is just one egg. That's too bad. One little egg. What do I do? Should I go out and get some more eggs. As it happens, today it is −30°C in Edmonton.[4] Am I loving this cake enough to go outside during a polar vortex? Should I convert all of the ingredients and adjust the quantities for my three available eggs? My eggs are "extra-large." So I end up deciding that my three eggs are going to make up for the four required in the recipe, and proceed.

Let's revisit this last paragraph with the lens of the activity ergonomist. The cake recipe is going to be the *task*. That's exactly what a recipe is: a list of tasks, in a given order. Instructions to follow to successfully bake a cake. This said, how

3 Clot Y and Kostulski K. Intervening for transforming, the horizon of action in the clinic of activity. *Theory & Psychology* 2011; 21(5): 681–696.

4 I am writing these words on January 11, 2024. My thermometer indicates –30°C, corresponding to –22°F (–40°C with the windchill, corresponding to –40°F).

many times have you followed a recipe to the letter, and failed your food prep? The truth is that sometimes, following the recipe does not totally work: there is a gap between the instructions and the reality of making the cake.

And now, Let's expand using Yves Clot's work psychologist's lens to revisit this baking story. We still have the *task*s: the recipe. Clot distinguishes two components of the activity. The first one is the *realized activity*: what the worker ends up doing, what is visible, measurable. In my case, it's that I baked a cake, with three eggs instead of four. The work psychologist's realized activity is the same as the ergonomist's activity we just mentioned. But Clot goes further with a second component to the activity, which encompasses all of the invisible: the non-realized possibilities ("*what the practitioner does not do, what she or he tries without succeeding. . .*"). In my baking example, this second part of the activity comprises all of the possibilities that I have raised: going to the grocery store to get my additional egg; recalculating adjusted quantities of all ingredients to match for my three eggs. Both parts (the realized activity and all of the non-realized possibilities) together constitute what Yves Clot calls *the reality of the activity*. Stated in another way:

$$\text{Reality of the activity} = \text{realized activity} + \text{non} - \text{realized possibilities}^{5}$$

The baking example might seem a little bit silly and quite far from the topic of this book, dedicated to job stress. This said, do not forget that there are many workers whose job is precisely to bake cakes. But I would like to continue convincing you of the importance of these concepts by bringing in another work case.

What Can Make a Worker Sick May Be in the Non-visible Part of Their Work

This time we are in a long-term care facility. There is a ward with 20 residents. They are very old and need a lot of support to do all the activities of daily living, like cleaning themselves or eating. In this ward, there are usually two licensed practical nurses (LPNs, sometimes called personal service assistants or healthcare aides). These professionals work in this facility precisely to help and facilitate these activities of daily living. Helping a resident go from their bed to their wheelchair. Helping them get dressed. Making sure they take their medication. Helping them brush their hair. Chatting with them. Cleaning their room. Being two on the ward allows a bit of flexibility for the workers: not all residents have the

5 As most of the work of Clot has been published in French, it is useful to those willing to review the original publications to have the French translations: *réel de l'activité = activité réalisée + possibilités non-réalisées.*

same degree of autonomy. Some require little support, whereas others cannot do anything by themselves. Having two LPNs working together is a way to not break their backs and have a lot of musculoskeletal pain. It also offers more comfort for the residents.

But as you know, not everything always goes as planned. And this day, there is only one of the two LPNs who shows up at work. Despite the efforts of the management team, there is no casual worker available to come and help. This day, there is only one LPN doing the work of two.

Try to think of this fairly common situation together with the notion of reality of the activity, as explained above. There will be some realized activity, which is going to be the result of whatever this single worker will be able to do, despite the circumstances. The LPN will be able to have everyone ready in the dining room before lunch, but this resident will not have the scheduled bath (and will have a quick shower instead); this other resident will not have his daily shave, and this third one will not have the usual 10-minute discussion when waking up. Choices had to be made. Priorities had to be set up. At the end of the morning, everyone is ready in the dining room for lunch. That is what is visible: the realized activity. It does not look perfect, but it might look "good enough" from the outside, for a non-professional, or a family member who rarely visits their relative.

But remember, the realized activity is not the entirety of the activity. There is the entire non-visible part of it: the non-realized possibilities as we called them. The LPN had an increased number of questions. *Whom am I going to give priority to? What sort of care needs to be dropped today? Is it going to be this person or that one who will have to have their bath skipped today? Or both?* While dealing with an increased mental burden, dealing with all these questions, the fear of making a mistake is higher. *What if I give to Mr. X the medication for Ms. Y today? Have I given the correct breakfast to the correct resident?*

It does not make much sense to talk about safety as a shared responsibility between the employer and the worker, as if both parts were equal, in such a context. Talking of safety as a shared responsibility is mostly some employer verbiage aimed at deferring their own responsibility, which they should own because of the subordination relationship they benefit from. When I explain this story, should the LPN make a mistake and give the wrong medication to a patient, does it look fair to hold them accountable for that? This is usually what happens when, after a flight crash, the media speaks of "human error." It is better to preserve the business and have a single individual to blame, rather than questioning executive decisions that indirectly but surely led to the inevitable. We will come back to that point later.

You therefore understand that all these non-visible issues, these internal questions that the LPN wonders, while they are just trying to do their job, are quite real, even though they are not readily visible to the external observer. The reality

of the activity goes well beyond what is observable (in this case, the group of 20 residents, ready in the dining room at 12 noon). And it is not because this dimension of the reality of the activity is not visible that it has no effect on the worker's mental health.

Katia Kostulski, another of my professors of work psychology while I was studying in Paris, summarized this idea as follows:

> The reality of the activity, not easily visible, has psychological effects: it goes beyond the worker's preoccupation, attempts, intuitions, and sometimes, the feeling of unachieved work.[6]

If this is a one-time thing, it might be okay for the worker's mental health. If these situations of understaffing are repeated over time, the chances of the worker developing mental health symptoms definitely increase.

The Problems of Congratulating Workers Who Rush Through Extra Work

Let's go a bit further into the story of this understaffed long-term care facility. So, the LPN has successfully brought all 20 residents to the dining room at the right time. This worker is sweating and recovering as the residents start to eat their meal. The supervisor who was unable to find any casual LPN to fill in for the sick coworker comes and congratulates the worker. "*Thank you so much for your excellent work!*" However, the LPN does not seem very happy about this morning at work, despite these unusual words of recognition.

Congratulating a worker for their hard work in a dire situation, that seems about right, no? The bare minimum. A little bit of kindness that does not cost much but is always appreciated? So why is this LPN still unhappy? There is the memory of the awful morning when they were running, sweating, and cutting corners. The kind words in themselves are not going to compensate for the feeling of a job half-done. But that's not all. Beyond that, there is a serious discrepancy between the judgment the worker has of their own job (a terrible job) and the congratulations coming from the supervisor (a terrific job). One issue here is that

---

6 Translated by the author from the French (« *Ce réel, cette épaisseur de l'activité, pas si facilement observable, n'en est pas moins opérant au plan psychologique: au-delà des occupations du professionnel, il concerne ses préoccupations, ses tentatives, ses intuitions, et parfois le sentiment du travail inachevé* »). From Kostulski K, Clot Y, Litim M, and Plateau S. L'horizon incertain de la transformation en clinique de l'activité: une intervention dans le champ de l'éducation surveillée. *Activités* 2011; 8(1): 129–145.

the LPN may not get such congratulations when the work is really done very well, when they take excellent care of the residents. No, she precisely received the congratulations exactly when the LPN could not have had a worse opinion of their own job. As we mention that point, we are discussing a critical notion in work psychology, which is the recognition of one's work.

Believe it or not, recognition at work is quite a controversial question. We could have decided to take it easily, and state that people need to be recognized at work. It might seem obvious that such recognition is beneficial. The more the better. However, work psychologists brought about some complexity here.

In this controversy, there are two sides. I'm bringing you with me back to 2015, when I was studying work psychology in Paris, at the *Conservatoire National des Arts et Métiers* (CNAM). Those who have visited Paris might have noticed the incredible metro station for lines 3 and 11, where all the inside is made of copper. This metro station, probably my favorite one, is called "*Arts et Métiers*" as it is close to the headquarters of the CNAM. This said, unfortunately, the work psychology department was not located there, but in the fifth *arrondissement* of Paris, close to the Jardins du Luxembourg. This park is a fantastic place to have your sandwich between lectures. Once I was done eating my lunch, I had a 10-minute walk back to the building where we had our sessions.[7] The work psychology department was located on the fourth floor. But this floor was divided into two sides. On the right-hand side, you had the office of Professors Yves Clot, Katia Kostulski, and their colleagues. This side was the "*Clinique de l'Activité*" (clinics of activity) team, where my professors were. On the left-hand side, you had another group: the "*Psychodynamique du travail*" (work psychodynamics) team, with Professor Christophe Dejours and his colleagues. They did not get along well.

Both sides certainly have lots in common, but they also differ and it would be risky for me to conduct a fine comparative analysis here. Both belong to an overall group of academic disciplines called "work clinics."[8] Both are qualitative and micro-level approaches. But there are strong differences between these two streams. Work psychodynamics is embedded in the tradition of Freudian psychoanalysis and is more a psychology of the individual.[9] The clinics of activity, inspired by a cultural-historical approach (educators would rather call it

7 This building is called the INETOP (*Institut National de l'Emploi, du Travail et de l'Orientation Professionnelle* or National Institute for Employment, Work and Vocational Counseling). A lot of important figures, not just in work psychology but also in ergonomics and work physiology, have or had their labs in this building, located at 75 rue Gay-Lussac.

8 Durand-Moreau Q, Le Deun C, Lodde B, and Dewitte JD. The framework of clinical occupational medicine to provide new insight for workaholism. *Industrial Health* 2018; 56(5): 441–451. doi: 10.2486/indhealth.2018-0021. Epub May 17, 2018. PMID: 29769459; PMCID: PMC6172178.

9 Lhuilier D. Cliniques du travail. Collection Clinique du travail. 2006. Toulouse. Erès.

socioconstructivism) and Vygotsky's work, are centered on a work analysis rather than an analysis of the individual.

I am not telling you about the fourth-floor CNAM war between Clot and Dejours just for the sake of outlining the differences between two academic schools you have certainly never heard of. What I'd like to explain here is how both groups envision this notion of recognition at work. They have opposed views. This may well be one of their strongest differences. I'll tell you both, and then you'll see where you fit.

Recognizing Yourself in What You Do is More Important Than Being Recognized by Others

In work psychodynamics, recognition at work is critical. Dejours considers that a worker has to transform the suffering that work provides. As a psychoanalyst, he calls this transformation a *sublimation*. And this transformation is only made possible when the worker is recognized at work. In other words, without recognition, Dejours thinks that there is no possibility of workers experiencing any pleasure from their work.

For Dejours, recognition at work is a stepwise process called recognition dynamics.[10] It is a bit more complicated than just saying "*thank you, you're great*" to a worker. First, there needs to be some sort of work completed. You cannot get recognized if there is no work. Furthermore, the recognition is of what is done, not of the person. Second, someone other than the worker is going to provide a double judgment on the work being done. A judgment on the usefulness (*jugement d'utilité*) is provided by supervisors, subordinates, or customers. It corresponds to how the work completed helps the others, how it corresponds to what was expected. Another judgment is provided on the beauty of the work done (*jugement de beauté*) by coworkers, peers. In other words, it's a judgment on the work provided by someone else who knows that specific work, by a professional. It entails both how the worker complies with the standards of how this specific work is traditionally done (conformity to tradition), and how the worker can provide their extra personal touch (creativity). Once all these judgments have occurred, then come the *narcissistic gratifications* (this indeed is the psychoanalytic way to say it). This is this overall process that is called recognition dynamics. According to Dejours:

> *If the recognition dynamics is blocked, sufferings cannot be transformed into pleasure, and they cannot make sense. Sufferings will then just*

10 Dejours C. Travail, usure mentale. 2008. Paris. Editions Bayard (p. 233).

> *accumulate, and bring the individual on a pathological trend, leading to psychiatric or somatic conditions.*[11]

Meanwhile, Yves Clot considers that managers have a strategic interest in the whole idea of recognition. They can use it as a tool to foster motivation of workers. Recognizing workers' efforts can be a way for managers to weaken the possible reluctance of workers to engage in certain tasks.[12] Furthermore, Clot considers that workers' request to be recognized at work is a problem in itself. Workers have to recognize *themselves* in what they do. He writes this:

> *It is because they do not recognize their job in what they do, that more and more workers do not recognize themselves in their activity and massively ask to be recognized by others.*[13]

In these situations, where work does not make sense to the worker, when the worker is not satisfied with their job, that recognition from others (supervisors, coworkers, customers, the public. . .) becomes an endless quest. It is endless because the external validation provided by evidence of recognition is never going to make up for the absence of internal validation by the worker themselves. In other words, if you cannot recognize yourself in whatever you do at work, being recognized by others is not going to be of any interest to you. So, if you're seeking external recognition, you are likely to have to ask for it perpetually, as it is never going to be enough.

Should Work Have Such a Central Place in Our Lives?

There are situations where, no matter what, work does not make any sense for workers. You remember John, our truck driver redeployed in an office position? Even though, on paper, he is in a safer job that meets his list of restrictions, in a

---

11 Dejours C., ibid. Translated from the French by the author: « si la dynamique de la reconnaissance est. paralysée, la souffrance ne peut plus être transformée en plaisir, elle ne peut plus trouver de sens. Elle ne peut dans ce cas que s'accumuler et engager le sujet dans une dynamique pathogène conduisant à terne à la décompensation psychiatrique ou somatique » (page 238).

12 Clot Y. Travail et pouvoir d'agir. Collection le travail humain. 2008. Paris. Presses Universitaires de France (–253).

13 Clot Y., ibid. Translated from the French by the author: « C'est parce qu'ils ne se reconnaissent plus leur métier dans ce qu'ils font que des professionnels de plus en plus nombreux ne se retrouvent plus dans leur activité et demande si massivement à « être reconnus » » (page 256).

company that has accommodated him, his job does not make any sense to him. He has never seen himself in an office-work career. We must be extremely cautious when judging the interest of a job from the outside.

Some authors have theorized on "*bullshit jobs*": I would advise to be very cautious when qualifying someone else's job as such. It is likely that in any job, there are a number of "*bullshit tasks*" (or unnecessary tasks), with the caveat that it is extremely difficult to even define what such tasks are.[14] Who decides what is a "*bullshit task*"? The worker or the employer? What may look unnecessary to the worker may be critical to a business, for instance. Is a given task always bullshit, or does it depend on the time, or the context?

Here, getting the worker's view is central. I am not sure that I would like to be a truck driver like John, and I am quite certain he would hate taking my job as a professor of occupational medicine. He may well find that I have a bullshit job.

Making sure that a job makes sense to the worker should be a critical step of any return-to-work plan. Even though this may look peripheral or secondary, it is central. This idea of pushing workers back to work as fast as possible has unfortunately transferred to occupational medicine with little criticism or distance. It is possible that this results from some sort of extrapolation of evidence obtained for workers presenting with lower back pain. There indeed is evidence that immediate or early (within 1–7 days) return to work improves lower back pain.[15] However, this idea does not necessarily apply to any worker with any other condition. For instance, research conducted for patients presenting with long Covid so far tends to suggest that a more nuanced approach is more appropriate for them. Recognizing that accommodation must be supported, healthcare providers need to acknowledge that in going over, they may plateau. Workers with long Covid need an approach that is not an "all or nothing."[16]

And for some, it may be better to stay totally off work, without having to deal with healthcare providers or insurers pushing them and making them feel more guilty. I remember this other worker in her fifties, who received a double lung transplant after she got an occupational lung disease. She told me: "*I have a life expectancy of about six years with this lung transplant, I am not going to waste that*

---

14 Durand-Moreau Q, Loddé B, and Dewitte JD. Re: Madsen et al. "Unnecessary work tasks and mental health: a prospective analysis of Danish human service workers". *Scandinavian Journal of Work, Environment & Health* 2015; 41(2): 216–217. doi: 10.5271/sjweh.3473. Epub December 11, 2014. PMID: 25501916.

15 Shaw WS, Nelson CC, Woiszwillo MJ et al. Early return to work has benefits for relief of back pain and functional recovery after controlling for multiple confounds. *Journal of Occupational and Environmental Medicine* 2018; 60(10): 901–910. doi: 10.1097/JOM.0000000000001380. PMID: 29933319; PMCID: PMC6200378.

16 DeMars J, Durand-Moreau Q, Branton E et al. Improving occupational rehabilitation for people living with long Covid. *Journal of Occupational Rehabilitation* 2025; 35(1): 1–3, e221809.

time in retraining." At some point, it becomes a societal question: do we expect all humans to be as productive as possible, squeeze them like lemons to get all of the juice out of them? Or can we acknowledge that some of them have already paid a tough price, and that we can give them a break?

All of this relates to the question of the sense of work: how does pushing a person to work who has good reason to feel close to death make sense[17]? Many things are at play here: financial system sustainability, moral principles making people feel guilty about not working. We need to look at this from a societal perspective: should work be the dominant angle, and can we secure social safety nets to give a break to those who have already paid the price of workplace exposure via workplace diseases or chronic conditions?

This question has recently driven France to make what I would consider a questionable societal choice. They have recently decided to make the attribution of the minimal social income (RSA, *Revenu de Solidarité Active*) conditional on having 15–20 hours of activities per week, which can include professional development, volunteering, etc.[18] This is based on the assumption that if one gets some financial support, one should work for it, one must deserve it, one must earn it. The idea of providing unconditional support to people in a dire situation is progressively disappearing in France. Basically, France has normalized the idea that providing people with an allocation of 594.54 euros per month (approximately 880 CAD or 610 USD) cannot be done without conditions. At that stage, it says more about a societal problem than about work. In such a system, the question of whether such training and activities make sense at this point are not the question. But forcing people to accomplish activities they have no interest in is very different from helping them develop. And it is difficult to help people thrive with their mental health if they are forced into a meaningless job.

It is indeed critical that work makes sense to the person who accomplishes it. However, it is equally as important that work is not the only thing that makes sense in your life. Some would even consider that work has no value in itself: the value resides in the goods and services provided by workers. Work takes a disproportionate place in our lives. It is depressing to see how the productivity globally increases (despite allegations of the opposite based on taking a shorter time span to look at trends; Figure 1), how the number of worked hours per worker drops and still, as a society, we are unable to shift gear and organize our lives around other, more meaningful areas (friendship, hobbies, family. . .).

---

17 I conducted research where I found several peer-reviewed publications substantiating her low life expectancy.

18 Ministère du travail, de la santé, des solidarités et des familles. 1er janvier 2025: changements et nouvelles mesures. Available from https://solidarites.gouv.fr/1er-janvier-2025-changements-et-nouvelles-mesures (accessed on June 3, 2025).

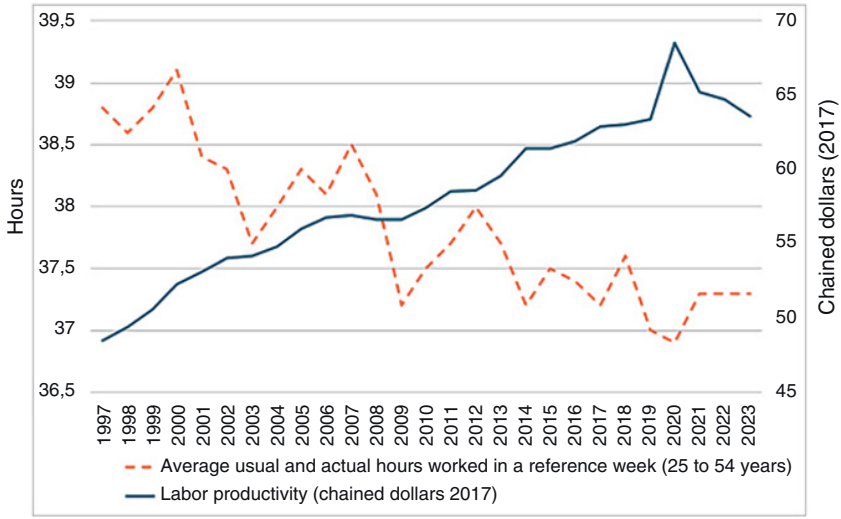

Figure 1 Evolution of the hours worked and the labor productivity[19] in Canada between 1997 and 2023 (data from Statistics Canada)

While lying on their deathbed, many will regret not having spent enough time enjoying life, seeing their relatives; very few will regret not having worked enough. What really matters is usually outside of the workplace.

19 Labor productivity is defined as the ratio between real value added and hours worked. Data are available from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610048001 (for labor productivity data) and https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410004301 (for average hours worked), both accessed on January 14, 2025.

4

What Is Job Stress?

The word *stress* is a very confusing one. It may qualify both the aggression ("*I am under stress*") and the reaction to the aggression ("*I am stressed*"). In our occupational health jargon, we would say that it may qualify as a *hazard* (i.e. the intrinsic properties of a substance, an agent, a process to cause harm). But it may also qualify as a health consequence when exposed to the hazard, which we call the *risk*. Occupational risks are basically the ill-health effects workers face when exposed to dangerous working conditions or hazards. We will come back to the definitions of psychosocial factors, hazards, and risk later, but for now we will focus on the notion of stress.

There have been many different ways (or models) to describe stress, and particularly stress at work or job stress. I am certainly not going to provide you with an exhaustive review of all possible models of stress. I have picked up only on the most important ones in my view. All these models have their interests and their limitations. They serve different purposes. Some models are helpful to build questionnaires to send to large populations of workers and conduct research, for instance. Others have inspired policymakers and left their footprint in psychosocial risk regulations.

The General Adaptation Syndrome from Hans Selye

Our first model is called the General Adaptation Syndrome (GAS), and it has been conceptualized by an Austrian-Hungarian-Canadian endocrinologist called Selye János,[1] more known by his anglicized name of Hans Selye (1907–1982). Selye is

1 When Hans Selye was born, Austria and Hungary were the same country, and in Hungarian, the family name usually comes first.

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition.
Quentin Durand-Moreau.

still nowadays a figure in the field of work-related stress, even though his model was not specific to workplace exposures. He ended his career as a full professor at the Institute of Experimental Medicine and Surgery at the University of Montreal, in Quebec. Nominated 10 times for the Nobel Prize, he never obtained it. It may be for the best as his research was somewhat problematic. I'll explain you why in a moment.

His model was inspired by the concept of homeostasis, which is an important thing for endocrinologists like Selye. Endocrinologists are physicians specializing in glands: thyroid, adrenals, pancreas, pituitary gland, ovaries, testicles.... These glands produce hormones like thyroid hormones, testosterone, progesterone, estradiol.... Hormones act on cell receptors to activate or inactivate certain body functions as needed. The levels of these hormones change during the day, or from one day to another, so our body functions are operating correctly. Theorized by Walter Bradford Cannon (1871–1945), homeostasis is the idea of the equilibrium the human body needs to maintain for its optimal functioning, and hormones normally help achieve this goal.

For Selye, stress refers to the disruption of the body's equilibrium, of the homeostasis, caused by aggressors. In response to these aggressors, the body has a reaction which he called the GAS. In 1950, he wrote:

> *Anything that causes stress endangers life, unless it is met by adequate adaptive responses; conversely, anything that endangers life causes stress and adaptive responses. Adaptability and resistance to stress are fundamental prerequisites for life, and every vital organ and function participates in them.*[2]

As an occupational medicine specialist, I already have a problem with the idea that "*resistance to stress*" should be fundamental. I would usually argue that acting on the root causes of stress is more fundamental than resisting stress. However, Selye was no occupational medicine specialist, and he was far from referring to job stress here. When he wrote these lines, in the 1950s, he referred to stress as any sort of aggression to the body. Stress did not have the same psychological meaning that it has nowadays. In Selye's view, stress is a broader concept. However, many of those talking about the GAS model have forgotten that it does not primarily come from work psychology, and that stress in the 1950s was not specific to mental health. Remember: he was an endocrinologist, not a mental health specialist. This did not prevent the extensive use of this model while dealing with work-related stress.

---

2 Selye H. Stress and the general adaptation syndrome. *British Medical Journal* 1950; 1(4667): 1383–1392.

According to Selye, when we face stress, we will go through the three successive stages of the GAS.

The first stage is called the *alarm reaction*. This is the immediate reaction from our body when exposed to the stressor. Our heart is bumping faster (that is tachycardia). Vessels are constricted in our extremities to bring back the blood to our central organs (that is peripheral vasoconstriction). Our blood pressure rises. We start sweating. Our blood sugar level decreases. All these symptoms prepare us for escaping from the threat. These are caused by an increase in several hormones called catecholamines (adrenaline and noradrenaline) produced by the adrenals, which are two small glands located on top of the kidneys. However, these symptoms are not sustainable in the long term: you are not going to feel great if you have tachycardia for days. This is an initial and temporary reaction.

If the exposure to the stressor continues, we move to the second stage: the *stage of resistance*. At this moment, most of the manifestation from the previous stage disappears or is reversed. Levels of adrenaline and noradrenaline drop, and levels of another important hormone increase: cortisol. Increased levels of cortisol are associated with blood sugar levels going up, as well as anti-inflammatory effects. At this stage, the body gets ready to manage the exposure to a chronic, more durable aggression.

And if, no matter what, the exposure to the stressor continues further, we move to the third and final stage: the *stage of exhaustion*. One way to explain this stage is to refer to the episode of the Simpsons called *Kidney Trouble* in Season 10. Homer Simpson is driving his car. There is a beeping sound. Lisa, his daughter, tells him "*hey dad, that light says 'check engine'*," to which Homer responds: "*uh-oh, tape must've fallen off*." He puts the sticker back over the alarm: "*problem solved*." We can think of what happens at the stage of exhaustion from this perspective. As the levels of cortisol stay high in the long term, corresponding to a chronic alert, when it lasts for a very long time, we do not pay attention to the signal anymore. At the cellular level, the sensitivity of the cortisol receptors decreases (and might be internalized), and increased levels of cortisol are more and more ineffective. The stressor is still there, but all in all, we survived, so what's the point in keeping all of these cortisol-related defense mechanisms ready for action? The same way the "*Simpson-mobile*" keeps functioning despite the engine alert, which Homer ended up hiding behind some tape. At the stage of exhaustion, most of the manifestations of the alarm reaction will reappear.

So why was I telling you that Selye's research may be a bit problematic? It's because he received substantial funding from the tobacco industry. This is enough to cast serious doubt about his integrity and the validity of his research. Tobacco corporations were hoping to spread the message that stress was a greater

cardiovascular threat than tobacco. They were willing to demonstrate that anti-smoking messages generated stress that was worse than cigarette use itself. Researchers Mark Petticrew and Kelley Lee from the London School of Hygiene and Tropical Medicine published a fascinating article in the *American Journal of Public Health* in 2011, documenting the problematic relationship between Selye and the tobacco industry.[3]

Is Measuring Cortisol Levels Necessary to Assess Job Stress?

Nonetheless, there has been a lot of interest in the biology of stress, for instance looking at specific molecules called pro-inflammatory cytokines (such as interleukin 6, or tumor necrosis factor alpha). There is also growing research in the epigenetics[4] of stress, burnout, and depression.[5]

When it comes to the biology of work-related stress, cortisol specifically has sparked a lot of interest. We have just seen that cortisol is the hormone of the stage of resistance in Selye's views. Several researchers have then tried to assess cortisol levels in workers reporting stress. This is of interest to researchers willing to understand the mechanisms of work stress, and how exposure to stressors can lead to health conditions. However, I see here a more problematic use of this kind of research, used to try to "objectivate" worker stress. It is a recurring topic, for more than a century, that anything subjective is deemed debatable, and anything objective is deemed more robust. In 1927, psychologist Lev Vygotsky wrote:[6]

> *The word "objective" has often been popularized and associated with "genuine," whereas "subjective" was associated with "erroneous."*[7]

---

3 Petticrew MP and Lee K. The "father of stress" meets "big tobacco": Hans Selye and the tobacco industry. *American Journal of Public Health* 2011; 101(3): 411–418. doi: 10.2105/AJPH.2009.177634. Epub May 13, 2010. PMID: 20466961; PMCID: PMC3036703.

4 Epigenetics refers to all of the mechanisms that influence the expression of DNA in the cell (« above » genetic factors), such as how a protein can be produced at a certain moment, and stopped later on, for instance.

5 Bakusic J, Schaufeli W, Claes S, and Godderis L. Stress, burnout and depression: a systematic review on DNA methylation mechanisms. *Journal of Psychosomatic Research* 2017; 92: 34–44. doi: 10.1016/j.jpsychores.2016.11.005. Epub November 23, 2016. PMID: 27998510.

6 Vygotski L. *La signification historique de la crise en psychologie*. 1927. French translation from the Russian by C. Baras and J. Barberis. Editions La dispute, Paris. 2010.

7 Translated from the French by the author (« Le terme « objectif » a souvent été vulgarisé et assimilé à « véritable », tandis que « subjectif » était assimilé à « erroné » »), ibid., page 291.

There is always some suspicion cast on workers reporting subjective symptoms (i.e. symptoms that cannot be assessed in an objective way, such as by lab work or imaging). Pain is one such symptom. And workers in pain are sometimes suspected of faking their symptoms to get so-called secondary benefits. This is why, particularly in Western Canada and the United States, there is a whole area of interest in the topic of malingering.

Neuropsychologists have also some interests in malingering (patients they would suspect of malingering more precisely), defined as "*the intentional production of false or greatly exaggerated symptoms for the purpose of attaining some identifiable external reward*."[8] There is even a scale to assess malingering, called the Structured Inventory of Malingered Symptomatology (SIMS),[9] which is a tool aimed at detecting people who lie about their symptoms. Workers may have reasons to inflate some of their symptoms. Some may do so as a way to obtain workers' compensation benefits, which are usually better than any other financial supports.

However, it is extremely unlikely that workers trying to trick the system are a large group of individuals, and that the so-called secondary benefits are *that* profitable to them. The endpoint of exaggerating work-related symptoms may lead to the fraudulent obtention of workers' compensation benefits but may also lead to job loss, associated with social isolation, lack of purpose, and (potentially) sinister mental health conditions as well. Is the game worth it for everyone? Besides, physicians must be extremely cautious about their own bias, should they consider that the topic of malingering deserves specific treatment. For instance, women employees presenting with fibromyalgia have reported that they were perceived as lazy, less productive than other workers, but also malingering.[10] Are we sure that the classification of malingering patients is free from risks of racist, sexist, cultural, or social biases? In France, the notion of "Mediterranean syndrome" has been used precisely as some sort of racist medical justification for maximizing or even faking symptoms by patients coming from Maghreb.[11]

---

8 Franzen MD and Iverson GL. Detecting negative response bias and diagnosis malingering: the dissimulation exam. In: Snyder PJ, Nussbaum PD, and Robins DL (Eds). Clinical neuropsychology: a pocket handbook for assessment. 2nd Edition. 2006. Washington, DC. American Psychological Association (pp. 102–119).

9 Smith GP and Burger GK. Detection of malingering: validation of the Structured Inventory of Malingered Symptomatology (SIMS). *The Journal of the American Academy of Psychiatry and the Law* 1997; 25(2): 183–189. PMID: 9213290.

10 Oldfield M, MacEachen E, MacNeill M, and Kirsh B. 'You want to show you're a valuable employee': a critical discourse analysis of multi-perspective portrayals of employed women with fibromyalgia. *Chronic Illness* 2018; 14(2): 135–153. doi: 10.1177/1742395317714034. Epub June 29, 2017. PMID: 28661193.

11 Lambert M, Lachal J, Mansouri M et al. Mediterranean syndrome and the French medical world, a racist prejudice still active: a parallel with Frantz Fanon's article about the « North African syndrome ». *La Revue de Médecine Interne* 2022; 43(7): 399–401.

In this context, cortisol levels could seemingly provide some sort of service to suspicious physicians. Unfortunately, there is nothing super-convincing in using cortisol levels to try to make sure a worker who says they are stressed because of work, are really stressed because of work. There is no clear direction in this regard, and conflicting results.

Philippe Davezies was an associate professor of occupational medicine at the University of Lyon in France. I would say that he is one of the most influential figures in my own development as an occupational medicine specialist. When he retired from academia in 2015, Davezies was mostly interested in the biology and epigenetics of work-related stress. He has published many publications in the field of work-related stress.[12] He considers that, even though stress is associated with an elevated cortisol level, it is possible that during chronic stress situations, cortisol levels might stay low. Ill-health effects could be related to other molecules, such as the catecholamines for instance.[13] Cortisol might be a relevant indicator of acute stress, but it might be less relevant in situations of chronic stress. According to Davezies, work-related mental health issues can lead to physical health problems such as cardiovascular disease, because of the role of cortisol in inflammatory processes.

Canadian researchers Annick Parent-Lamarche and Alain Marchand have also investigated this question.[14] They conducted a study with more than 350 workers in Quebec, looking at their mental health and their salivary cortisol levels. These researchers were aiming to see whether workers exposed to stressors at work produce more cortisol, which could be responsible for conditions such as depression. They found that certain work parameters (such as skill utilization and job insecurity) were associated with increased levels of cortisol. However, they did not find that the relationship between stressors and depression was influenced by cortisol levels.[15] In other words, even though cortisol and certain job characteristics were found to be linked, this research was not able to demonstrate that such changes were responsible for either worker depression or burnout.

A systematic review published in an endocrinology journal in 2016 found conflicting data when looking at cortisol levels as a way to differentiate individuals

---

12 Davezies P. Stress et pouvoir d'agir. *Santé et Travail* 2008: 64.

13 Davezies P. Suffering at work, emotional repression and musculoskeletal disorders. *PISTES* 2013, 15–2. Available from https://journals.openedition.org/pistes/3376#tocto1n4 (accessed on February 5, 2024).

14 Parent-Lamarche A and Marchand A. Work stress, personality traits, and cortisol secretion: testing a model for job burnout. *Work* 2018; 60(3): 485–497.

15 Parent-Lamarche A, Marchand A, and Saade S. Does salivary cortisol secretion mediate the association of work-related stressors with workers' depression? *International Archives of Occupational and Environmental Health* 2022; 95(2): 477–487. doi: 10.1007/s00420-021-01792-x. Epub October 12, 2021. PMID: 34636976.

with from those without burnout.[16] The authors of this review were clear that cortisol tests should not yet be used in clinical practice for examining any condition, except if a disease of the adrenals is suspected. Another systematic review published in 2011 concluded that no potential biomarkers for burnout were found.[17] I would add to these results that the very unclear definition of burnout is likely to add to the confusing results, but we will come back to that point later on.

Still, as of today, ordering cortisol lab work is not standard practice in occupational medicine to document levels of stress, a mental health condition, or its work-relatedness.

Is Divorcing More Stressful Than Getting a Mortgage? The Fascinating World of Psychophysics

As we have briefly discussed the biological approach to stress, we have focused on internal reactions (i.e. how our body deals with stressors), but we have not spent a lot of time characterizing stressors themselves. Back in 1967, researchers Thomas Holmes and Richard Rahe from the University of Washington did precisely that.[18] At that time, types of stressors were already described, but what was missing was an assessment of the magnitude of each one. In other words, they were willing to classify stressors by intensity. They built up a list of 43 life events constituting the Social Readjustment Rating Scale. To establish the ranking of these stressors, they asked 394 individuals to rank them, compared to marriage, which has been provided with an arbitrary score. Each participant had to decide whether each stressor would require more or less personal readjustment than getting married, and to pick a number that reflects this readjustment proportionally.

This led Holmes and Rahe to the final ranking, provided in Table 2. As you can see, they have listed several work-related stressors. Being fired and retirement belong to the top 10 stressors (well above the death of a close friend). Number 22, change in responsibilities at work, is considered as stressful as having a child leave home or having trouble with the in-laws.

The limitations of the Social Readjustment Rating Scale are quite obvious as we look at them. All these stressors have aged quite a bit since 1967. Divorce is more

16 Cadegiani FA and Kater CE. Adrenal fatigue does not exist: a systematic review. *BMC Endocrine Disorders* 2016; 16(1): 48. doi: 10.1186/s12902-016-0128-4. Erratum in *BMC Endocrine Disorders* 16(1), 2016, 63. PMID: 27557747; PMCID: PMC4997656.

17 Danhof-Pont MB, van Veen T, and Zitman FG. Biomarkers in burnout: a systematic review. *Journal of Psychosomatic Research* 2011; 70(6): 505–524. doi: 10.1016/j.jpsychores.2010.10.012. Epub January 7, 2011. PMID: 21624574.

18 Holmes TH and Rahe RH. The Social Readjustment Rating Scale. *Journal of Psychosomatic Research* 1967; 11: 213–218.

Table 2 Social Readjustment Rating Scale.[19]

Rank	Life event	Mean value
1	Death of spouse	100
2	Divorce	73
3	Marital separation	65
4	Jail term	63
5	Death of close family member	63
6	Personal injury or illness	53
7	Marriage	50
8	**Fired at work**	**47**
9	Marital reconciliation	45
10	**Retirement**	**45**
11	Change in health of family member	44
12	Pregnancy	40
13	Sex difficulties	39
14	Gain of new family member	39
15	**Business readjustment**	**39**
16	Change in financial state	38
17	Death of close friend	37
18	**Change to different line of work**	**36**
19	Change in number of arguments with spouse	35
20	Mortgage over $10,000[20]	31
21	Foreclosure of mortgage or loan	30
22	**Change in responsibilities at work**	**29**
23	Son or daughter leaving home	29
24	Trouble with in-laws	29
25	Outstanding personal achievement	28
26	Wife begins or stops work	26
27	Begin or end school	26
28	Change in living conditions	25
29	Revision of personal habits	24

(*Continued*)

19 Reprinted from Holmes and Rahe (1967) with permission from Elsevier.
20 Adjusted for inflation, 10,000 USD in 1967 would be around 91,000 USD in 2024 (which is unlikely to be sufficient for most home mortgages in the United States nowadays).

Table 2 (Continued)

Rank	Life event	Mean value
30	**Trouble with boss**	**23**
31	**Change in work hours or conditions**	**20**
32	Change in residence	20
33	Change in schools	20
34	Change in recreation	19
35	Change in church activities	19
36	Change in social activities	18
37	Mortgage or loan less than $10,000	17
38	Change in sleeping habits	16
39	Change in number of family get-togethers	15
40	Change in eating habits	15
41	**Vacation**	**13**
42	Christmas	12
43	Minor violations of the law	11

Entries bolded (by the author) are work-related stressors.

common nowadays than it used to be. The $10,000 threshold mentioned does not reflect the current reality of the real estate market in the United States, even adjusted for inflation. These factors depend on the specific cultural context of the United States. The importance of church activities (ranked 35) might have changed since 1967 and may be quite different from one country to another. Stressors are unlikely to be the same depending on one's age.

The idea behind this scale was to try to provide some more objectivity in the assessment of stressors, using methods from a field called psychophysics, "*the study of the psychological perception of the quality, quantity, magnitude, intensity of physical phenomena*."[21] Using the measurement of a physical dimension to assess something subjective was deemed "*a reliable delineation of man's ability to quantify certain of his experiences*." The physical dimension in this scale is represented by the number provided by respondents to reflect the readjustment required when exposed to a stressor, compared to the experience of getting married.

Since then, the theory of Holmes and Rahe has been largely criticized, and it does not seem that many specialists in work-related stress give a lot of credibility to the Social Readjustment Rating Scale today. Criticism came from several

21 Ibid.

professors of psychology, such as Richard Lazarus (1922–2002) and Suzan Folkman. They considered that the impact of stressors is mediated by individual factors, including personality and individual resources. There are no events that are going to lead to the same reactions for everyone. Such reactions depend on individual specificities and cannot be assessed without looking at them.

Coping Mechanisms and the Transactional Model of Lazarus and Folkman

Lazarus and Folkman came up with the Transactional Model of Stress, which includes the notion of coping. This is a transaction (i.e. a relationship) between the individual and the environment. In 1984, Folkman defined stress as a "*relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and as endangering his or her wellbeing*."[22] In this view, stress is not a property of the person or the environment: it results from the transaction between both, in which both are acting on the other (the person influences their environment, the environment influences the person). Stress is considered as a stepwise cognitive process.

Once the individual has perceived some stressor from their environment, the first step is the *primary appraisal*. Is the situation positive or meaningless, in which case it will not tax much of my resources? Or are there risks of harm or loss, threats, or challenges? Whether we see a stressor as positive or harmful depends on our beliefs, such as the belief that we can control the event, and what matters to us individually (called *commitments*).

Once the primary appraisal is complete, there is a *secondary appraisal*. Do I have the coping resources to deal with the situation? What are my options? What can I do? There is an assessment of psychological resources available to deal with the situation, including skills for problem-solving or self-esteem. Material resources are also assessed, whether that be money, tools, or equipment. Basically, if I perceive that I have enough resources to deal with the stressor, I am good. However, if I feel like I do not have enough resources, stress occurs.

The process continues with a third step: *coping* mechanisms. Folkman defines coping as "*the cognitive and behavioral efforts to master, reduce, or tolerate the internal and/or external demands that are created by the stressful transaction*."[23] Coping can be *problem-focused* (also called active, as individuals are trying to change the situation) or *emotion-focused* (also called passive, as people do not try

22 Folkman S. Personal control and stress and coping processes: a theoretical analysis. *Journal of Personality and Social Psychology* 1984; 46(4): 839–852.
23 Ibid.

to change the situation by their individual emotional response). If we translate these concepts to the workplace, coping can involve trying to change the work situation (getting additional tools to complete a task, negotiating further support from the hierarchy...) or deal with the situation (take some distance, relativize by comparing one's performance with other workers'...). Another possible coping mechanism is the *avoidance* of the situation.

The transactional model of stress has certainly inspired the definition of work-related stress from the European Agency for Safety and Health at Work (EU-OSHA)[24]: "*a tension experienced when the demands of the work environment exceed the workers' ability to cope with or control them*." The US National Institute for Occupational Safety and Health (CDC-NIOSH) defines stress as "*the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker*."[25] Many definitions of work-related stress are alike. There is often the idea of an exterior environmental component and the internal individual resources to deal with the situation.

However, certain definitions have interesting subtleties, which must trigger some attention. For instance, in France, an interprofessional agreement signed in 2008 provided this definition[26]: a "*state of stress occurs when there is imbalance between the perception that a person has of the constraints imposed by his or her environment and the perception that he or she has of his or her own resources to cope*." This definition is not particularly satisfactory. Have you noticed that here, stress is not a problem between resources and constraints, but rather an imbalance between *perceived* constraints and *perceived* resources? If you consider that stress results from a double-perception problem, the solution to this becomes quite simple: work on the perception and helping workers improve how they see their environment and their resources rather than on improving their working conditions directly.

An interesting report on work-related stress in self-employed workers, published in France in 2011,[27] noted that not all coping strategies have the same effect. Problem-focused coping strategies are not associated with health issues, whereas emotion-focused coping strategies are associated with ill-health effects. The authors

---

24 European Agency for Safety and Health at Work. *EU-OSHA Thesaurus*. Work-related stress. Available from https://osha.europa.eu/en/tools-and-resources/eu-osha-thesaurus/term/70274i (accessed on February 13, 2024).

25 Centers for Disease Control and Prevention. The National Institute for Occupational Safety and Health (NIOSH). Stress... at work. Available from https://www.cdc.gov/niosh/docs/99-101/default.html#What%20Is%20Job%20Stress? (accessed on February 13, 2024).

26 Accord du 21 mai 2013 relatif à la prévention des risques psychosociaux dont le stress au travail. Available from https://www.legifrance.gouv.fr/conv_coll/article/KALIARTI000027931751 (accessed on February 13, 2024).

27 Inserm. Stress au travail et santé. Situation chez les indépendants. Expertise collective. 2011. Available from https://www.ipubli.inserm.fr/bitstream/handle/10608/217/expcol_2011_stress.pdf?sequence=1 (accessed on February 13, 2024).

considered these findings were in contradiction with the transactional model of stress, as in this model coping strategies are defined irrespective of their efficacy. I would also add that I do not see much difference between applying emotion-focused coping strategies and learning how to be submissive to a problematic work organization. The wording changes, but the basic idea remains the same.

There is a more general problem in presenting work-related stress as resulting from an imbalance between environmental resources (provided in the workplace, for which the employer is ultimately responsible) and internal resources from the worker. We have previously and extensively discussed the unbalanced nature of relationships between an employer and an employee as they act within a subordination relationship. It could be easy to believe, from these definitions, that work-related stress is a 50/50 problem shared between employers and employees. However, this does not make sense, as human relationships at work are skewed. This said, such a vision of work-related stress is aligned with the overall narrative that "*prevention is a shared responsibility*," which is a useful talking point for organizations to protect them as much as possible against structural occupational health improvements, while shifting some of their responsibilities onto the workers' shoulders.

Yves Clot, whom we mentioned previously, took the counterpoint of the French 2008 definition:[28]

> *Stress comes from a work organization that does not provide workers with adequate means to work, and it can also appear when the organization does not have the means to deal with the workers' expectation to provide a quality job.*

You will have already noticed that there are many ways and models to describe work-related stress. There are some more to go through before we finish this very unexhaustive description. Let us go through several important models of work-related stress used in epidemiology.

The Job Demand–Control Model of Karasek

Epidemiology is, simply said, the science of populational health. Better said, it is "*the study of the distribution and determinants of health- and disease-related conditions in populations*."[29] There is a subspeciality, within epidemiology, called

28 Clot Y. L'aspiration au travail bien fait. *Le journal de l'école de Paris du management* 2013; 99(1): 23–28.

29 Holm S. Biostatistics and epidemiology. In: LaDou J and Harrison RJ (Eds). Current diagnosis and treatment. occupational and environmental medicine. 6th Edition. 2021. New York. McGraw Hill.

occupational epidemiology focusing "*on health consequences of workplace exposures to chemical, physical, and biological agents, as well as psychological stressors.*"[30] Looking at populations is absolutely not the same work as looking at individuals. It requires specific methods and tools, in the same way astrophysics requires different tools than microbiology. A microscope will be of limited use to look at stars, and the telescope will be of limited use to look at bacteria. When assessing psychological stressors on large populations of, say, 1000 workers, researchers are going to use questionnaires. There are several questionnaires used in work-related stress research, based on different theoretical conceptions of stress.

The first one, which is probably one of the two most well-known questionnaires, was built by sociologist Robert Karasek. He recently revised (and substantially complexified) his model, which he presented at a conference in Tokyo in September 2023.[31]

Let's keep it simple here and restrict ourselves to the "original" and well-established Karasek model, also known as the job demand–control model, using a questionnaire called the Job Content Questionnaire (JCQ).[32] This is a self-administered questionnaire assessing the social and psychological characteristics of jobs. It is a way to measure work quality, but it does not assess personality traits or non-occupational stressors. This questionnaire looks at three main dimensions.

The first one is *psychological demands*. This is rather self-explanatory. The second one is *decision latitude*, itself divided into two subcomponents: *skill discretion* (referring to flexibility and variety at work) and *decision authority* (referring to the autonomy of making decisions for the worker's own work). This idea is close to the concept of *operational leeway* developed in ergonomics, formerly called *margin of maneuver* (initially translated from the French "*marge de manœuvre*"). It is defined as the worker's capacity "*to adjust his or her work activity in such a way as to stay healthy while meeting output requirements.*"[33] However, it takes into account

30 Costello S, Cavallari JM, Wegman DH et al. Epidemiology. In: Levy BS, Wegman DH, Baron SL, and Sokas RK (Eds). Occupational and environmental health. 7th Edition. 2018. Oxford. Oxford University Press.

31 Durand-Moreau Q, Denis MA, de Araujo TM et al. Quoi de neuf en matière de risques psychosociaux? Retour sur la conférence conjointe ICOH-WOPS et APA-PFAW [What's new about psychosocial risks? An outline of the 2023 joint ICOH-WOPS and APA-PFAW conference]. *Archives des maladies professionnelles et de l'environnement* 2023; 84(6): 101944.

32 Karasek R, Brisson C, Kawakami N et al. The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of Occupational Health Psychology* 1998; 4(3): 322–355.

33 Durand MJ, Vézina N, Baril R et al. Margin of manoeuvre indicators in the workplace during the rehabilitation process: a qualitative analysis. *Journal of Occupational Rehabilitation* 2009; 19: 194–202.

not only the work demands, but also the tools provided. The worker's margin of maneuver allows them to adjust their productivity within their personal conditions. For instance, workers in the automobile industry may need to walk a couple of meters to get some items to add to a car in construction: they may take advantage of this short walk to rest a bit, relax their muscles. Bringing the shelf of items closer to the workstation would remove this walk that does not generate any value added (and hence profit) to the company, but this comes with an increased work pace and fewer opportunities to relax the muscles. Hence, cutting margins of maneuvers increases the risk of developing musculoskeletal disorders for instance. If both ideas (decision latitude and margin of maneuver) have some similarities, Karasek is not going as far as ergonomists, as his model stays at the task level and does not take into account the individual's specificities.

We will put the third dimension on hold for now. At this point, we have assessed both psychological demands and decision latitude with the JCQ, and we are able to get scores in both dimensions. Hence, we can determine whether psychological demands are high or low, and whether decision latitude is high or low. Depending on these scores on both scales, the worker is going to be in one of four different quadrants (as indicated in Figure 2).

The best scenario is normally the low-strain one: you have lots of freedom to do your work, but you have some demands. The worst scenario is when there is a combination of high psychological demands and low decision latitude: you have lots to do and not much freedom to do it. This situation is called *job strain*, which can be considered as a proxy for job stress. Job strain situations are associated with many adverse health outcomes. It has been used extensively to assess the links between job stress and cardiovascular health. A study conducted in France

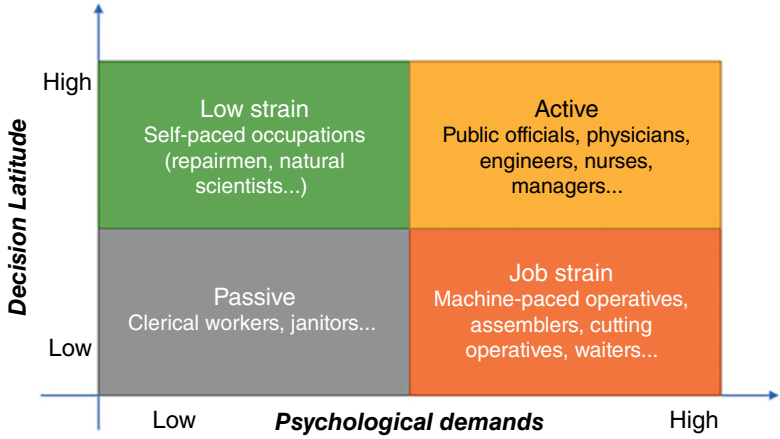

Figure 2 The four quadrants of Karasek's model

analyzing data from 2003 has estimated that around 10% of the mortality from coronary heart disease in men was attributable to job strain.[34] Coronary heart disease and mental diseases attributable to job strain cost at least 1.8 billion euros in France in 2003. A meta-analysis published in *The Lancet* in 2012 showed that the risk of developing coronary heart disease increased by 23% for those in a job strain situation compared to those who were not.[35] The job stress theory is a robust model used in many studies documenting work-related mental health conditions.[36] Exposure to job strain increases the risk of developing depressive disorders.

The third and last dimension assessed in Karasek's model is *social support*. It is a subsequent addition to the model, assessing the support from peers or colleagues, as well as support from supervisors. This dimension allows us to define a scenario even worse than job strain: *iso strain*, which combines job strain (high demands + low decision latitude) and low social support.

Karasek's job demand–control model is undoubtedly one of the most used and solid models of work-related stress used in epidemiology. It could be considered as a gold standard in this field. However, and unsurprisingly, there are some limitations and precautions prior to using this well-designed model.

First, it is important not to compare raw scores of psychological demands and decision latitude across all occupational groups. It is obvious and normal that blue-collar workers are not going to be provided with the same level of decision latitude and psychological demands as white-collar workers or executives. This difference between groups is more reflective of the usual job requirements, which are not the same depending on how close you are to being the Chief Executive Officer of an organization, rather than reflecting higher stress levels. It is best to compare Karasek scores within a given occupational group (comparing Karasek scores in white-collar workers on the one hand and blue-collar workers on the other). Karasek anticipated this issue by providing reference ranges by occupation. However, not all consultants in work-related stress take such precautions.

Another issue would be to consider that only workers in the job strain quadrant would be at risk of mental health issues, and none of those in the other three quadrants. But that is not true, especially if you think of *sidelined* workers.

---

34 Sultan-Taïeb H, Chastang JF, Mansouri M, and Niedhammer I. The annual costs of cardiovascular diseases and mental disorders attributable to job strain in France. *BMC Public Health* 2013; 13(13): 748. doi: 10.1186/1471-2,458-13-748. PMID: 23941511; PMCID: PMC3751631.

35 Kivimäki M, Nyberg ST, Batty GD et al. Job strain as a risk factor for coronary heart disease: a collaborative meta-analysis of individual participant data. *The Lancet* 2012; 380(9852): 1491–1497. doi: 10.1016/S0140-6736(12)60994-5. Epub September 14, 2012. PMID: 22981903; PMCID: PMC3486012.

36 Rugulies R, Aust B, Greiner BA et al. Work-related causes of mental health conditions and interventions for their improvement in workplaces. *The Lancet* 2023; 402(10410): 1368–1381. doi: 10.1016/S0140-6736(23)00869-3. PMID: 37838442.

Another of my mentors, Dominique Lhuilier, emerita professor of work psychology, has extensively studied this phenomenon called *placardisation* in French, which refers to the idea of putting a worker inside a cupboard (*un placard,* in French).[37] In many jurisdictions, it is more profitable for the business to have a worker who resigns, rather than having to fire a worker. The latter comes with several obligations and severance pay. That costs the business money. Instead, it's best to have a worker resign. The problem is when the worker is not willing to resign. Then, some strategies can be used to make them understand that they should resign. Sidelining includes practices such as stopping inviting them to business meetings, stopping providing them with new projects, removing collaborators from their team, ignoring them in meetings.... Such workers have a decreasing workload and would likely score low in job demands with Karasek's model. They could also have lots of decision latitude. They would not be in a situation of job strain. But everyone easily understands that such sidelined workers are not going to have thriving mental health.

Finally, Robert Karasek recently determined that his model, focused on work tasks, deserved to be updated. He considered that he needed to add contextual dimensions to it, namely both the organizational level and the macro-level (i.e. the social and economic context). To assess the organizational level, Karasek took some inspiration from another existing model, the Psychosocial Safety Climate (PSC) model developed by Australian professor of work psychology, Maureen Dollard in 2010.[38] The core idea leading to the development of this model is to look at the causes of the causes. Better said by Dollard and McTernan, the central question here is: *what are the conditions within organizations that give rise to prevailing work conditions*?

A PSC is comprised of four principles:

1) The level of senior management commitment and support for stress prevention.
2) The priority management gives to psychological health and safety versus productivity goals.
3) Organizational communication upwards and downwards in relation to psychological health and safety.
4) The extent of participation and involvement by managers and workers in relation to psychological health and safety.[39]

---

37 Lhuilier D. Placardisés: des exclus dans l'entreprise. 2002. Paris. Editions du Seuil.

38 Dollard MF and McTernan W. Psychosocial safety climate: a multilevel theory of work stress in the health and community service sector. *Epidemiology and Psychiatric Sciences* 2011; 20(4): 287–293. doi: 10.1017/s2045796011000588. PMID: 22201204.

39 Ibid.

The PSC influences both the demands and workers' resources, ultimately affecting their health. Since 2010 there have been an increasing number of publications referring to this model.

The Effort–Reward Imbalance Model of Siegrist

There is a second essential epidemiologic model of work stress conceptualized by Swiss sociologist Johannes Siegrist, called *effort–reward imbalance* (ERI).

This model also comes with a questionnaire, but this one assesses three different dimensions of the individual's work experience.[40] The first one is *efforts* (E), referring to the psychological and physically demanding aspects of the work environment. The second dimension pertains to *rewards* (R), with three different types:[41]

- *Financial rewards* – salary or wage.
- *Status-related rewards* – career promotion or job security.
- *Socio-emotional rewards* – recognition or appreciation.

The assessment of these two dimensions generates two scores (E and R) and can be used to determine an *effort–reward* ratio (ER ratio). The idea is pretty simple. If the rewards you get from your work exceed the efforts you put into it, this is the best scenario for workers. In this situation, R is bigger than E, and the ratio E/R is below 1.[42] On the contrary, if the efforts you put into your work are more important than the rewards you get out of it, the imbalance is unfavorable to the worker. In this case, E is bigger than R, and the E/R ratio is above 1.

There is a third, separate dimension in the ERI model, assessing the worker's *overcommitment* (feeling overwhelmed by work, ability to switch off work...), which is not integrated into the ER ratio calculation.

---

40 Siegrist J, Li J, Montano D. Psychometric properties of the effort–reward imbalance questionnaire. Revised on May 8, 2019. Available from https://www.uniklinik-duesseldorf.de/fileadmin/Fuer-Patienten-und-Besucher/Kliniken-Zentren-Institute/Institute/Institut_fuer_Medizinische_Soziologie/Dateien/ERI/ERI_Psychometric-New.pdf (accessed on February 27, 2024).

41 Siegrist J and Li J. Psychosocial occupational health: an interdisciplinary textbook. 2024. Oxford. Oxford University Press (p. 77).

42 The formula is not exactly E/R, as we are simplifying here. In reality, there is multiplication by a correction factor to reflect the different number of questions assessing the E scale and the R scale, which depends on the version of the questionnaire used. For example, in the 16-version items, the E scale is assessed by 5 questions and the R scale by 11 questions. The correction factor is 5/11 and the ER ratio is E/(R*(5/11)).

This model, based on the theories of exchange and equity, is linked to a neuroscience approach to stress. According to Siegrist and Li, "*sustained experience of reward deficiency at work activates distinct brain reward circuits, including such regions as the nucleus accumbens, anterior cingulate cortex, and insula*."[43] Reward circuits are also involved in the development of addictive behavior. Based on this, Siegrist and Li consider that the loss of social reward can ultimately stimulate addictive behaviors.

As with the Karasek model, the Siegrist model has been used extensively, particularly to try to link ill-health issues with work-related stress. For instance, a 2017 study of more than 40,000 French workers has shown that an ER ratio above 1 (efforts higher than rewards) is associated with a higher body mass index (BMI), and lower "good cholesterol" levels (called HDL cholesterol).[44] In terms of mental health, the ERI is associated with a 50% increase in the risk of depressive disorders.[45]

The ERI model is another extremely solid epidemiological model of work-related stress. However, this one cannot capture the entirety of what being stressed at work is. The model relies a lot on the importance of recognition at work through the rewards scale. We have presented a critical perspective on the notion of recognition in the previous chapter. Recognition by others may or may not be considered as a central element for wellbeing at work. As we have considered that not all stressed workers would fall under the job strain category in the Karasek model, not all stressed workers would obtain an ER ratio above 1. The lived experience of being stressed goes beyond just the assessment of rewards and efforts.

There are solid scales and models (such as the Karasek, Siegrist, or Dollard models), and we have been far from reviewing them all. Some others are less solid and reliable. One last common issue I would like to address is related to the use of self-administered questionnaires themselves. These questionnaires (Karasek or Siegrist) are built with closed-ended questions: this means that the researchers who developed the questionnaire have anticipated the entirety of all possible answers. There is no room to capture anything outside the box, anything experienced by respondents that might be relevant to work-related stress but not related to any of the questions.

---

43 Siegrist J and Li J. Psychosocial occupational health: an interdisciplinary textbook. 2024. Oxford. Oxford University Press (p. 78).

44 Magnusson Hanson LL, Westerlund H, Goldberg M et al. Work stress, anthropometry, lung function, blood pressure, and blood-based biomarkers: a cross-sectional study of 43,593 French men and women. *Scientific Reports* 2017; 7(1): 9282. doi: 10.1038/s41598-017-07508-x. PMID: 28839130; PMCID: PMC5570902.

45 Siegrist J and Wege N. Adverse psychosocial work environments and depression – a narrative review of selected theoretical models. *Frontiers in Psychiatry* 2020; 27(11): 66. doi: 10.3389/fpsyt.2020.00066. PMID: 32174849; PMCID: PMC7056901.

The Limitations of Questionnaires and Job Stress Quantification in Practice

I think it is necessary to take a bit of time here to discuss the use of these questionnaires in daily practice in occupational health, in companies, with workers, as a way to document occupational hazards in a given workplace, rather than conducting academic research. Indeed, these questionnaires, primarily designed to address research questions, are often used as a tool to assess the levels of work-related stress in companies. A little bit like a thermometer. Practitioners who read this chapter, outlining these models, may be tempted to use these questionnaires. There are many caveats and issues to consider first.

It is a misconception to think that it is absolutely necessary to evaluate a risk prior to implementing prevention in companies. In 1989, the European Council has published a directive outlining the nine consecutive steps of the general principles of prevention.[46] Even though employers shall "*evaluate the risks to the safety and health of workers*," the very first of the principles of prevention is "*avoiding the risks*." It's only the risks that cannot be avoided that must be evaluated. Risk avoidance does not require quantification. It has been a recurring question while we were dealing with the Covid-19 pandemic. We acted to prevent without any evaluation, especially in the early stages of the pandemic. We did so because the risk was high (people were dying from Covid) and it was unethical to say "*wait, we cannot do nothing because we do not have a peer-reviewed publication telling us what to do*" (not to mention that good-quality papers take years to be published).

A Belgian professor of ergonomics, Jacques Malchaire, has worked on this question.[47] He considered that the systematic quantification of occupational hazards in workplaces is based on three untruth statements: (1) *what is not quantified does not exist*; (2) *quantification leads to solutions*; and (3) *quantification is required to determine whether an occupational risk exists*. Malchaire does not think that quantification is useless, but it must be used wisely. It is more important to think and reflect on why the quantification is required. Quantification can also be a strategy purposely used to delay the implementation of prevention. It is a *status quo* strategy to claim that "*further quantification is required*," as a semi-scientific-looking argument not to change anything in companies. Numbers always seem scientific, objective, and serious, even in case they are not. With regard to psychosocial risk

46 Council Directive 89/391/EEC of June 12, 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work. Available from https://eur-lex.europa.eu/eli/dir/1989/391 (accessed on March 1, 2024).

47 Malchaire J. Stratégie générale de gestion des risques professionnels: illustration dans le cas des ambiances thermiques au travail. *Cahier de notes documentaires – Hygiène et sécurité du travail* 2002; 186: 39–49.

assessment, and given the limitations of each epidemiologic model, added to the fact that they were initially developed more as research tools, it is necessary to wonder what the quantification adds. From this lens, the interest of quantifying work-related stressors in practice is less obvious. Do we really need to confirm with numbers the existence of work-related stressors, or is it a way to potentially minimize these by comparing with expected average numbers? Does the prevention depend on the magnitude of the stressors, and if so, what does it mean? If there is only one worker who is super-stressed at their workplace, so the average assessment of the entire team is below a concerning threshold, do we dismiss this one worker? Even though the work may be organized so this one worker is really more exposed than the others to psychosocial hazards? What if this one worker eventually commits suicide? The use of questionnaires in workplaces, as an obvious tool to assess psychosocial hazards, must be with the upmost caution and a lot of preliminary thinking. Large-scale approaches may dilute critical and relevant inter-individual differences up until they disappear, making us believe that there is no problem at all.

Johannes Siegrist, who created one of the most used questionnaires to assess job stress as we have just seen, is far from dismissing the importance of qualitative and self-reported data in this field:[48]

> *The working person's interpretation of his or her working situation exerts a crucial impact on the quality and intensity of affective and psychobiological responses to the stressor at work. Therefore, the collection of self-reported information on the perceived and appraised work environment represents a methodological approach of outstanding significance.*

In the case it is relevant to use questionnaires to assess work-related stressors, there are also issues pertaining to the location and time when workers are going to respond. When I was practicing as an occupational medicine specialist in a hospital, I remember vivid discussions in joint health and safety committees, where workers' representatives discuss occupational health and safety matters with employers' representatives. Should the time dedicated to filling out such occupational health questionnaires be considered as pay time? Are the workers expected to fill out the surveys at their work site or using their personal computers? If they have to fill out the survey onsite, are we entirely sure it is going to be confidential and that no one is going to have a look at their answers while they are filling out the forms? Are workers going to answer in the same way with their supervisor close by, or while they are at home? These questions are sometimes

48 Siegrist J and Li J. Psychosocial occupational health: an interdisciplinary textbook. 2024. Oxford. Oxford University Press (p. 110).

overlooked when such questionnaires are used to estimate the levels of work-related stress in companies (or even in certain published research articles).

Even restricting ourselves to the best epidemiological models, used appropriately, we could always find issues, problems, and incompleteness in the models and theories supporting work-related stress questionnaires. There are two ways to deal with this. On the one hand, we could endlessly criticize these models, as they have gaps and they are not perfect. They do not capture the whole lived experience of a stressed worker. A stressed worker can be stressed for reasons that are not assessed in the limited number of closed-ended questions on a questionnaire. On the other hand, we could rather recognize that epidemiology and work psychology do not perfectly overlap with each other. Their goals are not the same. These are different sciences. We cannot ask a tool to assess more than what it was designed to do. We cannot ask a questionnaire designed to be practical, filled out in a couple of minutes, to generate data for thousands of workers, to provide the same sort of information as a qualitative assessment.

This said, I am not going to conclude that epidemiology and qualitative methods are just complementary to each other, trying to make a synthesis that absolutely never worked in the history of psychology (while not being a psychologist myself, on top of it). Psychology professor Daniel Lagache failed in his attempt to "unify" psychology, back in the 1940s when it was already split between experimental psychology (using psychometric tests and numbers) and clinical psychology (mostly psychoanalysis at that time). Such attempts to unify (or create "holistic" or "comprehensive" models) can try to mix up different theoretical anchorings that do not fit together. It might be less depressing to believe that disagreements can be solved, which might be one reason why some people are still trying to mix oil and water in the field of work-related stress.

Johannes Siegrist and Jian Li seem to be on the same page. They consider that a strong theoretical model necessarily transforms the real-life complexity into a restricted number of elements, called *parsimony*.[49] Merging different models with different theoretical underpinnings together creates a new model that loses the distinct explanatory contributions.

In this way, rather than trying to merge qualitative methods and epidemiology in terms of job stress, I think that it's beneficial to challenge epidemiology with qualitative methods, and vice and versa, as a way to enhance conceptual models, recognize their limits and the fact that they serve different goals (such as the telescope and the microscope). All approaches can grow this way, rather than within a unique but theoretically unsound and insipid holistic model.

---

49 Siegrist J and Li J. Psychosocial occupational health: an interdisciplinary textbook. 2024. Oxford. Oxford University Press (p. 84).

5

Is Burnout a Thing? How Does Work Make You Sick?

When a worker experiences job stress, the consequence for them is to get sick, to develop a condition, because of that. We have previously seen that exposure to job stress is associated with a range of physical issues, especially cardiovascular, but it can obviously lead to mental health issues.

Everyone is going to think of burnout as one of these medical outcomes, resulting from exposure to psychosocial stressors in the workplace. It is a commonly used word nowadays, reflecting work-related mental health conditions. However, it is still a controversial entity, not officially considered as a disease by the World Health Organization (WHO). How is it possible that in the twenty-first century we have not yet recognized burnout as a real disease? Well, there are many reasons which we will review in this chapter.

Let's start with a quick historical perspective of work-related mental health issues. My point here is to demonstrate, once and for all, using many examples, that this is not a new topic. This is not a new trend. This pretty much is a very old story, which many folks way cleverer than me have already given a lot of thought to. After this, we will be able to understand how burnout has emerged in this very dense history.

Simone Weil's Work-Related Suicidal Ideas as a Can Factory Worker in the 1930s

Our first stop is the fourth century CE. That is, about 1500 years ago. A Christian monk, called Evagrius Ponticus,[1] was living at that time (345–399) in the Egyptian desert. He was an influential theologist. In particular, he is deemed the first to

1 This was mentioned by Wayne Oates in *Confessions of a workaholic* (1971). We will talk about Oates in a subsequent chapter of this book.

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition.
Quentin Durand-Moreau.

have described the concept of *acedia*, an "*unnatural weakness of the soul, which does not resist temptations*."

Work sociologist Marc Loriol defended his PhD back in 1998. He studied how fatigue and stress became a medical topic. This work constituted the basis of a fascinating book he published the next year.[2] In this book, he provides an interesting historical perspective enlightening the notion of fatigue. Loriol sees in the words of Ponticus a very contemporary description of pathological fatigue, which affects human physical or psychological activity. Monks suffering from acedia lacked motivation in their prayers, which is the essence of monks' work. What's even more remarkable is how Ponticus added that not all monks presented the same levels of acedia. We had two groups of monks: anchorites on the one hand, living in seclusion as hermits, and cenobites on the other hand, living in communities. Cenobites were unlikely to suffer from acedia. Anchorites were at higher risk. It is difficult not to see the influence of social support here, as a protective factor. Those who are alone may be at higher risk of developing mental health issues.

Fast forward to the twentieth century. You might remember Simone Weil, whom we mentioned earlier in this book (Figure 3). It is time to talk a bit more about her.[3] She was a famous French philosopher, albeit a little weird. She was even called a secular saint ("*une sainte laïque*") by philosopher Michel Serres. This probably reflected her incredible capacity to be involved, absorbed even, by something, which looked like the sort of involvement some of the Catholic saints had, although this did not imply any sort of traditional religious commitment in her case. Although she came from a Jewish family, she lately considered herself as a Catholic, but was never baptized.

Born in 1909, she died in 1943, aged only 34, from tuberculosis, likely in the context of severe depression. Although she had a very short life, she left a very important heritage in work philosophy through a bizarre book, called *La condition ouvrière*.[4] Unfortunately, I was not able to find a translation in English.[5] This book

2 Loriol M. Le temps de la fatigue: la gestion sociale du mal-être au travail. 2010. Paris. Editions Anthropos.

3 Do not confuse Simone Weil (the philosopher we are talking about here) with Simone Veil (1927–2017), a famous minister of health in France who was instrumental in the legalization of abortion, and first president of the European parliament. Both are pronounced exactly the same way and are often inadvertently taken one for the other. Many high-school students got confused when they had to comment on a text from Simone Weil in their philosophy assignment for the 2024 *baccalauréat* (the national high-school graduation test in France), to the extent that there has been media coverage (see e.g. in the journal *Sud-Ouest*): https://www.sudouest.fr/politique/education/bac-de-philosophie-qui-est-simone-weil-et-pas-veil-dont-un-texte-fait-partie-des-sujets-20181411.php (accessed on January 21, 2025).

4 Weil S. La condition ouvrière. 1951/2002. Paris. Editions Folio.

5 I have translated the excerpts from *La condition ouvrière* from the French to the English myself, while not trained as a translator. Please accept my apologies in this regard.

Figure 3 Photograph of Simone Weil. Unknown Photographer/Wikimedia Commons/Public Domain

is a melting pot of different things: letters she wrote to different individuals (such as business owners), speeches she gave at a conference, or unpublished articles.

However, the central piece of this book is certainly her diary that she kept from 1934 to 1935. Why did she keep a diary of her life during these two years?

Until 1934, Simone Weil was teaching philosophy in a high school close to a city called Saint-Etienne, in France. She could have been a university professor. Instead, she requested this position in this industrial area, and obtained it in 1931. Later, in 1934, she decided to take a year off teaching. She was willing to go to work in a factory, as a blue-collar worker. It is critical to understand her mindset while she completed a surprising career move. She did it, not as one could do some industrial sightseeing, or as a journalist doing some investigation about the industrial world, or maybe even to find some inspiration to write books. No. It is much stronger than all of that. Simone Weil was animated by the necessity of getting the lived experience of suffering. It really was an absolute necessity for her to really *live the lived experience* in the real world, and not to stay in the abstraction of her own thinking, like some philosophers would do. For Simone Weil, the thinking goes straight with the experience. It is with the same mindset that she got involved in the Second World War, leading different projects and participating in the resistance.

So, Simone Weil gets hired in the industrial world, leaving the relative comfort of being a high-school teacher. On Tuesday December 4, 1934, she started work in a first factory called Alsthom,[6] which specialized in building trains. That

6 Alsthom still exists today. Thanks to various mergers and acquisitions, it is now known as Alstom.

coincides with the first entry in her diary. Actually, it is the second one, as the very first entry is an untranslated citation in ancient Greek. The diary itself is then quite difficult to read, as it is a patchwork of such citations, a list of female workers (just the list of names or nicknames, nothing else), reports of how many pieces she made on a given day (sometimes with illustrative drawings), arguments with her supervisors.... But somewhere in the middle of all of this, you will find some paragraphs where she describes some aspects of her work, such as the work at the oven where she was burnt and got headaches for instance.

She got fired from Alsthom and was hired at a forge called Carnaud on April 11, 1935, on a site located in Boulogne-Billancourt, next to Paris. They made steel sheets for cans up until 1989, when they closed. She describes her very first day there. She was asked to make at least 800 pieces in one hour. She eventually did 600, acknowledging that she cheated a little bit on the counting. It was a very tough day for her. She was not even sure that they would keep her the day after. She describes her mindset at the end of her shift:

> *Despite my exhaustion, I need fresh air so much that I walk back to the Seine River. Here, I sit by the river, on a rock, emotionally exhausted because of this powerless rage, literally burned out. In the case I would be condemned to live this life forever, I wonder whether I would be able to cross the Seine without throwing myself in.*

This is the evidence that, going back as far as 1935, there were already workers having work-related suicidal ideas.

Why Maids Can Kill Their Employers: Louis Le Guillant and the Papin Sisters Case

After the Second World War there was a lot of interest in mental health and work, particularly in France in the 1950s. Four psychiatrists played an important role in what is called the *first wave of work psychopathologists*:[7] Louis Le Guillant, François Tosquelles, Paul Sivadon, and Claude Veil.[8] All of this happened 10–20 years before Freudenberger conceptualized burnout, and before Maslach built up her famous tridimensional model of burnout. Let's talk about two of these psychiatrists: Le Guillant and Veil.

---

7 Billiard I. Santé mentale et travail, l'émergence de la psychopathologie du travail. 2001. Paris. Editions La Dispute.

8 I am unsure whether Claude Veil is a relative of Simone Veil (the minister of health) or Simone Weil (the philosopher), but the pronunciation of the family name is still the same.

Louis Le Guillant (1900–1968) directed a psychiatric hospital in Villejuif, close to Paris, up until he retired in 1965. He was a communist. However, right after the Second World War, many communist psychiatrists took some distance from the party, especially because of the communist criticism of psychoanalysis centered on the works of Sigmund Freud at that time. However, he had good relationships with the nurses' unions and that is why he started to be interested in the study of work conditions, as a psychiatrist. He conducted several research projects with workers, especially with house maids.

Le Guillant was particularly interested in a true crime story that happened in February 1933, in the city of Le Mans. Two maids, Christine and Léa Papin, killed the woman of the house, Madame Léonie Lancelin, and her daughter, Mademoiselle Geneviève Lancelin. And they enucleated both Madame and Mademoiselle Lancelin, meaning that they removed their eyes. With bare hands. Many intellectuals have analyzed this crime, from psychoanalyst Jacques Lacan to movie-maker Claude Chabrol. Le Guillant also wrote about this crime and subsequently studied the working conditions of house maids.[9] The question was: *what drove these maids to commit such a horrible crime?*

Maids were traditionally perceived as being quite dumb, even intellectually defective. This strong common belief probably contributed to the development of a famous comic-strip character called *Bécassine*, imagined by artist Joseph Pinchon in the early twentieth century (Figure 4). *Bécassine* is depicted in traditional clothing from Brittany. She is drawn without a mouth. After all, why would she need one? To say stupid things probably. Why would a woman, and a maid, be willing to speak? She writes in very bad French, with lots of mistakes. The word "bécassine" later entered the common French language as an equivalent of "stupid girl."

On looking at the jobs of persons admitted to his hospital, Le Guillant noted that a large proportion of his patients were maids. Le Guillant combatted vigorously the affirmation that maids were genetically intellectually limited. It was rather the opposite. Maids were *transplanted* from their rural native region to Paris. And it was only the most able ones who were selected to be sent to the bourgeois families in Paris. Le Guillant considered that given the cultural shock they were experiencing as they arrived in the capital city, they were probably not doing so badly all in all. These country girls were looking for better living conditions as they arrived in these families, escaping from tough living conditions on farms. Some of them were orphans or experienced childhood trauma. In addition to this context, Le Guillant pointed out the lack of healthcare benefits provided to them when they needed sick leave. He mentioned the bad housing they were provided with: the maids' rooms, called

9 Le Guillant L. Incidences psychopathologiques de la condition de « bonne à tout faire », 1961. In: Le Guillant L (Ed.). Le drame humain du travail, essais de psychopathologie du travail. 2006. Toulouse. Editions Eres.

Figure 4 Illustration of Bécassine by Joseph Pinchon from the cover of the magazine *La semaine de Suzette*, dated 1920 (public domain)

"*chambres de bonnes*" (another French expression still used nowadays to describe a tiny apartment, on the top floor of an old building, usually occupied by students). All of this constitutes what Le Guillant called the *condition* of being a house maid.

Le Guillant considered that mental ill-health could be a *sociogenetic* process, meaning that the environment is responsible for the individual's mental ill-health.[10] Hence, it is not only in the individual characteristics of Christine and Léa Papin that the reasons for removing the eyes of their employers should be found. Their condition of being house maids was responsible for resentment, which facilitated this crime. They progressively developed hatred for their employers. In this sense, Le Guillant was opposed to those who explained this crime by whatever intrinsic

10 Clot Y. Après Le Guillant: quelle clinique du travail? Introduction to Le Guillant L. Le drame humain du travail, essais de psychopathologie du travail. 2006. Editions Eres.
Clot Y. Après Le Guillant: quelle clinique du travail? Introduction to Le Guillant L. (Ed.). In: *Le drame humain du travail, essais de psychopathologie du travail*. 2006. Toulouse. Editions Eres.

psychiatric condition, such as hysteria, both Christine and Léa could have suffered from. The latter would be called a *psychogenetic* explanation.

Le Guillant was therefore instrumental in pointing out, in the 1950s and 1960s, the effect of the environment and living conditions on the development of mental health issues. This was coherent with a major idea he shared with François Tosquelles: workers need to play an active role in improving institutions. Referring to the context of psychiatric hospitals, Tosquelles said that "*if the hospital wants to cure patients, it needs to be cured itself first*."[11] We cannot help patients get better if we do not improve their living conditions. This also applies to workplaces: if we want workers to get better, we need to fix workplaces first. Take the time to appreciate how contemporary this problem actually is, when we offer ice-cream rounds, pizza parties, or mindfulness workshops as ways to improve workers' wellbeing. All of this has already been thought of some 70 years ago. We can only recognize that there is very little innovation here.

Claude Veil and the End of the First Wave of French Psychopathologists

Now, Let's talk about Claude Veil (1920–1999). He was both a psychiatrist and an occupational medicine specialist. He even advocated for the creation of an official field of occupational psychiatry, which was never approved in France. Veil had a more balanced approach to the mostly sociogenetic approach developed by Le Guillant. Claude Veil considered that there is a double movement between the work environment and the individual characteristics, and the combination of both helps determine whether the worker is adapted or not. His MD dissertation, which is a sort of mini-PhD that residents in medicine have to defend at the end of their training in France, was about industrial fatigue and work organization.[12] Therefore, Veil spent quite a bit of time thinking on this topic. In a text published in 1957, he wrote this:

> *Work-related diseases are common. We will not create any new categories of diseases in this clinic of failure. What accounts for a work-related mental condition is first its settings of onset. Then, healing: it is healed when both the doctor and the patient have understood what happened.*[13]

---

11 Chaperot C and Celacu V. Psychothérapie institutionnelle à l'hôpital général: négativité et continuité. *L'information Psychiatrique* 2008; 84(5): 445–453.

12 Billiard I. Claude Veil, un pionnier de la psychopathologie du travail. *Travailler* 2001; 5(1): 175–188.

13 Veil C. Vulnérabilités au travail. Naissance et actualité de la psychopathologie du travail. 2012. Toulouse. Editions Eres.

I am always amazed at these lines, thinking that they were written in the 1950s, before the conceptualization of burnout. Said otherwise, Claude Veil considers that there is no need to invent new diseases. He rejected burnout as a separate disease, even before it was invented. These have no interest. In his opinion, the diseases presented by workers are likely to correspond to the already existing categories of diseases (depression, anxiety, etc.). What matters is how these conditions develop: these common mental illnesses can definitely be work-related. We will see later that subsequent evidence proved him right.

As we reach the 1960s, stimulating and challenging discussions between these experts (most of them had a double qualification in psychiatry and occupational medicine) have somewhat been exhausted.[14] In 1965, Le Guillant became quite ill and retired. Paul Sivadon, another of the leaders in the field, moved to an academic position in medical psychology in Belgium in 1966. Claude Veil switched to the topic of disability and return to work at the same time. This period, between 1960 and 1980, was called the "dry spell" (la *traversée du desert*) of work psychopathology. Up until Christophe Dejours, another psychiatrist also qualified in occupational medicine, reinvigorated the field in France, bringing his background in psychoanalysis, in the 1980s. You may remember him on his side of the fourth floor of the CNAM building (the left side when you get out of the stairs).

During this French "dry spell" of work psychopathology, there are interesting developments occurring in the United States. There was certainly no connection made at the time with the tremendous work completed by all these French academics. One explanation for this is probably that research was not as globalized in the 1960s as it is nowadays. Think of how easy it is to access academic papers, as opposed to having your sources of information restricted to whatever is available on paper in your library, or corresponding directly with a handful of authors willing to respond to your requests. Another explanation might be the language barrier. Almost all of these publications were written in French. Look at the footnotes in this book: many of the references I am using are in French. Although there are many French speakers worldwide, and in proportion possibly more in the 1960s than in the 2020s, the status of the French language in academia has never overtaken English during this period. In Canada we tend to say that a native French speaker able to speak English is *bilingual*, whereas a native English speaker able to speak French is a *miracle*. Whatever is published in English is more widespread, and probably considered more important than anything that is published in any other language.

This is a considerable limitation of my own book here. I am just able to work in French and in English. I know, for sure, that there is a lot of academic work

14 Billiard I. Santé mentale et travail, l'émergence de la psychopathologie du travail. 2001. Paris. Editions La Dispute.

in the field of work-related mental health completed in other languages, and other parts of the world, including (but not restricted to) Latin America and Asia. This book is nowhere close to being exhaustive. This language limitation makes the book even further from being exhaustive, while increasing the bias of *ethnocentrism* – the belief that the entire world works the way I perceive it from my own culture. However, I am hopeful that, by sharing this francophone knowledge in English, this could be a source of emulation for specialists in the field of job stress.

This being said, Let's go back to the US context in the 1960s.

Herbert Freudenberger, the Overcommitted Psychologist Who Described His Own Burnout

It is time to talk about one of the most influential figures in the field of burnout, psychologist Herbert Freudenberger. I call him influential because the word "burnout" is usually attributed to him. However, psychologist Christina Maslach, whom we will discuss in a moment, considers that the author Graham Greene presaged the use of this expression with his 1961 novel called *A burn-out case*, about a disillusioned architect who quits his job.[15]

As a Jew born in Germany in 1926, Herbert Freudenberger and his family endured the persecutions of the Nazis. In his obituary, Mathilda Canter and his daughter, Lisa Freudenberger, wrote:[16]

> *Freudenberger saw his synagogue burn, his home being destroyed by the Nazis, his grandmother violently beaten and deafened, and his beloved grandfather die.*

Aged 12 he escaped to the United States, starting his life there from scratch. He worked in a manufacturing plant, without any diploma, and started attending evening sessions in psychology at Brooklyn College, up until he obtained his PhD in clinical psychology from New York University in 1956. He spent considerable time working in free clinics in the 1970s, including pro bono activities. These clinics could correspond to addiction centers, where substance abusers received care. He was an expert in drug abuse programs, and this is the work that led him to develop the clinical concept of burnout.

---

15 Maslach C, Schaufeli WB, and Leiter M. Job burnout. *Annual Review of Psychology* 2001; 52: 397–422.

16 Canter MB and Freudenberger L. Herbert J. Freudenberger (1926–1999). *American Psychologist* 2001; 56(12): 1171.

Herbert Freudenberger conceptualized burnout as he himself experienced a degree of exhaustion, being so devoted to his work. In his book *Burnout, the high cost of high achievement, what it is, and how to survive it*, he explains how he first described it.[17] In the 1960s, he was working very hard in his clinic, explaining that his own past in Nazi Germany could have acted as a driver to work even harder to help patients. In doing so, he got more and more irritable, and fatigued. During one Christmas vacation, he realized how he had ruined the family experience, not being able to participate in any activities. He reflected on it and decided what to do next. Here is what Freudenberger wrote:

> *I had to find out why I had become so fanatical about the clinic, working like a madman twenty hours a day, neglecting my health and my family in the process. I decided to talk about the experience into a tape recorder to see what I could learn. My plan was to talk each day, put the tape aside, listen to it the next day, and then talk some more.*[18]

And here we are. Burnout is a concept derived from self-analyzed, self-taped records of Freudenberger. I find some similarity in this process with how baclofen has been introduced in France as an anti-craving medication in patients presenting with alcohol use disorders. The introduction of this medication was based on a 2005 self-case report of a cardiologist, Olivier Amiesen, who used this treatment unauthorized for this indication at that time, to treat his own alcohol use disorder.[19] Research has been completed since then: baclofen does not seem to be an effective medication to maintain alcohol abstinence in the long term.[20] Self-descriptions may not be the best way to make sound progress in the field of mental health, essentially because one lacks distance from one's own experience. Nonetheless, the concept of burnout has emerged and grown substantially since then.

---

17 Freudenberger HJ and Richelson G. Burnout, the high cost of high achievement, what it is and how to survive it. 1980. New York. Anchor Press.

18 Ibid.

19 Ameisen O. Complete and prolonged suppression of symptoms and consequences of alcohol-dependence using high-dose baclofen: a self-case report of a physician. *Alcohol and Alcoholism* 2005; 40(2): 147–150. doi: 10.1093/alcalc/agh130. Epub December 13, 2004. PMID: 15596425.

20 See e.g. Duan F, Zhai H, Liu C et al. Systematic review and meta-analysis: efficacy and safety of baclofen in patients with alcohol use disorder co-morbid liver diseases. *Journal of Psychiatric Research* 2023; 164: 477–484. doi: 10.1016/j.jpsychires.2023.06.042. Epub June 30, 2023. PMID: 37441998. Kotake K, Hosokawa T, Tanaka M, et al. Efficacy and safety of alcohol reduction pharmacotherapy according to treatment duration in patients with alcohol dependence or alcohol use disorder: a systematic review and network meta-analysis. *Addiction* 2024, January 3. DOI: 10.1111/add.16421. Epub ahead of print. PMID: 38173342.

Even if Freudenberger considered that people working in helping professions might be at increased risk of burnout, he did not describe it as a purely work-related problem. He defined burnout as depleting oneself, "*to exhaust one's physical and mental resources, to wear oneself out by excessively striving to reach some unrealistic expectation imposed by oneself or by the values of society*."[21]

He thought that workers in free clinics, staff members, were more prone to burnout than others,[22] because of some sort of specificities restricted to the work accomplished in such settings. It would usually occur a year after someone has begun working in an institution. Then, the symptoms started: physical fatigue, behavioral signs such as irritation, frustration, crying, yelling, screaming.... The victim of burnout would become "a closed book," being excessively rigid and inflexible. They would look depressed. Freudenberger was also quite interested in delineating personalities that would be more prone to burnout: *the dedicated* and *the committed*. He was not so interested in environmental factors. One of the preventive measures he suggested was to screen for the right workers when hiring people, to avoid ending up with people who would "*act as a depressant to the rest of the staff*,"[23] leading to high staff turnover. The screening process suggested by Freudenberger went quite far.

> *You must find out their individual motivations. Why does this person want to work in your clinic? It is also a good idea to try to ascertain what his energy level is. Ask him questions about his health, his routine. Does he become ill often? Catch many colds? Did he ever have mononucleosis? Hepatitis? Does he need a lot of sleep? Does he pursue some active hobby?*

Nowadays, such an interview with such very personal questions, totally unrelated to the tasks to be completed, would obviously be considered as discriminatory, and maybe even against human rights in some jurisdictions.

This flaw of Freudenberger is still very contemporary with wellness experts with no background in labor laws. There are many people involved in managing work stress in organizations, sometimes called "chief wellness officers," or worse even, "chief happiness officers," who may have no particular training in occupational health. One cannot practice in this field without being aware of what is possible and what is not in the world of work, without any idea of how to discuss such things with union representatives. Although it may look good to have people in charge of wellbeing in an organization, the organization can protect itself

---

21 Freudenberger HJ and Richelson G. Burnout, the high cost of high achievement, what it is and how to survive it. 1980. New York. Anchor Press.

22 Freudenberger HJ. Staff burn-out. *Journal of Social Issues* 1974; 30(1): 159–165.

23 Ibid.

against the risk of being questioned about their responsibilities in making workers sick, hiring unqualified staff.

And then we have this:[24]

> *Encourage your staff and yourself as well to get in a lot of physical exercise. If you want to run, then do it. Play tennis, dance, swim, bicycle, exhaust yourself on the drums. Engage in any activity that will make you physically tired. Many times, the exhaustion of the burn-out is an emotional and mental one. It is this type of exhaustion that will not let you sleep. That is why it is not a good idea, in my opinion, to shift into meditation or yoga, which cause a mental dropping. Introspection is not what the burnt-out person requires. He requires physical exhaustion, not further mental strain and fatigue. Go into the cognitive, and the physical, and keep away from the emotional.*

To be honest, I am unable to make sense of this paragraph, coming from Freudenberger's most-cited paper ever. This is a mix of several things. First, we have what has now become the usual stress management talking points: do some sport, relax. . .. All of the ready-made solutions that anyone can bring to pretend to fix stress, while putting the onus on workers. Then, he totally contradicts himself with what he said a few lines above. On the one hand, he suggests hiring people who do not drain their energy in demanding hobbies, but on the other hand, once recruited, he would encourage them to drain their energy in demanding hobbies, to manage burnout.

Finally, the conclusion is bizarre: no yoga, no introspection, "*keep away from the emotional*." I would certainly not recommend yoga as a way to prevent psychosocial risk in the workplace. Some occupational safety organizations recommend against it as well.[25] We will be back to this point later. However, I would not recommend either keeping away from any emotions, as this precisely has a detrimental effect on health. Psychologist Yves Clot reminded us that humans at work are not just information treatment systems, nor mechanical tools.[26] Emotions and cognition are not two separate layers, stacked one on top of the other in our brain. They are together linked to the activity and do not exist separately from the activity people are involved in. Hence, "*keeping away from the emotional*" is a nonsense request: it is just impossible to voluntarily decide to keep away from our emotions.

---

24 Ibid.

25 See e.g. the French Research Institute for Safety website: https://www.inrs.fr/risques/epuisement-burnout/faq.html#e7a81b08-a82a-4d86-bca8-5c8c2a439d9a (accessed on April 8, 2024).

26 Clot Y. Travail et pouvoir d'agir. 2008. Paris. Presses Universitaires de France.

Working conditions were a bit questioned, but not that much. He would make a few suggestions, such as limiting the duration of work shifts, having some paid time off, arranging staff rotation so it is not the same people doing the hard work, or hiring more volunteers. When discussing how to help someone with burnout, he does not mention that work conditions should be improved. It's rather: leave and come back later, or get support. And he ends up writing that while burnout can be avoided as much as possible, it cannot be prevented altogether, which is now to be perceived as a failure of prevention. On the contrary, the goal in occupational health prevention should precisely be to prevent burnout entirely.

One caveat that I have here is that I am reading Freudenberger in the twenty-first century, while he was writing in the 1970s. Still, I struggle to understand his theoretical anchoring. Before him, there were authors who discussed the psychogenetics versus the sociogenetics of work-related mental health conditions. Before him, there were discussions on the need or not to create new diagnoses. Freudenberger was far from being the first author discussing work-related mental conditions. It is important not to forget the contributions of other researchers who worked on these questions before him.

Christina Maslach, the Rise and Academicization of the Concept of Burnout

If perhaps Freudenberger was the first author to conceptualize burnout, it is another psychologist who helped spread the concept: Christina Maslach. Born in 1946, Maslach is well known, not only for her work on burnout, but for her contribution to one of the most important experiments in social psychology, while she was a PhD student under the direction of Phil Zimbardo, who became her husband. You may even have heard of this experiment, called the *Stanford Prison Experiment*. There are many videos and movies about this fascinating story. I will summarize it here.

In 1971, 24 volunteers, free of any mental condition, were recruited to participate in the study. A prison environment was recreated in the basement of the department of psychology at Stanford University, in the San Francisco Bay area. The volunteers were randomly assigned to one of two groups: inmates and guards. Participants were just taking these roles. They were of course not real inmates nor prison guards. However, the experiment went so wrong that they had to prematurely stop it after six days, because the volunteers' behavior became cruel and inhumane. Maslach was the person who decided to stop the experiment. It supposedly demonstrated the impact of the environment on the behavior of perfectly normal people. However, this experiment has been, and is still, criticized

for the ethical problem of putting volunteers in such a situation, as well as for the debatable scientific integrity of the research.[27]

The Stanford Prison Experiment itself is aside from the topic of job stress. However, it is an illustration of what social psychology, the academic field of Christina Maslach, actually is. When she was interviewed in July 2015 at the release of a movie called "The Stanford Prison Experiment" made by Kyle Patrick Alvarez, she was asked about the connection between her work on burnout and the prison study.[28] She said:

> *In social psychology, which is my area of training and Phil's [Zimbardo], we're interested in the individual (that's the psychology) in a social context. What is it about the environment you're in that affects the choices you make and how you behave? With job burnout, what we've been finding is a lot of that. So it's not that people are experiencing burnout because they're weak, or don't know how to cope with life, or have mental problems. They are dealing with a social environment, in their workplace, that is creating certain kinds of stressors and constraints.*

This is a major difference between Freudenberger and Maslach. The former comes from clinical psychology, treating individuals with one-on-one assessments, such as what he did at the free clinic, and not with a strong academic tradition. The latter comes from an academic social psychology background, focusing on how the social context influences the individual.

Christina Maslach considers that burnout first emerged as a "pop psychology" non-academic concept.[29] She would even say that "*burnout was initially a very slippery concept*." She was determined to investigate it more thoroughly. Maslach perceives burnout, not from an individual standpoint (psychogenetic, as we said earlier), but more as the result of a transaction between the individual and the environment. We can see here the connections with the theories from Lazarus and Folkman (whom we reviewed previously) in this vision. Furthermore, Maslach finds it paradoxical that a lot of research has been done to deal with burnout at an individual level, while the organizational factors play a bigger role in its development. In a paper from 2001,[30] Maslach wrote:

---

27 Le Texier T. Debunking the Stanford Prison Experiment. *The American Psychologist* 2019; 74(7): 823–839. doi: 10.1037/amp0000401. Epub August 5, 2019. PMID: 31380664.

28 Interview of Christina Maslach by Cathy Cockrell. « Professor Emerita Christina Maslach recalls famous prison study, now a movie ». Berkeley Psychology website. Available from https://psychology.berkeley.edu/news/professor-emerita-christina-maslach-recalls-famous-prison-study-now-movie (accessed on April 8, 2024).

29 Maslach C, Schaufeli WB, and Leiter M. Job burnout. *Annual Review of Psychology* 2001; 52: 397–422.

30 Ibid.

> *Individual strategies are relatively ineffective in the workplace, where a person has much less control over stressors than in other domains of his or her life. There are both philosophical and pragmatic reasons underlying the predominant focus on the individual, including notions of individual causality and responsibility, and the assumption that it is easier and cheaper to change people than organizations.*

To conduct her research, she interviewed a number of human service workers. It is on the basis of this research that Christina Maslach and her colleague, Susan Jackson, developed the Maslach Burnout Inventory (MBI) in 1981. This questionnaire was initially specifically conceived for human service-specific workers, with the belief, at least initially, that burnout occurs more frequently among individuals who do "people-work," such as caregiving and service workers.[31] Subsequent versions of the MBI have been released, including a version for "*occupations that are not so clearly people-oriented*," called the MBI-General Survey (MBI-GS). This need for a general scale is already suggestive that burnout is a phenomenon that is not restricted to human service occupations.

Christina Maslach's work has been instrumental in shaping burnout as the tridimensional concept we still have today. The three dimensions are as follows:

1) *Exhaustion* – the central dimension of burnout.
2) *Cynicism* – a distant attitude toward the job, also called *depersonalization* in human relation occupations, as a way to put some distance between the worker and the client.
3) *Reduced professional efficacy*.

In the 1981 publication describing the MBI, a fourth dimension (*involvement*) was initially described, but considered weaker than the others and hence optional. This vision of burnout as a tridimensional syndrome is really embedded in Maslach's work, and her MBI questionnaire. To the extent that these three dimensions are even referred to by the WHO in the International Classification of Diseases (ICD). Burnout is listed in the eleventh revision of this classification (ICD-11), published in 2019, as a "*factor influencing health status or contact with health services*," under the chapter Problems Associated with Employment or Unemployment. The WHO defines burnout as follows:[32]

---

31 Maslach C and Jackson S. The measurement of experienced burnout. *Journal of Occupational Behavior* 1981; 2: 99–113.

32 ICD-11 for Mortality and Morbidity Statistics. QD85 Burnout. Available from https://icd.who.int/browse/2024-01/mms/en#129180281 (accessed on April 15, 2024).

> *Burnout is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterised by three dimensions: 1) feelings of energy depletion or exhaustion; 2) increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and 3) a sense of ineffectiveness and lack of accomplishment. Burnout refers specifically to phenomena in the occupational context and should not be applied to describe experiences in other areas of life.*

The WHO uses the three elements from Maslach (in the same order). However, it makes it clear that it is a work-related concept, albeit not a disease. Well, it got clearer after a little communication hiccup they encountered. Back on May 27, 2019, the WHO released a media statement on their website announcing updates to the new version of the ICD, and burnout in particular within that classification. The statement included the sentence: "*it is classified as a medical condition*." At that time, Twitter, the microblogging social platform, was still a frequentable place to visit. I used to be quite an active member, and with several occupational health experts we were extremely puzzled at this very surprising assertion.[33] At no moment has the WHO suggested that they would classify burnout as a medical condition, or as a disease. On the day after (May 28, 2019) they posted a corrected statement, stating: "*it is **not** classified as a medical condition*," with the word "**not**" in bold characters, and still bolded as I am writing these lines.[34]

Criticisms of burnout have not stopped, despite the efforts of Maslach in making this concept more academic. Interestingly, one of Maslach's co-authors in many publications, emeritus professor of work and organizational psychology Wilmar Schaufeli, while developing a new tool to assess burnout (Burnout Assessment Tool, BAT) summarized three main issues existing with the MBI scale:[35] (1) there are problems with the conceptualization of burnout; (2) there are psychometrical issues with the MBI; and (3) the applicability of the MBI for individual assessment is poor. We will discuss the first one in the next section of this chapter, and issues (2) and (3) lumped together in the section afterwards centered on problems with the MBI scale.

---

33 Durand-Moreau Q. Is burnout finally a disease? *Occupational and Environmental Medicine* 2019; 76: 938.

34 It is this revised version that is still accessible on the WHO website: https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases (accessed on 3 June 2025).

35 Schaufeli WB, Desart S, and De Witte H. Burnout Assessment Tool (BAT) – development, validity, and reliability. *International Journal of Environmental Research and Public Health* 2020; 17(24): 9495. doi: 10.3390/ijerph17249495. PMID: 33352940; PMCID: PMC7766078.

Burnout is Still an Unclear Concept 60 Years After it was Coined

The discussion is whether burnout and depression are the same condition, or clearly separated constructs. This has been investigated by several researchers over time, including psychologist Renzo Bianchi. He conducted several projects assessing the overlap between burnout and depression. In other words, he sought to determine whether burnout and depression were distinct or separate entities.

One study conducted in 2017 by Renzo Bianchi and his colleague Irvin Schonfeld is a good illustration of the evidence we can obtain on this matter.[36] They collected data from 911 educational staff from France, including teachers, administrators, advisers.... They asked them to fill a burnout scale (the exhaustion subscale of the MBI-GS, considered by Christina Maslach as the central quality of burnout and the most obvious manifestation of the syndrome), a depression scale (the PHQ-8), and assessed work-related variables (illegitimate work tasks, work/non-work interference, and job satisfaction), and context-free variables (social support, general health status, trait anxiety). Comparing the results of the PHQ-8 and the exhaustion subscale, the authors found that depression and burnout were effectively overlapping:

> *Our finding adds to a growing body of evidence suggesting that burnout and depression correlate to a problematically high degree.*

One persistent argument to justify keeping the concept of burnout is its alleged work-related specificity. You might remember that Freudenberger did not initially conceptualize burnout as a work-related entity. The work-relatedness side of it came later, especially in the work of Christina Maslach. She considers that "*burnout is a problem that is specific to the work context, in contrast to depression, which tends to pervade every domain of a person's life*."[37] Maslach used as a supporting argument an analysis of various conceptualizations of burnout. However, this may be seen as an example of confirmation bias: many burnout questionnaires have been built on the assumption that it is work-related. So, the trick here was to gather concepts initially built as work-related concepts, analyze them together, and confirm from this analysis that burnout is work-related.

---

36 Bianchi R and Schonfeld IS. Burnout–depression overlap: nomological network examination and factor-analytic approach. *Scandinavian Journal of Psychology* 2018; 59(5): 532–539. doi: 10.1111/sjop.12460. Epub June 29, 2018. PMID: 29958322.

37 Maslach C, Schaufeli WB, and Leiter M. Job burnout. *Annual Review of Psychology* 2001; 52: 397–422.

Unfortunately, the evidence supporting the work specificity of burnout is not strong either. Bianchi and Schonfeld, in their 2017 study, concluded that burnout did not correlate better with work-related outcomes than depression. In other words, burnout is not more work-related than depression. As Bianchi and Schonfeld have pointed out, it is not just one study, but now a growing body of evidence, pointing in the same direction. If not all research has demonstrated such a high degree of correlation, a number of publications have since then documented a significant overlap.[38]

Again, it makes limited sense that after more than 60 years of research on burnout, we still have not yet reached a consensus to identify this concept as a separate entity, that would put it in the group of "diseases" rather than "occupational phenomena." Deciding whether burnout goes in one or the other category is not a marginal discussion. It makes a difference in terms of workers' compensation rights and medical guidelines for treatment. Workers can be compensated for work-related ailments but in most jurisdictions, these should usually meet diagnostic criteria for a disease (such as the WHO criteria outlined in the ICD, or the American Psychological Association criteria). Workers' compensation boards usually do not compensate for symptoms or syndromes (i.e. associations of symptoms).

In 2018, occupational medicine professor Paul Frimat was in charge of constituting working groups to review adjudication guides for the compensation of workers for the French Social Security. He asked me to chair the group reviewing the permanent clinical impairment adjudication guide for work-related mental disorders. However, at that time I was transitioning from France to Canada, and it would not have made a lot of sense to have a (newly) Canadian academic occupational medicine specialist chairing this important committee. The group ended up being chaired by my colleague, occupational medicine professor Gérard Lasfargues, and gathered medical advisors for the Social Security, psychiatrists, and occupational medicine specialists. I participated as an international expert. The group had excluded burnout from the list of compensable conditions, as the ICD-11 did not list it as a disease. However, the group recognized that burnout could be associated with other mental health conditions (such as depression, post-traumatic stress disorder [PTSD], anxiety. . .), and recommended that compensation should be provided to workers when there was another documented such condition. The report was sent to the French Social Security in June 2021,[39] but

38 Meier ST and Kim S. Meta-regression analyses of relationships between burnout and depression with sampling and measurement methodological moderators. *Journal of Occupational Health Psychology* 2022; 27(2): 195–206. doi: 10.1037/ocp0000273. Epub March 29, 2021. PMID: 33779198.

39 Durand-Moreau Q, Baro P, Jay F et al. Update of the permanent clinical impairment adjudication guide for occupational mental diseases in France. *Safety and Health at Work* 2022; 13: S294.

unfortunately, to date, there is no indication that our recommendations have been translated into practice.

A couple of years prior to that, in 2017, I contributed to another national working group in France, at the National Authority for Health (*Haute Autorité de Santé*).[40] This time, we were asked to write guidelines for healthcare providers for them to treat patients suffering from burnout. I remember passionate discussions between all members of the working group: occupational medicine specialists, psychiatrists, family medicine specialists, other specialists, and a patient representative. Although not everyone in the group was convinced that burnout was an unreliable concept, we all agreed on the fact that the care provided to patients suspected of burnout must include the identification of other psychiatric conditions, including adjustment disorders, anxiety disorders, depression, or post-traumatic disorders. We also all agreed on the fact that the risk of suicide must be assessed in such patients.

Our idea, aligned with the vision developed by Claude Veil almost 70 years previously, was that work is not responsible for pseudo-conditions. Work makes workers really sick, with real and common diseases that can be found in international classifications. Work can cause real depression in workers. Real depression can lead to worker suicide. Such conditions can be quite severe, and do not lead to any expert conflict as to whether they exist or not, or whether they fall into the group of "diseases," "syndromes," or "phenomena." And when these are work-related, there should be a consensus that workers (or survivors, in case of a suicide) must receive proper compensation. There is no need to develop a parallel classification: parallel concepts are not strong enough, parallel syndromes would foster useless conceptual debates, and would mostly have the effect of preventing workers from receiving the compensation they were entitled to. At this point, I very much wonder whether the perpetuation of this endless debate around burnout may even be an active strategy, a real weapon acting against global progress in workers' compensation for work-related mental health conditions.

The MBI has Psychometrical Issues and Should Not Be Used for Individual Assessment

The tool itself, the MBI questionnaire, is questioned with regard to its reliability. In other words, it is not so sure that the MBI really measures what it pretends to measure. One way to measure a questionnaire's reliability is to calculate the

40 Petitprez K, Boulanger M, members of the working group. *Repérage et prise en charge cliniques du syndrome d'épuisement professionnel ou burnout [Screening and management of burnout]*. Haute Autorité de Santé. 2017. Available from https://www.has-sante.fr/jcms/c_2769318/fr/reperage-et-prise-en-charge-cliniques-du-syndrome-d-epuisement-professionnel-ou-burnout (accessed on April 22, 2024).

Cronbach's alpha.[41] This is a number between 0 and 1. When it is close to 1, it is considered that the items of a questionnaire are highly related: all items of the questionnaire are measuring the same concept. When it is below 0.7, it is usually considered unacceptable. The Cronbach's alpha also depends on the length of the questionnaire (it goes down with a shorter questionnaire). However, a very high value of Cronbach's alpha may also suggest redundancies in the test: you are very likely to have a Cronbach's alpha close to 1 if you ask the exact same question 10 times. Hence, it is critical to assess the value of the Cronbach's alpha while looking at the content of the questionnaire.

Cronbach's alpha values of the subscales of the MBI are 0.90 for emotional exhaustion, 0.79 for depersonalization, and 0.71 for personal accomplishment.[42] The subscale on personal accomplishment would be considered borderline. The emotional exhaustion scale is higher than the other. However, the questionnaire items are very close to each other, and it is somewhat difficult to understand the difference between some questions of this subscale.[43] It is possible that such similarities have contributed to increase the score for this subscale.

All of these numbers are for the original English version. When a questionnaire is translated into another language, you cannot just assume that the internal validity will remain the same. Unfortunately, you have to recalculate the Cronbach's alpha for the translated version. With regard to the French translation of the MBI, it has been shown that the Cronbach's alpha for the depersonalization scale is below 0.70.[44] The French version of the MBI cannot be considered as a psychometrically sound questionnaire.

You can only imagine that if one were to merge the results of MBI obtained from various translations, with such variations in the psychometrical validity, the conclusions from such a study would be difficult to draw.

Awkwardly enough, the MBI scale does not come with cut-offs (i.e. scores that can help determine who has burnout and who does not). This is pretty much unusual when it comes to mental health scales. Scores outlining whether the person has a mild, moderate, or severe risk of having a condition are usually provided. Not for the MBI.

---

41 Tavakol M and Dennick R. Making sense of Cronbach's alpha. *International Journal of Medical Education* 2011; 27(2): 53–55. doi: 10.5116/ijme.4dfb.8dfd. PMID: 28029643; PMCID: PMC4205511.

42 Maslach C, Jackson S, and Leiter M. The Maslach burnout inventory manual. In: Zalaquett CP and Wood RJ (Eds). Evaluating stress: a book of resources. 1997. Lanham, MD. The Scarecrow Press (pp. 191–218).

43 The MBI is protected under copyright. Consequently, the items from this questionnaire will not be reproduced here.

44 Langevin V and Boini S. Risques psychosociaux: outils d'évaluation. Maslach burnout inventory (MBI). *Références en Santé au Travail* 2022; 172: 115–118.

A systematic review published in 2018 in the famous journal *JAMA* (*Journal of the American Medical Association*) attempted to determine the prevalence of burnout among physicians.[45] They precisely attempted to merge the results of the MBI obtained all over the world. They screened databases looking at data on physician burnout, "*without language restriction*." Their conclusions are not very helpful. They found that the prevalence of physician burnout was between 0% and 80.5%, which is a little bit wide in terms of estimates. Moreover, they found that there were 142 unique definitions of burnout. Here is what the authors said about the MBI:

> *Even among the 80.3% (98/122) of studies using an inventory based on the MBI, there were at least 47 unique implementations of MBI versions, cut-off combinations, or both.*

In fact, Maslach did publish some cut-offs in past versions of the MBI manual, but these were removed in 2016. They were determined arbitrarily, based on values determined on a non-representative test population, and were clearly indicated as being unsuited for diagnostic purposes.[46]

There is a last point that I would add to the list of issues with burnout. The research is severely biased when it comes to burnout. There are a lot of publications on physician burnout, and fewer for the non-healthcare industries. When it comes to occupational mental health (sometimes called "physician wellness"), some physicians forget that any worker can be exposed to psychosocial hazards. Psychosocial hazards can be dire in other industries as well. Take the time to think of the work of some judges or police officers dealing all day long with victims of sexual assaults, reviewing reports and graphic evidence in this regard. Take the time to think of funeral service workers helping families who lost a child. Take the time to think of teachers working with children with special needs, while having no way to individualize their teaching. Take the time to think of meatpacking workers, killing animals every single day at work. All of this can be tough and traumatizing even. Psychosocial hazards are certainly not exclusive to healthcare. But research on urologists' burnout is easily published in urology journals, and research on cardiologists' burnout is easily published in cardiology journals. This is perfectly understandable, and it is somewhat reassuring that physicians are preoccupied with their own occupational health. However, the scientific databases

---

45 Rotenstein LS, Torre M, Ramos MA et al. Prevalence of burnout among physicians: a systematic review. *Journal of the American Medical Association* 2018; 320(11): 1131–1150. doi: 10.1001/jama.2018.12777. PMID: 30326495; PMCID: PMC6233645.

46 Brisson R and Bianchi R. Stranger things: on the upside down world of burnout research. *Academic Psychiatry* 2017; 41: 200–201.

are now full of such physician-based publications, compared to fewer publications on non-healthcare industries. This skewness must not invite us to assume that work-related mental health issues do not exist elsewhere.

Hence, in this situation, trying to assess the prevalence of a syndrome that cannot be diagnosed formally is not relevant or possible. Not even interesting. The concept is fatally flawed, and there is limited scientific or clinical background that justifies perpetuating the use, other than its popularity. This goes with many problems: while talking about burnout, we do not talk about the other mental health conditions (PTSD, work-related depression, anxiety...). Such conditions lead to an increased risk of committing suicide, in which case they might be work-related and add to the many workers who die because of their work every year. Dealing with such a *paranosographic* condition (i.e. a syndrome without any sound criteria making it a diagnosis) provides the risk for patients experiencing work-related mental health issues not to receive the appropriate treatment and care they need. It also contributes to minimizing the impact of working conditions on mental health. Everyone would admit that work is stressful, that work can cause burnout. If I say: "*work can make a worker kill themselves*," I sound much more dramatic, but I am closer to a clinical fact. The use of the word burnout may potentially make people talk about it, but this is barely just words. If we keep talking in circles about burnout, we will not make the required progress in improving working conditions.

I cannot see any valid argument that would justify keeping this ill-defined concept. If we have been unable to make it clearer for the past 60 years, it is most unlikely that we ever will.

PTSD is Not the Only Work-Related Mental Health Diagnosis

Basically, the diagnoses that can be considered as work-related mental health conditions are most psychiatric diagnoses in international classifications. There are conditions that are usually unlikely to be caused by work, such as schizophrenia for instance. However, one can imagine that some workplace factors could exacerbate decompensation and generate crises.

A lot of people would think of PTSD as one of the key work-related mental health conditions. There is indeed a lot of interest in preventing work-related PTSD. We can basically delineate two group of work-related PTSD.

The first group is made up of workers deemed at high risk of PTSD: first responders, police officers, firefighters, military workers, ambulance personnel, healthcare workers, train drivers.... A lot of publications and calls for research grants in this field pertain to these workers, already identified at risk because of their job. However, even in this group of workers at risk of being exposed to trauma, not everyone will develop a PTSD. A 2013 review on work-related PTSD pointed out that

the prevalence of PTSD in police officers was less than 10%, despite their high frequency of exposure to traumatic events.[47] The prevalence was found to be higher in firefighters, reaching 20%. Nathalie Nourry, associate professor of occupational medicine at Strasbourg University in France, conducted a study into police officers involved in the Strasbourg Christmas Market terror attacks of 2018.[48] She found that 6.6% of police officers directly exposed to the attacks screened positive for PTSD three months afterwards, which was higher than for those not exposed (0.9%).

The second group of individuals at risk of work-related PTSD is basically made up of all other workers. Any worker is at risk of PTSD, not only first responders. Who can predict where an armed person will threaten a worker? Earthquake-related damage involves banks, slaughterhouses, or law offices where no worker is trained for PTSD prevention. Terror attacks can occur in retail stores, such as the Hyper Cacher in Paris in January 2015, or the Strasbourg Christmas Market in 2018 which we just mentioned (police officers were not the only workers exposed). Warehouses can collapse, such as the Rana Plaza in Bangladesh in 2013: who anticipated that prevention of PTSD would be of interest for garment industry workers? There are unenumerable examples of major trauma occurring in work-places involving workers that are not first responders. Not all workers are treated equally to prevent work-related PTSD.

This interest in PTSD, higher than in other work-related mental health conditions, also probably relates to the fact that we could use ways to do prevention that do not involve looking at the working conditions too deeply. The traumatic event can eventually be seen as an inevitable, unpreventable catastrophe in itself, so the prevention would rather tackle the post-exposure response (debriefing, defusing, resilience training...) rather the work organization in itself. However, a number of traumatic events can be linked to a poor working environment and a low safety culture. The Rana Plaza disaster is a good example of such a situation. Should basic safety requirements be met, the warehouse might not have collapsed. This was not an unpreventable catastrophe. Nevertheless, prevention of PTSD in this regard may help an organization look good as they are tackling work-related mental health issues, without having anyone question the working conditions themselves. It is possibly a reason why the PTSD research in first responders may be better funded than other work-related mental health research projects: the risk that researchers will come up with a publication criticizing bad working conditions is quite low.

---

47 Skogstad M, Skorstad M, Lie A et al. Work-related post-traumatic stress disorder. *Occupational Medicine* 2013; 63: 175–182.

48 Nourry N, Alsayed Obeid S et al. Posttraumatic stress disorder and depression after the 2018 Strasbourg Christmas Market terrorist attack: a comparison of exposed and non-exposed police personnel. *European Journal of Psychotraumatology* 2023; 14(2): 2214872. doi: 10.1080/20008066.2023.2214872. PMID: 37305952; PMCID: PMC10262818.

Workers' Compensation for Mental Health Conditions and Deaths

The national working group I mentioned earlier listed conditions that could be compensated as work-related with a permanent clinical impairment.[49] Depressive episodes, PTSDs, dissociative, conversion, and somatoform disorders were considered eligible for permanent clinical impairment as occupational diseases or injuries. When aggravated by workplace factors, bipolar disorders were also considered eligible for permanent clinical impairment. Although adjustment disorders could be work-related, these were not eligible for permanent clinical impairment, as they are deemed to resolve within six months. Several conditions were outside the scope of our work group: post-concussion syndromes, substance-use disorders, schizophrenia and other non-mood-related psychotic disorders. Again, this work was a proposal submitted by the national group of experts and, as of now, we are unsure that our recommendations were translated into practice in the adjudication process.

Indeed, a number of other mental health conditions can be work-related. As such, depression can also be work-related. Johannes Siegrist and Jian Li have summarized studies showing the pooled risk estimates of depression, depending on different job stress models, such as job strain, or effort–reward imbalance for instance.[50] The pooled estimate goes from 1.14 to 1.99, which means that, when workers are in a situation of job stress, their risk of having depression is increased by 14% to 99%. It is also estimated that about 25% of new depression cases in the working-age population are attributed to workplace stressors.

Stéphanie Boini, an occupational epidemiologist working at the French National Research and Safety Institute (*Institut national de recherche et de sécurité*, INRS), led a review on the effect of exposure to psychosocial hazards on workers' health.[51] She and her team looked at whether the exposure to various psychosocial hazards is associated with mental and physical diseases, symptoms, and events in workers. They found high certainty associations[52] for the following exposures.

---

49 Durand-Moreau Q, Baro P, Jay F et al. Update of the permanent clinical impairment adjudication guide for occupational mental diseases in France. *Safety and Health at Work* 2022; 13: S294.

50 Siegrist J and Li J. Psychosocial occupational health: an interdisciplinary textbook. 2024. Oxford. Oxford University Press (p. 185).

51 Boini S, Colin R, Langevin V, and Gautier MA. Effet des expositions psychosociales sur la santé des salariés. Mise à jour des connaissances épidémiologiques. *Références en Santé au Travail* 2024; 180: 97–111.

52 Boini et al. have defined « high certainty » based on association results found in at least one systematic review or meta-analysis, including at least five longitudinal studies of good quality, or at least five longitudinal good-quality studies with converging results on increased risks. See their publication for further details.

- *High psychological demands* are strongly associated with
  - musculoskeletal disorders at large, albeit somewhat less for lower limb musculoskeletal disorders
  - depressive disorders (and burnout)
  - sleep disorders
  - workplace injuries.
- *Low decision latitude* is strongly associated with
  - musculoskeletal disorders at large, except for lower limb conditions
  - depression, depressive disorders, and burnout
  - workplace injuries.
- *Low social support* is strongly associated with
  - musculoskeletal disorders at large, all locations
  - depressive disorders and burnout
  - sleep disorders
  - workplace injuries.
- *Job strain* (i.e. combined low decision latitude and high psychological demands) is strongly associated with
  - myocardial infarction and strokes
  - type 2 diabetes
  - musculoskeletal disorders at large, especially in the back and neck
  - depressive disorders and depression.
- *Effort–reward imbalance* is strongly associated with
  - myocardial infarction
  - type 2 diabetes
  - musculoskeletal disorders at large, especially in the back
  - depressive disorders
  - sleep disorders.

If the review has found statistically significant common estimates for all these conditions, symptoms, or events, almost none of them is above 2. The number is between 1 and 2. A common estimate at 2 means that the risk of developing the condition is doubled (or increased by 100%), which is still a threshold used by a number of workers' compensation boards to provide compensation. Otherwise said, when exposed to the psychosocial hazard mentioned above (low decision latitude, high psychological demands...), the risk of developing one of the conditions is really increased, but not doubled. This threshold of 2 is considered an extremely high threshold to meet: it is quite restrictive to expect the exposure to an occupational risk factor to double your risk of having the condition, to determine eligibility for compensation. Some countries have shifted away from this approach, such as France. One argument (amongst several technical

statistical arguments) is that common estimates (e.g. relative risk) are often underestimated.[53]

The only exception found in Boini's review is for burnout and exposure to high psychological demands (the common estimate is 2.53).[54] However, we have argued that burnout is not classified as a disease. Besides, if some of these studies use the MBI to assess burnout, as there is no valid threshold, this also hinders the interest of this finding. This said, there is an overlap between burnout and depression. Therefore, one should expect that the magnitude of the effect of exposure to high psychological demands should have a similar association with depression. Indeed, it seems to be the case. Even though the authors were not able to provide a single estimation of a common estimate, they determined that the common estimate for the association between exposure to high psychological demands and depressive disorders was between 1.03 and 4.48.

An interesting report from Eurogip, published in May 2023, described how work-related mental health conditions were effectively compensated in several European countries (Germany, Belgium, Denmark, Spain, France, Italy, and Sweden).[55] The report points out disparities in these countries. Workers' compensation systems are traditionally developed to compensate for physical conditions related to exposures to chemical, biomechanical, or biological hazards. They are not well suited to compensate for work-related mental ill-health. It is easier for such systems to compensate when there is an identified acute, violent event (aggression, trauma...).

Moreover, when workers' compensation boards started to indemnify workers presenting with work-related mental health issues, there was a fear that it would "open the floodgates," according to Canadian occupational law professor Kathrine Lippel (1954–2021).[56] Restricting it to acute exposures is also a way to not compensate a lot of workers presenting with work-related mental health issues, as such conditions rarely occur after a single unique exposure, but through years of working in inappropriate working conditions. When workers develop mental health conditions after being exposed to organizational factors in the long term

---

53 ANSES. *Guide méthodologique pour l'élaboration de l'expertise en vue de la création ou de la modification de tableaux de maladies professionnelles, ou de recommandations aux comités régionaux de reconnaissance des maladies professionnelles*. Rapport d'expertise collective. Juillet 2020. Available from https://www.anses.fr/en/system/files/AIR2019SA0220Ra.pdf (accessed on January 22, 2025).

54 The common estimate is 2.53 with a 95% confidence interval of 2.36–2.71. Interested readers should access the excellent publication from Boini et al., displaying all numbers in summary tables.

55 Eurogip. *Reconnaissance et prise en charge des troubles psychiques liés au travail en Europe (Allemagne, Belgique, Danemark, Espagne, France, Italie, Suède)*. Mai 2023. EUROGIP-184/F. Available from https://eurogip.fr/wp-content/uploads/2023/05/EUROGIP-Reco-et-prise-en-charge-troubles-psy-lies-au-travail-Europe-2023.pdf (accessed on May 21, 2024).

56 Lippel K and Sikka A. Access to workers' compensation benefits and other legal protections for work-related mental health problems: a Canadian overview. *Canadian Journal of Public Health* 2010; 101(Suppl. 1): S16–S22.

(such as excessive workload for instance), it is usually more difficult to have them compensated. All of this reinforces the prominent place given to PTSD in work-related mental health issues.

Suicides can also be related to exposure to psychosocial hazards. The review led by Stéphanie Boini found moderate certainty of associations[57] for:

- *Suicidal ideas* and high psychological demands, high efforts, low decision latitude, low rewards.
- *Suicide* and low decision latitude.

A retrospective cohort study conducted in Australia on over 20,000 participants found that exposure to low job control was associated with an increased risk of mortality.[58] Anthony LaMontagne, a professor of work, health, and wellbeing at Deakin University in Australia, coordinated a publication on work-related suicide. They provided an estimate, based on previously published research, of 10–13% of suicides where work has played a contributing factor.[59]

There is no consensus in Europe for the compensation of work-related suicides. As of 2023, certain countries can compensate these if certain criteria are met (e.g. France, Spain); certain countries very rarely compensate for work-related suicides (e.g. Sweden, Denmark); and certain countries do not compensate for suicide (e.g. Finland).

In several jurisdictions, the compensation for work-related mental diseases is on a case-by-case basis, and the burden of proof is on the worker's shoulders. That is, it's up to the worker to demonstrate that they got sick because of their work. This is much more difficult for them than when there is presumptive coverage.

Presumptive coverage exists in Denmark, for instance for PTSD and work-related depression for workers involved in war zones. In this case it means that, once certain administrative criteria are met (the worker's occupation is on a pre-defined list, sometimes with a specified list of exposures and duration of exposure...), the burden of proof is on the employer's shoulders: employers have to demonstrate that workplace factors have nothing to do with the condition (if they do not want the worker to be compensated). Almost all provinces and territories

57 Boini et al. have defined « moderate certainty » based on association results found in at least one systematic review or meta-analysis, including two to four longitudinal studies of good quality, or several good-quality cross-sectional studies, or few or no longitudinal studies with converging results on increased risks. See their publication for further details.

58 Taouk Y, Spittal MJ, Milner AJ, and LaMontagne AD. All-cause mortality and the time-varying effects of psychosocial work stressors: a retrospective cohort study using the HILDA survey. *Social Science & Medicine* 2020; 266: 113452.

59 LaMontagne AD, Åberg M, Blomqvist S et al. Work-related suicide: evolving understandings of etiology & intervention. *American Journal of Industrial Medicine* 2024; 67(8): 679–695. doi: 10.1002/ajim.23624. Epub June 9, 2024. PMID: 38853462.

in Canada have some presumptive coverage for work-related mental conditions, either for PTSD or "psychological injuries," either for all workers, or restricted to first responders depending on the province or territory.[60]

Even though psychosocial hazards and work-related mental health conditions are far from being a new phenomenon, their compensation is fairly new. Hence, the number of compensated cases is skyrocketing in France for instance: from 54 cases compensated in 2010, the total of accepted cases for occupational mental health diseases was 1566 in 2021.[61] Certain countries still do not compensate work-related mental health conditions on a regular basis: Italy, for instance, has compensated for less than 100 mental health diseases every year between 2010 and 2021.

If I were to summarize and give some take-home message at this point, I would say that too much importance is given to burnout as a topic, compared to the many other mental health conditions that can be work-related. There has been no substantial progress to clarify the concept of burnout for the past 60 years. Work-related mental health conditions should not be restricted to PTSD either. There are other conditions, such as depression, anxiety, or even substance-use disorders that can be work-related. However, these are way more difficult to get recognized, although likely very common (remember: one in four depression cases in working adults is thought to be related to some work factors). Compensation is not provided evenly across the world for workers suffering from such diseases. Worker compensation boards are usually better equipped to compensate for conditions related to a single traumatizing exposure rather than for long-term exposure to psychosocial hazards. This is certainly where we need to make further progress, rather than going in circles with burnout and PTSD.

---

60 Keefe A, Bornstein S, Neis B. "An environmental scan of presumptive coverage for work-related psychological injury (including post-traumatic stress disorder) in Canada and selected international jurisdiction." Prepared for Workplace NL by the SafetyNet Centre for Occupational Health and Safety Research at Memorial University. 2018. Available from https://www.mun.ca/safetynet/media/production/memorial/administrative/safetynet/media-library/projects/PTSD_Presumptive_Coverage.pdf (accessed on May 12, 2025).
Workers' Safety and Compensation Board Yukon. *Psychological Injuries*. Available from https://www.wcb.yk.ca/web-0005/web-0007/psychological-injuries (accessed on May 12, 2025).
Government of Newfoundland and Labrador. "Presumptive coverage for Post-Traumatic Stress Disorder for all workers covered by the workplace health, safety and compensation act." Available from https://www.gov.nl.ca/releases/2018/exec/1204n04/ (accessed on May 12, 2025).
Commission des Normes, de l'Équité, de la Santé et de la Sécurité au Travail. "Admissibilité d'une reclamation attributable à un trouble de stress post-traumatique." Available from https://www.cnesst.gouv.qc.ca/fr/organisation/documentation/formulaires-publications/admissibilite-reclamation-stress-post-traumatique (accessed on May 12, 2025).

61 In France, there is a distinction between occupational diseases (where the exposure happens over a longer period of time) and occupational injuries (where the exposure is a single and acute event). These numbers correspond to occupational diseases.

6

Harassment and Bullying in the Workplace

Toxic personalities and harassment. These are obvious sources of work-related stress. A number of companies have now replaced wallpapers by "no tolerance policies" posters displayed on their walls. For instance, it's difficult to get hold of a physician's office without being told that "*inappropriate behavior will not be permitted*." Any patient calling these offices is suspected in advance of being able to behave inappropriately before having a chance of saying anything. Reminding patients that they should not display toxic behaviors has become a common occupational health prevention strategy, aimed at reducing staff exposure to psychosocial hazards. You have certainly seen such posters, or heard these messages, not only at your doctor's office but in many different service providers, in many different industries. This is one example of efforts made by companies to try to protect their staff against harassment.

However, don't you feel like we are not making any progress? Or that the situation becomes even worse? Are toxic personalities more common nowadays? Why are violence and workplace bullying still a problem today?

It's Up To a Judge to Say Whether There is Harassment (Not a Physician)

Let's start by trying to clarify what *harassment* is. It is a legal concept, and not a medical concept. This implies several things:

1) The definition of what harassment is will depend on the jurisdiction you are located in and, as we will see, there are differences across countries in the definitions of harassment.

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition.
Quentin Durand-Moreau.

2) As it is a legal qualification, it is not up to a physician, nor to an occupational health professional, to qualify something as harassment. It's up to a judge. A patient can *feel* they are being harassed. A physician can write that their patient feels that they are being harassed, but they should not write that they are effectively being harassed (except if a judge said so). It is otherwise risky and may constitute a defamatory statement.
3) As it is a legal qualification, it is not a condition, nor a disease, nor a diagnosis. You do not present with "symptoms of harassment," but harassment can lead to work-related mental issues (precisely the ones we have seen in Chapter 5).
4) As it is not a disease, you cannot get workers' compensation for harassment in itself, but you should for the work-related diseases caused by the harassment. You can go on court to get compensation for the harassment in itself. These are two separate issues.

There is an international legal definition of harassment thanks to the ILO Convention 190, released in 2019.[1] This text is an important step forward in the prevention of psychosocial risks at the international level. The definition lumps "violence and harassment" together:

> *Violence and harassment in the world of work refer to a range of unacceptable behaviors and practices, or threats thereof, whether a single occurrence or repeated, that aimed at, result in, or are likely to result in physical, psychological, sexual or economic harm, and includes gender-based violence and harassment. The term "gender-based violence and harassment" means violence and harassment directed at persons because of their sex or gender, or affecting persons of a particular sex or gender disproportionately, and includes sexual harassment.*

This convention pushes Member States who ratified it to prohibit in law violence and harassment, to provide for sanctions, and to ensure that labor inspectorates have effective means of inspection and investigations of cases of violence and harassment. As of March 2025, 49 out of the 187 Member States have ratified this convention, the first ratifying country being Uruguay (Table 3).

Then, there are different definitions of harassment in each single country. In Anglo-Saxon countries, harassment is usually related to discrimination on protected grounds. The judge will recognize you are being harassed if the harassment

1 Normlex. C190 – Violence and Harassment Convention 2019 (No. 190). Available from https://normlex.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C190 (accessed on June 11, 2024).

Table 3 List of countries (ILO member states) who ratified Convention 190 on violence and harassment, and dates of ratification until March 2025

Country (ILO Member States)	Date of ratification
Albania	May 6, 2022
Antigua and Barbuda	May 9, 2022
Argentina	February 23, 2021
Australia	June 9, 2023
Austria	September 11, 2024
Bahamas	November 30, 2022
Barbados	September 1, 2022
Belgium	June 13, 2023
Canada	January 30, 2023
Central African Republic	June 9, 2022
Chile	June 12, 2023
Cyprus	March 4, 2025
Denmark	June 6, 2024
Ecuador	May 19, 2021
El Salvador	June 7, 2022
Estonia	December 18, 2024
Fiji	June 25, 2020
Finland	June 7, 2024
France	April 12, 2023
Germany	June 14, 2023
Greece	August 30, 2021
Ireland	January 12, 2023
Italy	October 29, 2021
Kyrgyzstan	June 3, 2024
Lesotho	March 15, 2023
Mauritius	July 1, 2021
Mexico	July 6, 2022
Montenegro	February 27, 2025
Namibia	December 9, 2020
Nigeria	November 8, 2022
North Macedonia	October 20, 2023

(*Continued*)

Table 3 (Continued)

Country (ILO Member States)	Date of ratification
Norway	October 6, 2023
Panama	November 1, 2022
Papua New Guinea	September 27, 2023
Peru	June 8, 2022
Philippines	February 20, 2024
Portugal	February 16, 2024
Republic of Moldova	March 19, 2024
Romania	June 12, 2024
Rwanda	November 1, 2023
Samoa	May 31, 2024
San Marino	April 14, 2022
Somalia	March 8, 2021
South Africa	November 29, 2021
Spain	May 25, 2022
Uganda	August 7, 2023
United Kingdom of Great Britain and Northern Ireland	March 7, 2022
Uruguay	June 20, 2020
Zambia	December 13, 2024

is related to your sexual orientation, your gender, your ethnicity, or any other ground for discrimination.

Let's take the situation of Canada. This country has a federal structure, and occupational health and safety legislation is a provincial or a territorial responsibility (except for federal workers). In the province of Alberta, for instance, harassment is defined as follows:[2]

> *"Harassment" means any single incident or repeated incidents of objectionable or unwelcome conduct, comment, bullying, or action by a person that the person knows or ought reasonably to know will or would cause offence or humiliation to a worker, or adversely affects the worker's health and safety and includes*

2 Province of Alberta. Occupational Health and Safety Act. Statutes of Alberta, 2020, Chapter O-2.2, current as of December 7, 2023. Available from https://kings-printer.alberta.ca/1266.cfm?page=O02P2.cfm&leg_type=Acts&isbncln=9780779845408 (accessed on May 23, 2025).

- conduct, comment, bullying or action because of race, religious beliefs, colour, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status, gender, gender identity, gender expression, and sexual orientation, and
- a sexual orientation or advance,

but excludes any reasonable conduct of an employer or supervisor in respect of the management of workers or a work site.

Despite this extensive list of factors of discrimination, this vision of harassment is quite restrictive. People may be the target of inappropriate behavior in the workplace, unrelated to their ethnicity or sexual orientation, or any other ground for discrimination. This more general idea, that people may be the target of inappropriate behavior, without any grounds for discrimination, is referred to in some jurisdictions as *bullying*, but it is not necessarily a legal concept in Anglo-Saxon countries.

However, in other countries, harassment can be related or unrelated to any discrimination on protected grounds. There is no need to demonstrate that the individual has grounds for discrimination to qualify as harassment. Actually, you can cumulate both separate issues: being harassed and being discriminated against. The ILO definition in particular does not state that harassment is tied to grounds for discrimination.

This difference already introduces a degree of complexity if we try to appraise harassment at an international level.

Harassment, Mobbing, Bullying…: The Confusion With So Many Similar Concepts

There are way too many synonyms and related concepts. We mentioned bullying, but there is also mobbing, petty tyranny, scapegoating, or emotional abuse.[3,4] Some authors would use some of these concepts as synonyms. But some others would be very offended if you were to think that harassment was the same thing as bullying. We experienced this on receiving feedback from a reviewer assessing

3 Shelton TL. Mobbing, bullying, & harassment: a silent dilemma in the workplace. Research Paper 149, 2011. Available from https://opensiuc.lib.siu.edu/cgi/viewcontent.cgi?article=1157&context=gs_rp (accessed on June 11, 2024).

4 Fiorentino A. Approche comparative de la jurisprudence relative au harcèlement moral au travail, *Revue de droit comparé du travail et de la sécurité sociale*, 2 (2018). Available from http://journals.openedition.org/rdctss/1942; DOI: https://doi.org/10.4000/rdctss.1942 (accessed on June 12, 2024).

one of our research papers on this topic.[5] Everyone needs to understand that these nuances are not necessarily clear, especially as the translation of each single one of these terms may lead to similar words in another language. For instance, there is no specific word in French to translate "scapegoating." This should be an argument to calm down those people who are picky with words.

Katherine Lippel addressed the linguistic problem around the many synonyms for harassment:

> *Vocabulary and definition, be they scientific, social, or legal, are sometimes influenced by the evolution of the legislation itself, and this may lead to confusion. The interface between discriminatory harassment and psychological harassment/bullying/mobbing/victimization is a case in point. In most Anglo-Saxon jurisdictions, legislation prohibiting discriminatory harassment, based on a prohibited ground such as gender, race, ethnicity, sexual orientation, has existed for a long time, often introduced in human rights legislation. Sexual harassment in particular has often been the subject of prevention campaigns in workplaces in English-speaking countries. This has led some to suggest that the word "harassment" is the term that refers exclusively to discriminatory harassment, while "bullying" refers to a different phenomenon similar to that described in the scientific literature (...). This analysis may well reflect linguistic practices in Australia, but clearly doesn't work in French-speaking jurisdictions, or even in Canada, where the term "harassment" or "workplace harassment" is used in both collective agreement and legislation to designate what Caponecchia and Wyatt would call "bullying."*

It was traditionally considered that harassment referred to repeated behavior.[6] However, this criterion has changed over time. Now, according to the ILO, even a single event can constitute harassment.

You can therefore understand the difficulty in grasping a clear, unambiguous, and internationally valid definition of harassment. I think that the criteria provided by the Government of Canada are quite sensible:[7]

---

5 Galarneau JM, Durand-Moreau Q, Cherry N. Reported harassment and mental ill-health in a Canadian prospective cohort of women and men in welding and electrical trades. Annals of Work Exposures and Health. 2024; 68(3): 231-242. 10.1093/annweh/wxad083. PMID: 38169001; PMCID: PMC10941725.

6 Lippel K. The law of workplace bullying: an international overview. *Comparative Labor Law and Policy Journal* 2010; 32(1): 1–13.

7 Government of Canada. *Is it harassment? A tool to guide employees*. Available from https://www.canada.ca/en/government/publicservice/wellness-inclusion-diversity-public-service/harassment-violence/harassment-tool-employees.html#c2 (accessed on June 14, 2024).

- The respondent (i.e. the person considered as being the harasser) displayed an improper and offensive conduct.
- The behavior was directed at the complainant.
- The complainant was offended or harmed, including the feeling of being demeaned, belittled, personally humiliated, embarrassed, intimidated, or threatened.
- The respondent knew, or reasonably ought to have known, that such behavior would cause offense or harm.
- The behavior occurred in the workplace or at any location or any event related to work.
- There was a series of incidents or one severe incident.

Leymann's Mobbing and Hirigoyen's Moral Harassment

Mobbing is another concept, close to harassment. Swedish psychologist Heinz Leymann is considered the one who coined this word. He considered that mobbing was equivalent to psychical (or psychological) terror, and defined it in 1989 as "*hostile and unethical communication which is directed in a systematic way by one or a number of persons toward one individual*."[8] Temporary conflicts do not constitute mobbing. He described four phases in the process of mobbing a worker:

1) *The original critical incident*, a short initial conflict.
2) *Mobbing and stigmatizing*, where there are repeated actions, over a long period of time, aimed at causing damage to the victim, whether it is their reputation, isolating the person, stopping providing work to the person, threatening the person, or being violent with the person.
3) *Personnel administration*, when the management steps in, taking a small portion of the overall situation, and possibly "buying" the narrative that the problem is the victim's personality.
4) *Expulsion*, when the victim is expelled from the job.

Leymann thought at the time that 10–15% of suicides in Sweden happened in circumstances of mobbing, which would not be a highly surprising figure if we remember (as mentioned earlier) that nowadays, 25% of new depression cases and 10–13% of suicides are thought to be work-related.[9]

---

8 Leymann H. Mobbing and psychological terror at workplaces. *Violence and Victims* 1990; 5(2): 119–126.

9 LaMontagne AD, Åberg M, Blomqvist S et al. Work-related suicide: evolving understandings of etiology & intervention. *American Journal of Industrial Medicine* 2024; 67(8): 679–695. doi: 10.1002/ajim.23624. Epub June 9, 2024. PMID: 38853462.

The situation in France is interesting. French people specifically use the concept of "moral harassment" (*harcèlement moral*), typically referred to as mobbing. This concept emerged in France thanks to the book of a psychiatrist, Marie-France Hirigoyen, published in 1998.[10] Initially, this book did not specifically deal with workplace harassment and Marie-France Hirigoyen was initially not a specialist of work topics either. She has written on other topics, such as family issues, domestic and children violence. Nevertheless, that book on moral harassment has been very impactful for many workers. For the first time, some workers, experiencing workplace issues they were not able to identify precisely, felt that someone understood them with this book. This to the extent that some workers came to visit their occupational medicine specialists, brought the book to clinic, and told their doctor: "*I do not need to explain you anything, you just have to read this book, the author understands what I am going through!*"

What is remarkable is that it is because of the huge societal impact of this book, specifically, that the Labor Code changed in France, to add the notion of "moral harassment." The law changed within four years after the release of the book, which is a very swift legal response.[11] Although harassment was commonly thought to happen within a subordination relationship (i.e. "vertical descendant harassment" from someone in power harassing their collaborators such as a director toward their employees…), the law did not specify anything in terms of hierarchical relationships in the definition. Hirigoyen considered that this law was helpful in recognizing the deleterious effect of working conditions on mental health in France.

Interestingly, Hirigoyen herself considered that there was an over-mediatization of the expression "moral harassment" that tended to become the one-size-fits-all explanation for the diversity of possible work-related mental health problems.[12] Exactly like when the workers brought her book to their occupational medicine specialist. She regretted that the many other psychosocial hazards were not yet recognized. This is a key issue with harassment as a concept, that I will illustrate with a case.

---

10 The title of this book is *Harcèlement moral : la violence perverse au quotidien*, translated into English as *Stalking the soul: emotional abuse and the erosion of identity*. A word-for-word translation would be « *moral harassment: the daily perverse violence* ».

11 Hirigoyen MF and Bonafons C. Commentaires à propos de la loi française sur le harcèlement moral au travail. *PISTES* 2005: 7–3 https://journals.openedition.org/pistes/3154 (accessed on June 18, 2024).

12 Hirigoyen MF. La souffrance au travail et les pathologies émergentes. *L'Information Psychiatrique* 2008; 84: 821–826.

Josiane, the Secretary Who Has Seen the Devil in the Eyes of Her Boss

Josiane was 58. She worked as a medical secretary. She had been referred to my work-related mental health clinic, while I was working in France. Her mental health was quite low. She had significant issues with her boss, the family physician she was working with. She started by telling me that her boss had "*the Devil in his eyes*." How did Josiane come to this conclusion? Let's start from the beginning.

In the 1970s, Josiane left high school with no diploma. At that time, she did not get along very well with her parents. She decided to move from the countryside of Brittany to Paris. There, she started to work in catering. She met her husband, and felt that it was time to go back to her home area. In the 1990s, she got married and gave birth to two children. She stopped working and became a housewife, up until the youngest was eight years old in 2000.

This is when Josiane decided that it was time for her to go back to the workforce. Her husband was working as a pharmaceutical sales representative. His job consisted of making appointments with physicians, to advertise the medication produced by the pharmaceutical company he worked for. This job allowed him to build up a solid repository of many physicians. By chance, at that time, he was aware of a family physician who was looking for a secretary. He made the introductions between Josiane and the doctor, and off she went: she became a medical secretary.

The family physician in question was in the latter part of his career. The clinic did not have a computer. It was all paper files. The patients' appointments were noted on a paper agenda. It was not very difficult for Josiane to manage these office tasks, welcome the patients, and keep the charts up to date. It was quite a chance: she hated computers, and she did not even own one at home at that time.

Several years afterwards, it was finally time for this old-fashioned family doctor to retire. A younger one took over the clinic. This was a radical change for Josiane. She felt bullied by him. She told me that he yelled at her, that he was harassing her. He was horrible to her. This had a significant impact on her mental health: she became sick, developed a depressive disorder, and was on sick leave for several months.

Let's pause the story here for now. We will come back to Josiane a bit later. At that point, one could conclude that Josiane had the bad luck of working with a bad employer. Someone that we could qualify as having a "toxic personality" or providing her with a "toxic work environment." Being yelled at is no good for a worker. She was not sick prior to this new employer entering into her working life, and became sick afterwards. She had no prior mental health issues in her life, ever. The previous doctor was a great boss. This new one is a bully. That's it. This could have been my analysis, but I think it is much more complicated than that.

Toxic Personalities: A Simplistic Explanation for Work-Related Mental Health Issues

When I searched the PubMed scientific browser for "toxic person" or "toxic personalities," there were no relevant reviews that I was able to find. I was similarly unsuccessful with the same search on the American Psychological Association (APA) website.[13] There are blogs or other websites providing some information about what they think this covers, but not a lot of scientific publications are mentioned. Although the expression is quite frequently used, there does not seem to be much science behind this concept. This said, toxic personalities are sometimes a way to qualify people presenting with personality disorders, such as perverse-narcissistic people. We all have various *traits* of various nature: obsessive, dependent, paranoid, narcissistic.... If having such narcissistic *traits* may not be a significant problem, when they become serious enough they may constitute a narcissistic *disorder*. According to DSM-5-TR (the current version of the international classification of mental disorders), the clinical features of a narcissistic *disorder* include at least five of the following criteria:[14]

- *Having a grandiose sense of self-importance, such as exaggerating achievements and talents, expecting to be recognized as superior even without commensurate achievements.*
- *Preoccupation with fantasies of success, power, beauty, and idealization.*
- *Belief in being "special" and that they can only be understood by, or associated with, other high-status people (or institutions).*
- *Demanding excessive admiration.*
- *Sense of entitlement.*
- *Exploitation behaviors.*
- *Lack of empathy.*
- *Envy toward others or belief that others are envious of them.*
- *Arrogant, haughty behaviors and attitudes.*

A number of workers who experience job stress would find colleagues or supervisors that would easily "tick these boxes." Maybe you, on reading these lines, are thinking of that one coworker that was making your life hard at work and you may wonder whether that was a narcissistic worker.

---

13 Both searches were completed on June 24, 2024 with the keywords "toxic person" and "toxic personality."

14 Mitra P, Torrico TJ, and Fluyau D. Narcissistic personality disorder [Updated March 1, 2024]. In: StatPearls. 2024. Treasure Island, FL. Available from https://www.ncbi.nlm.nih.gov/books/NBK556001#. StatPearls Publishing (accessed on June 19, 2024).

It is difficult to estimate the prevalence of people presenting with narcissistic personality disorder, but it is estimated that the range in the United States is between 0% and 6.2% of the population.[15] These figures must be taken with caution, as the quality of the measure is variable.

With a diagnosis of perverse narcissistic disorder comes a very easy explanation for harassment. As a worker, you are unlucky enough to be working with someone with such personality traits. And that's it.

This is the reason why there are innumerable books based on this explanation, giving workers strategies to help them deal with toxic personalities at work. Such books would triage people: the toxic versus the good ones. For some authors, this would be good and convincing enough. This approach is much too simplistic to be of any value to me.

Enlarging the Picture: The Oriented Activity Theory

Behind this, there is another theoretical assumption that I would like to explore further, which pertains to the level of analysis of workplace conflicts, mostly seen as resulting from interpersonal conflicts.

I am going to back up a little bit, and refer again to the work of psychology professor Yves Clot. According to Clot,[16] work is an activity that is oriented toward three directions: the self, other people, and the work object itself (Figure 5). All of these three elements are connected together thanks to work instruments, which can be either symbolic (e.g. language, non-verbal communication) or technical (e.g. tools, a computer, a machine). Let's clarify all of this right now.

Work is an *engaging* activity. We have previously discussed how work is an activity that goes beyond whatever is observable. Remember: the reality of the

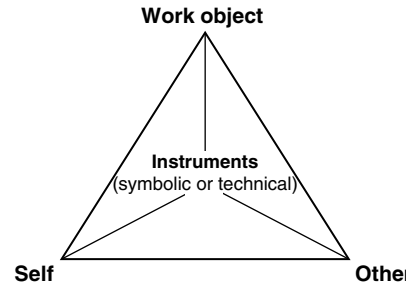

Figure 5 The oriented activity theory from Yves Clot

15 Ibid.

16 Clot Y. Travail et pouvoir d'agir. Collection Le travail humain. 2008. Paris. Edition des Presses Universitaires de France (p. 167).

activity includes the realized activity (what you do) and all of the non-realized possibilities that are not directly observable. This makes work an activity that goes beyond just the production of movements (as any machine would do). Work is an engaging activity also because you are doing it, using your own experience, your own background, your credentials and training, but also your own life history. I usually summarize the latter with this question: *what makes you do what you do?*[17] What brought you there? Take the time to think about it for yourself. You might have a job. Why this job in particular, and not another one? What, other than job opportunities, pay levels, and benefit packages, made you pick up this one and not another one? This is not a peripheral question, and it may significantly influence your way of working.

The experience of another one of my patients is a great illustration of this idea. Although Patricia was in her fifties, she was a rookie at her job. After a first career in banking, moving along the hierarchy and becoming a branch director, she decided to quit and shift her career. Why? At that time in her life, her mother became very sick. She visited her a lot in her continuing care facility, and she was impressed by the work of auxiliary nurses. They provided such great care of her mother up until she passed away. After that, she reconsidered her career choices. Working in banking no longer made any sense to her. She was willing to feel really helpful, and decided to become an auxiliary nurse, aged 50. She was successful, and joined a team of experienced workers, in a night pool, in a long-term care facility.

She came to that job equipped with her willingness to do good, her motivation, her desire to replicate the care her mother received (or, at least, what she perceived of the care she received). Why could she not do an extra round during the night? They would do two, so she thought she could do three. Why could she not help her day-shift colleagues by doing a little bit of extra cleaning? They are so busy during day times, so why not help there?

Unfortunately, this quickly went very badly with her experienced colleagues, who had worked in this long-term care facility for more than 15 years. Adding extra work? Doing more? Nope. That was not the plan. Patricia felt progressively belittled, and harassed by her colleagues, because of her willingness to do better.

That's a common story. A new worker joins an existing team, bringing some energy that is not necessarily well received by the existing team. You now understand that we are obviously going to go beyond the easy explanation, that she had joined a team of "jerks." This explanation is useless. Once you have said that, there is absolutely no practical perspective to come out of it, except by firing Patricia, or firing the rest of the team. This is a purely interpersonal explanation that is not sound enough. Let's go a bit deeper.

---

17 Or in French. "*qu'est-ce qui fait que tu fais ce que tu fais*?"

Patricia is unexperienced, contrary to the existing team who have literally survived 15 years of night shifts in that working environment. We do not know whether the organization treats them well. But Patricia joined that team *entirely*. It's not just a "professional" who joined, it's a professional with a *self*. The self which, in her situation, is tightly connected to her own mother's death. Hence, it is possible that someone with a different personal story would have lasted a bit longer in that team.

On the other hand, it is similarly too easy and judgmental to qualify the other professionals as being unkind, or unprofessional even. We usually only have one side of the story. I discussed with Patricia, but with none of her coworkers. Even if we need to trust our patients, we need to be very careful in assuming that our patients are always objectively the kindest and the others (their supervisors, their coworkers...), whom we usually do not meet with, are always the evil ones. We must find a way where the notions of "good" and "evil" are not judgment criteria in a good work analysis.

Working is a transaction. A contract that you have with your employer (there was a reason why I bothered you so much with labor laws and contracts in Chapter 2). You do some work in exchange for some pay. For sure, you can do a little more than expected. Maybe you will be better positioned to get a pay rise or promotion next year. In some organizations, that is the way it works. But in other organizations, it never translates into practice. "*This is a transition year*." "*We cannot afford to pay you more*." "*The company is in trouble*." "*We will see later*." "*Let's see where you are at the next review*."

This goes with Mauss's theory of gift and counter-gift, as emerita professor of work psychology Dominique Lhuilier would explain:[18]

> *The gift is an equivalent of debt: the obligation to give back is the essence of any gift relationship, even though we cannot restrict it to a purely utilitarian perspective. The counter-gift only sometimes exists, and the main rule to comply with is even denying the gift and its counter-gift. If the gift is labeled as such, the relationship shifts from a gift relationship towards a contractual engagement if these terms are explicated.*[19]

---

18 Lhuilier D. Cliniques du travail. Collection Clinique du travail. 2006. Toulouse. Editions Eres (pp. 122–123).

19 Translation from the French by the author: « *Le don est alors synonyme de dette: l'obligation de rendre est l'essence de toute relation de don sans pour autant qu'on puisse réduire le retour à une perspective utilitariste. Le rendu du don n'existe pas toujours et la principale règle à respecter est même de faire en sorte que dans l'échange, le don et son retour soient l'un et l'autre niés. Si le don est nommé comme tel, si ces termes sont énoncés, il perd son caractère de don pour celui de l'engagement contractuel* ».

This may seem a bit complicated, but it is not. Basically, it means that when you make a gift (e.g. working a little bit more, going beyond expectations), there is a universal expectation of getting something back (called the counter-gift, which will be a reward, a pay raise...). However, if there is no counter-gift ever received, or if these do not meet expectations (say that instead of a pay rise you're invited to an office pizza party), this informal mechanism is broken. You're not going to make any further gifts. The informality is important in this mechanism: you are never clearly told how much more you need to work to get the pay rise. But once you get the pay rise, the new expectations are written into a contract, and what you used to do as a gift, expecting to get a counter-gift, is now written clearly in your revised work contract: it becomes part of your regular work duties.

Looking back at Patricia's colleagues, it is a possibility that they never considered they were getting their counter-gifts, and agreed to stop doing anything more as a result. This probably helped them survive in this work environment for so long. Patricia, by bringing her own *self* into these established working habits, broke them. It also certainly and abruptly provided these other professionals with a terrible image of themselves, unmotivated, maybe unprofessional, no longer engaged in whatever they were doing, compared to the dynamic Patricia. Hence the conflict between them. Can all of this be reduced to a problem of toxic personalities? That may be tempting, but it would not be super-convincing in my opinion.

Let's go back to our triangle (Figure 5). We have just detailed what we mean by *self*. What about the other two extremities?

No matter what, work involves *another* person. It may be a colleague we are working with, a boss we are working for, a customer we are providing a service to.... Work is an activity always directed to some other(s).

This being said, work is not just any activity we are doing with some other people. Work involves the last angle of the triangle: what we are supposed to do in our job (the *work object*). People are put together, in the presence of one another, with the purpose of accomplishing something. Even though people come to work with their own *self*, like Patricia, they do not come just with their *self*. They also come with their work experience, credentials, skills. Anything that means they are able to do the job. Clearly, you cannot separate the three extremities of the triangle and call that a work activity. All three elements (self, other, work object) connected together through symbolic and technical instruments, are integral to the work activity.

These connections are so critical that it influences the way we can think about solving work-related mental health issues, and conducting prevention actions with regard to psychosocial risks.

Failing to appraise work as a tridimensional activity may lead to the risk of seeing it as a purely interpersonal relationship. People would be in the presence of each other. They would have good or bad relationships. They would get along

together or argue against each other. And we would pay no attention to the work object, which normally is the very reason that brought these two workers together. That is precisely what people do when they analyze interpersonal relationships and restrict their analysis to personality compatibility issues. I will illustrate this point to make it clear, as it is time to continue the story of Josiane that we left earlier.

Looking at Josiane's Story from the Work Rather than the Interpersonal Standpoint

Josiane, as a secretary, is convinced that her employer has the devil in his eyes. He is mean. He is harassing her. One could psychologize this employer and speculate that he would have a toxic personality, a narcissistic personality disorder. That would be a purely interpersonal analysis of the situation. Two people may argue against each other in this way, whether at work, at home, at church, at the cinema, in the bus, at the airport.... It would not matter where.

However, Josiane and her boss are together in this work position to accomplish something together: the work object. In this situation, it is providing care to the patients. The physician delivers the care. The secretary provides the logistics so the care is provided, by securing the appointments and organizing the medical records. There are instruments involved in this process. The charts themselves, or the agenda are the technical objects shared by both Josiane and her boss to do the job. They have to talk and communicate together, using symbolic objects, including professional jargon. What brings them together skews what would be a banal interpersonal relationship to a real work activity.

And as we are looking at a work problem, one must not dismiss, or fail to analyze, what goes wrong on that side of the triangle. There are key issues there to look at.

You remember that Josiane is not an IT person. She has no computer at home, and she has been working in the clinic with the previous physician for many years, dealing with paper charts and making notes of the appointments on a paper agenda. The new physician arrives and throws a computer in her face. Metaphorically. But in practice, this is exactly how Josiane experienced it.

You also remember that Josiane has absolutely zero credentials in healthcare. She was recruited, thanks to the involvement of her husband, to fill a position that was seen as just organizing paper charts and the agenda. She was recruited to the position not because she was skilled (there is no evidence at all that she was), but because she was the wife of someone in the professional network of the previous physician. As psychiatrist and work psychodynamics specialist Marie-Pierre Guiho-Bailly told us, we are not supposed to be at work because of who we *are*; we

are supposed to be at work because of what we *do*. A romantic relationship or friendship brings people together because of who they *are*, not work.

This is the basis of her legitimacy as a medical secretary. This also comes, maybe with a little bit of misogyny in this phenomenon. Let me explain that.

Back in the day, most occupational medicine specialists in France were trained with the same textbook: the "*Desoille*," coordinated by a figure of post-Second World War occupational medicine, Henri Desoille. Two political streams were playing a significant role in the history of occupational medicine in France in the first half of the twentieth century.[20] One was connected to the far right and involved figures such as Medicine and Physiology 1912 Nobel Prize winner Alexis Carrel linked to the collaborationist regime between the Vichy France of Philippe Pétain and the Nazi Germany of Hitler. Their main idea was to select the labor force and get rid of the useless people who could not meet all of the job requirements. They launched the idea of fitness for work as a way to carry out what they called the "*biological orientation of the labor force*." This history probably explains part of the contemporary reluctance of many French occupational medicine specialists to deal with anything close to the idea of selecting workers, still vivid nowadays.

The other stream was situated on the opposite side politically, and involved Henri Desoille. I was able to get a copy of the 1975 version of his textbook.[21] It starts with his inaugural lecture, which he gave on March 18, 1949.[22] His main idea is often summarized as follows: "*occupational medicine should not be an invention aiming at removing from the workplace workers who could work despite their disabilities*." Desoille was advocating for work accommodation, rather than worker selection. He cared a lot about workers. Nonetheless, his textbook also included a chapter called Special Problems and a sub-chapter called Women Work.[23] Yes: "*special problems*!" In this chapter, far from any evidence, the

---

20 This history is brilliantly narrated by emeritus associate professor Philippe Davezies in this paper: Davezies P. L'aptitude médicale dans le système français de santé au travail: origines, interrogations et débats. *Médecine du Travail et Ergonomie* 2007; XLIV: 73–82. Available from http://philippe.davezies.free.fr/download/down/2007_Aptitude_origine.pdf (accessed on June 26, 2024).

21 As a matter of fact, the secondhand copy I obtained was previously owned by Dr. Joseph Lebhar, who happened to be one of the co-authors of the Desoille textbook. Joseph Lebhar (1921–2011) was a resistant during the Second World War. He was a respirologist and an occupational medicine specialist. He was, like me, a member of the International Commission on Occupational Health (ICOH). You can learn about the life of Joseph Lebhar at this website: http://mvr.asso.fr/front_office/fiche.php?idFiche=617&TypeFiche=3 (accessed on June 26, 2024).

22 Desoille H. Le médecin du travail face aux problèmes techniques et économiques de l'industrie. March 18, 1949. In: Desoille H, Scherrer J, and Truhaut R (Eds). Précis de médecine du travail. 1975. Masson.

23 Desoille H, Scherrer J, and Truhaut R (Eds). Chapitre 2. Travail féminin. In: Précis de médecine du travail. 1975. Paris. Masson (p. 861).

authors provided some information about the vocational preferences of women:[24]

> *Regarding principal areas of interest, psychologists consider that boys prefer action and adventure novels, whereas girls like domestic and romantic stories and social documentaries. We can note the interest in clothing, fortune tellers, shopping, and manipulating shopped items. This is not a criticism. Girls would rather play the cashier rather than the aviator officer. It is probably better to enjoy handling objects rather than destroying them. Specific interests are seen in girls: those about children and family, household chores, specific technical work, jewelry, watchmaking, porcelain making, leather goods, fashion, secretary, and trade work.*

In 1975, one of the key occupational medicine textbooks was teaching that girls were genetically more interested in secretarial work. Just because they are girls.

It is possibly in this exact same mindset that Josiane was recruited. She was a woman, hence she was skilled at administrative work. So why would anyone care about training and credentials? None actually did (neither the recruiter, nor Josiane herself), and this is probably one of the root causes of Josiane's subsequent work-related mental health issue.

The Difference Between What We Know, What We Say, and What We Do at Work

How can I understand better what happened to Josiane? Let's talk about the methods here, aiming at going beyond general statements ("*he is evil*," "*I am harassed*"). I used some interview methods, inspired by the work of Philippe Davezies.

Francophone people would distinguish *le discours* from *la parole*. The problem is that in English, both words could be translated by the word *speech*. Hence, I'll use the French words to explain the difference between both.

---

24 Translated from the French by the author: « *En ce qui concerne les aires principales d'intérêt, les psychologues observent que les garçons préfèrent les romans d'action et d'aventure alors que les filles aiment les histoires sentimentales et domestiques, les documentaires sociaux. On note chez elles « l'attrait pour la toilette, les diseurs de bonne aventure, le besoin de regarder à travers les vitrines et de manipuler les objets d'achat ». Ce n'est pas une critique: les filles jouent plus volontiers à la marchande qu'à l'officier aviateur; sans doute vaut-il mieux aimer à manier les objets que d'avoir envie de les détruire. Certains intérêts électifs sont constatés chez elles: ceux concernant les enfants et la famille, ceux relatifs aux travaux ménagers, certains travaux techniques, bijouterie, horlogerie, travail de la porcelaine, maroquinerie, parfumerie, les travaux de la mode, le secrétariat et le commerce* » (p. 866).

The *discours* corresponds to general statements. It is heavily influenced by a lot of external factors: what people hear about what they do, what general statements are already circulating. ... It is quite visible in politics, when individuals would simply replicate what they have heard in the media. There is not necessarily a lot of thought given to what people say. There is not a lot of time spent thinking about the specific meaning of what they say. It usually does not resist contradiction and argumentation much. When discussing with workers about their work, there is this phenomenon of using the *discours* at first. It is of limited interest for the work analyst or the occupational medicine specialist. It is necessary to have workers share their *parole* on work. The *parole* is precisely the opposite of the *discours*: genuine, authentic, real and personal statements. Such parole is much more detailed.

Then, when you talk with a worker about their work, there is, at first, a distinction between what they know about their work and what they are going to tell you about their work. There are several reasons to explain that. It is certainly not because workers are dumb. Talking about work is fundamentally difficult. As Davezies wrote:[25]

> *The difficulty to put work into words does not result from an intellectual deficiency.*

First, describing what we do at work is difficult, because what we do is embedded in our memory. This memory is implicit and not easily accessible to our awareness. We can tie our shoelaces, but it is extremely difficult to explain, step by step, how to do it. Work is made up of many such operations that are difficult to explain, like tying shoelaces. We know how to do it, but we do not know how to best explain it. These kinds of operations, awfully difficult to put into step-by-step procedures, are called *incorporated know-hows*.[26]

Then, in a relationship between a worker and a physician, or anyone else in a power differential relationship, what a worker can tell is necessarily skewed. We are not always proud of what we do at work. There are things that we may be willing to report more than others. This is certainly not a criticism nor being judgmental about workers: I would do exactly the same under similar circumstances.

Beyond this first distinction (what we know vs. what we say), there is a difference between what workers actually do at work and what they say about work. This second level of distinction is close to the difference between the *task* and the *realized activity*. The task is what the worker is asked to do, and the realized activity, as we have seen previously, is what the worker actually does.

---

25 Davezies P. Enjeux, difficultés et modalités de l'expression sur le travail: point de vue de la clinique médicale du travail. *PISTES* 2012: 14–22. Available from https://journals.openedition.org/pistes/2566 (accessed on July 15, 2024).

26 *Savoir-faire incorporé* in French.

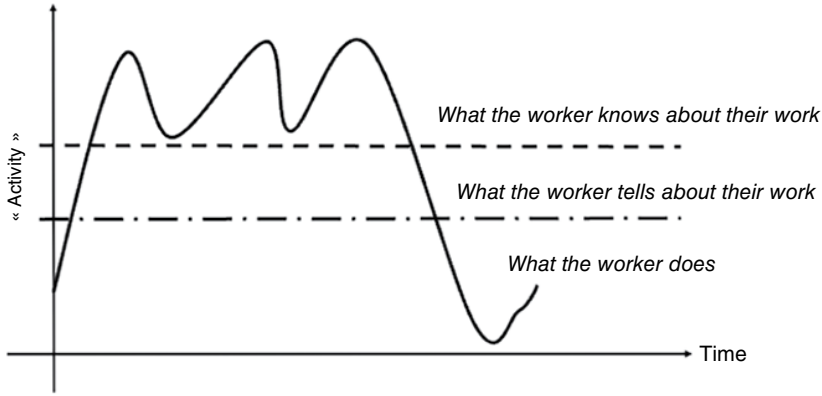

Figure 6 *Discours* and *parole* on work

The thing is that what we do at work is incredibly uneven, no matter what. There are fluctuations, changes, unpredictability... even at the most predictable workstation. In contrast, workers talk about their work spontaneously, averaging what happens (this is part of the *discours*). Figure 6 gives a visual representation of these three elements: what the worker knows about their work, what they say about their work, and what they actually do.

It's time to be a bit more practical and illustrate this theory. Let's illustrate these differences, starting with the difference between what the worker knows about their work and what they tell about their work.

Fatima is a 35-year-old worker. I met with her because she was pregnant and eligible for anticipated paid maternity leave. This was a benefit offered to workers in the occupational health service of Angers, where I was working with Chantal. Fatima was eligible for that benefit. It was not up to the physician (me in this situation) to decide whether she would get the anticipated maternity leave. The only requirement was that the occupational medicine specialist needed to confirm that there was an ongoing pregnancy, which was quite easy and obvious in this woman reaching her fifth month of pregnancy. However, this is not how Fatima, and likely most pregnant persons, would understand this encounter. They would assume that the physician decides on their right to get the anticipated leave. So Fatima thought she needed to bring some evidence to convince me that she deserved the leave. Which is why, when I asked her about her job, the very first thing she told me was "*it is a lot of trampling*."[27] She told me this before anything else about her job. I quickly realized she was a librarian. Out of context, describing

27 This was an encounter in French. Fatima (the name has been changed) told me, in French: « *c'est beaucoup de piétinement* ».

the work of a librarian by saying that it's a lot of trampling is somewhat bizarre. It was probably more ordering books from suppliers, selecting them, providing advice to the public, managing the loans at the desk, bringing back the books to their shelves.... None of that came out at that moment: just the trampling. It made perfect sense if we acknowledge that Fatima was concerned that I might not help her get her anticipated leave, hence describing her job by outlining the risks for her pregnancy. In another context, she would likely have described her job in another fashion. No matter what, she ended up obtaining the paperwork she needed from me, and obtained her anticipated maternity leave as she was entitled to. This story is an illustration that there is a difference between what workers know about their work and what they tell about their work. Fatima knows it's not just nor even mostly trampling. But her description was heavily influenced by the important stake of this encounter for her pregnancy.

Eveyone must keep in mind that it's not enough to ask a question to obtain an answer. The context in which you ask your question weighs a lot on the ability of the worker to provide you with an answer, and on the nature of the answer. This is particularly important to remember, especially when workers undergo stressful independent medical examinations (IMEs).

Similarly, as a leader, it is not enough to tell your team that "*your door is always open*" if you do not actively work to create the conducive climate so workers feel safe to talk. Most terrible leaders would say that their door is always open: such a statement does not magically transform you into a good one. No one cares that your door is open if workers do not feel safe to talk to you.

A last example concerns surveys: you can ask workers to fill out surveys at work, but it's not enough to provide surveys, collect questions, and draw meaningful conclusions if there is no serious thought given to the context in which workers have to fill out the form. Is it at home, or is there a chance that their boss will look at them filling out the form? Is it one survey every two years, or is it the third one they got just this week? Are you suddenly interested in workers' feedback after conducting a two-year downsizing and cutbacks where their feedback was never collected for anything? What is the level of tokenization of the data collection (i.e. is it mostly to report on paper figures showing that you have consulted so many workers rather than coming up with plans for change)? How likely are the workers to believe that their feedback will really help positively transform the organization? How much room for change do you really have? Have you decided on everything already? We will be back to workplace surveys later. There is so much to say about them.

Now, let's illustrate the difference between what the worker tells us about their work and what they really do in practice.

What workers say about their work is sometimes quite heavily influenced by the job description or corporate verbiage, to an extent that it may make no sense at all.

For instance, I remember a worker who told me something like "*I help the department with producing guidelines on the approved key actions at the company's top management level*." (this is still the *discours*).

There are also a lot of talking points used by workers to describe their job. These talking points are like fashion: they live for some time, then die, and are replaced by others. I am always very suspicious when the following such words are used to explain to me what the work entails: *innovation* (or innovative, or any spin-off of that word); *creative*.... These are catchy words, but they do not provide anything meaningful that helps me to understand what workers do in practice.

Shifting from General Averages to Precise Events with a Precise Time and Location

Then there is the problem of how workers are *averaging* their work activity to share it.[28] As previously mentioned, work is always unpredictable. It changes from day to day, even in the most repetitive job. Machines can be broken. Coworkers can be sick. Meetings can be added to your workday. Hence, workers spontaneously convert this variability into an average, so they can explain what their work is more easily.

By doing so, workers create a fictional representation of their work, supposedly being the same every day, all year long. A good way to identify when workers are averaging is when they describe their activity using the present tense. "*I arrive at the office at 8.00, I log on to my computer, I look at my emails*...." However, if you were to restrict your work analysis to this average, you are likely to miss important details. Hence, you need to go back to the real activity, with the worker, in terms of localized time and space. You need to shift from the *discours* to the *parole*.

How do I do that?

By using calendars.

Big cardboard calendars which fill up the entire desk are best. These cardboard calendars need to cover any documents brought by the worker. It may seem counter-intuitive, but the documents (e.g. notes, diaries) brought by workers are usually taking us very far from the real activity. These are drawbacks rather than advantages. They mostly crystallize the averages. Covering these (if the documents are on the table) helps the worker to move from their representation so we can work together, because I am asking patients in my clinics to actively work, rather

28 Durand-Moreau Q and Dewitte JD. Apports d'une consultation de pathologie professionnelle dans la prise en charge des risques « dits » psychosociaux. *Références en Santé au Travail* 2016; 148: 73–80.

than passively repeating their own speech. Hence, such clinics are very disturbing, and usually not very comfortable for patients.

Then, I ask the worker: "*when was your last day of work?*" They have to point out the date on the calendar. Having calendars from previous years on the side is helpful if the worker has not worked in a while (or if you have your clinic on January 2). Once the day is secured, you ask "*tell me what you did on that specific day*." This is the moment when a lot of workers will resist. They would do so for many reasons: they are not ready to speak of that one day, it looks far from their own and immediate concerns, it looks stupid to them, they prefer you not to ask questions but just listen what they say.

This must be seen as part of the physician's clinical work. When workers go back on average, they need to be refocused: if they were to describe one day in the past, this must not be done using the present tense. If they use the present tense, this is suggestive that they are not describing this specific day, but they are still averaging. It may take a bit of time for them to do that. Once workers understand that it is that one day we will be talking about, and not another one, it is quite common that they would say "*doctor, that's a bad example, that day was an unusual day of work*." There was either a quarterly meeting, a broken machine, they had to leave early because of a sick child, they were starting a new production, they were having a training session, the director was not there, their coworker called in sick.... Work is indeed always unusual. When workers say that, you are certain you are successful in having them talking about their real activity instead of the fictional average: they have shifted from the *discours* to the *parole*.

Shifting from the average to the real work assessment, localized in time and space, has pros and cons. The cons are that you can only look at a tiny portion of it. You may spend an hour discussing a single day at work. You have to pick wisely that one day you are going to discuss. In certain situations, picking the very last day of work is fine. However, in situations where you discuss work-related mental health concerns, and allegations of harassment, it is helpful to ask the worker to talk about the day when it got worse. The resistance from the worker in such a case might be expressed like this: "*I get insults every single day,*" "*it is so common, I cannot tell a specific day*".... It is important to persist in finding one specific day: "*tell me what was the worst,*" "*if my boss was to call me a b**** I would remember it,*" "*tell me the last time you have been insulted at work....*"

The pros are that you will have a (likely) new and unexplored way to look at the worker's activity. Let's review an illustration of that.

Rachel worked for the City of Angers, where I was providing occupational medicine service as a resident. She was 36 years old and worked as an accountant. While averaging, the job description is something like this: "*I do computer work, filling Excel spreadsheets with indicators provided by the waste management department, to make sure they are not going over budget*." I was not so much

interested in this average, so I tried to bring her to her real activity during our discussion. So, I asked her to describe her last day at work. "*Oh no, that was a very special day, that is not a good representation of what I usually do!*" Of course it is not: that's exactly what I was looking for. That day, she was not at her office, and she was not entering numbers on an Excel spreadsheet. She was onsite at the waste management center, like she does every three months. She was triaging a sample of about 10 recycling bags, to obtain an estimate of the quality of the recycling completed by the inhabitants. If the recycling is not done correctly (i.e. if there are some non-recyclable items in the recycling bags) it generates a higher cost at the recycling facility. Her triage provided an indicator that helped her make sure that the budget stays under control.

This example always scares me about our capacity, as occupational medicine specialists, to grasp and anticipate all the important occupational hazards in a workplace. No doubt we miss a lot. If I were to see Rachel as just another office worker, I am sure I would not be concerned at all with the hazards related to triaging garbage bags. However, after I knew that this was something she did, four times a year, I offered her a hepatitis B vaccination, to protect her in case she had exposure to a sharp object in one of the bags. In the eventuality I had stayed on the average job description, I would have missed this occupational hazard.

Wrapping Up with Josiane's Story: From a "Toxic" Boss to Bad Practices and Lack of Support

Let's finally wrap up the story of Josiane, now that I have explained some of the methods I used in my clinic with her. As she was reporting arguments with her employer, the new physician, I asked her to tell me first when the biggest argument she had with him was. Once we found the date when it happened, I asked her to describe to me how it happened.

The biggest argument Josiane had with her employer was related to giving patients' charts back to them. In the context of the transition between the previous family doctor and the new one, a number of patients decided to change their doctor and get their files back, ready for their new provider. It does not raise a lot of issues when the patient comes and gets their own file. However, there is the problem of patients who are in long-term care facilities, absolutely unable to come in person to the office and get their own chart. Some of them have neurocognitive disorders, such as Alzheimer's disease. In this case, it is a third party who comes and gets the chart. The problem is that Josiane did not check the identity of the third party. She did not make sure that it really was a patient's relative, and the designated person. She did not check the legal requirements to do that. In France,

patient privacy with regard to health information is strictly regulated. Ultimately, the physician is responsible for any breach of confidentiality. It was when he realized that Josiane was giving back charts with limited safeguards that the discussion escalated. There was this argument that was extremely stressful to Josiane, and seen by her as harassment or bullying.

When we see Josiane's situation this way, we have introduced the top extremity of our triangle (Figure 5). We have brought back the work component in the analysis. This provides a better understanding of the situation, and (at least in theory) a path to move forward that is not limited to submitting a complaint for bullying, or resigning from the position.

In this situation, no one really cared about Josiane's training. Neither the employer, nor Josiane herself. I am not looking for who is responsible in this situation. When it comes to workers' compensation, it does not matter, as in France (like in Canada) we are in a no-fault compensation system. And if we are in common law, it is up to a judge to decide, not a physician. As we previously said, Josiane was not recruited because of her skills and credentials. Not only did she not receive any initial training, but no professional development either on these topics. The job of medical secretary was seen as restricted to basic tasks that could be completed with no training. It is difficult to be more wrong. It is possible that Josiane, if she were to have clearly understood the legal consequences of a breach of confidentiality, and how to properly give medical records to third parties, would have avoided this argument, as she would not have committed any errors in this regard.

Now that you know the story of Josiane, you can understand why I insist on the difference between harassment (as defined in the law) and the feeling of being harassed (which is much more common). Understanding the roots of work-related mental health issues is difficult. I have not always been successful in doing so with my patients. I share the stories where it worked, and not the others. Workers, themselves in a situation of job stress, are not at their best to understand what happened to them. However, it is impossible to stay in a distressing situation without finding an explanation for it. One explanation is enough, and not necessarily the best one. Hence, using pre-formatted talking points gathered here and there (harassment, toxic personalities, interpersonal issues. . .) may mean the end of any effort to pursue the analysis of the situation. The ready-made explanation works well enough to be acceptable. The worst for these patients is when the healthcare providers they meet do not make any effort to analyze their sufferings further and enact their report. This is then the start of a "he says/she says" story, which stays at an interpersonal level, and where limited support can be offered. Again, bringing back the work into the story is a good way to escape the risk of staying at a purely interpersonal level, and provide some facts and verifiable elements that can help in any

investigation (e.g. those conducted by workers' compensation boards, or by the justice in the most severe cases). Worse even, according to Davezies, is if the occupational medicine specialists limit their action in repeating the patient's speech. This precisely *buries* patients in the difficulties they are trying to get out of.[29]

On the one hand, we can verify whether Josiane gave back any charts (*Which charts? To whom were they given? Was this completed in compliance with the regulations?*), whether the employer took actions to provide professional development and make sure that she was able to do her job properly (e.g. *if she attended a training session, she would have a certificate; if she was offered some training options, the employer could explain what these were…*). On the other hand, no one can check whether this physician really had "*the devil in his eyes*."

An Argument Between a Nurse and a Surgeon

Let us see what could happen when there is no such work analysis. To do so, I will refer to a beautiful documentary by Jérôme Le Maire,[30] recognized as the best 2018 documentary during the prestigious Belgian *Magritte* ceremony. Jérôme Le Maire first decided to spend a full year, with no filming, meeting healthcare workers in the operating wards of Hôpital Saint Louis, located in Paris. In doing so, he got the trust of these workers and started filming, alone, the next year. This process, in the long term, brings a way more interesting perspective to work interactions, compared to documentaries where no such relationships are built beforehand with the workers. Clearly, the workers have forgotten about him and his camera. Thus, the interactions he caught on camera are genuine, and there are very few opportunities for work analysts to witness these.

During the documentary, there is a heated interaction between a surgeon and a nurse anesthetist. The surgeon is a white man in his sixties. The nurse is a black woman in her thirties. She is smaller than him. They have just finished a surgical intervention. They are cleaning the tables. The patient wakes up after the surgery. The surgeon orders the nurse to come close to the patient and

29 Davezies P. Enjeux, difficultés et modalités de l'expression sur le travail: point de vue de la clinique médicale du travail. *PISTES* 2012: 14–22. Available from https://journals.openedition.org/pistes/2566 (accessed on July 15, 2024).

30 Dans le ventre de l'hôpital, 2016. Filmmaker Jérôme Le Maire. Available on demand at https://boutique.arte.tv/detail/dans_ventre_hopital (accessed on July 15, 2024). The excerpt I am referring to starts approximately at the 27th minute.

administer oxygen. Immediately, the surgeon and the nurse start arguing together. On the one hand, the surgeon complains that the nurse was not close by during the entire surgery. On the other hand, the nurse tries to explain why she was not able to do so: she was assigned two rooms. Unfortunately, she struggles to explain herself and be listened to by the surgeon. The discussion shifts to an interpersonal argument, where she ends up asking him to stop talking to her "like a dog." Right after the argument, she chats with her supervisor: the nurse is very emotional and asks the supervisor never to be reassigned with this surgeon in the future.

This is an extremely interesting, albeit probably quite common, workplace argument. There can be many levels of analysis, where we can appraise the many expressions of power differential between the nurse and the surgeon. The surgeon is older and taller, he is a white man. The nurse is younger and smaller, she is a black woman. Let us look at it, looking at the work problem.

Here, the issue is that they are totally unable to unfold the work problem that has happened. The surgeon is irritated that the nurse was not in the room as he thought she should have been. He has some expectations of her work that do not seem to match the requirements. She tries to chat with him, but there is no real space for discussion. He literally starts saying he has no time for that. She is likely extremely distressed by the interaction, and is unable to bring up the key issue, which she brings up later with her supervisor (who has a supportive attitude) when the surgeon is no longer there: she was told it was a local anesthesia (and it ended up being a general anesthesia), she was not required to be in that room, she was assigned two rooms, she repeatedly said she was not ready, but she says she was not listened to. As the discussion with the surgeon never reached that point where the work issues were mentioned (the third tip of the triangle in Figure 5), the distressing context, the power differentials, bring the discussion back to an interpersonal analysis ("*he talks to me like a dog*"), and a problem of disrespect and harassment.

The work analysis also helps us look at this interaction from a more neutral perspective. Both actually encounter a different set of professional difficulties: the surgeon did not get the support he was expecting to perform the surgery, the nurse was put in a situation where she did not have the means to help adequately. Should the organizational issues be fixed (let us say with sufficient staffing for instance and no nurse being assigned two rooms), it is likely that this argument would not have occurred.

However, if she is reassigned to another surgeon (as she is asking for), with no further improvement of all the (many) organizational issues mentioned in this short excerpt (assigning a nurse for several rooms, switching local anesthesia to general), there is not much improvement to be expected for this

nurse. Worse still, if the surgeon changes, and the problem stays, one can start thinking that the problem was the nurse herself from the very beginning. Such accusations may even arise more quickly than a proper identification of systemic workplace issues.

The Difficulty of Making Sense of Population Data on Harassment

At this stage, I hope you are envisioning harassment and bullying in a more complex fashion than they look. As we have seen, the definitions vary from one place to another. Notwithstanding the situations where there really is a bully, a perverse narcissistic person bullying a worker, there are also circumstances where the worker's feeling of being harassed may be part of a more complex tridimensional interaction between a worker, a coworker or a supervisor, and their work object, where the work analysis has been amputated, as we have illustrated with the story of Josiane (the secretary) or as illustrated in the documentary, with the story of the surgeon and the nurse anesthetist.

All of this must give us a lot of caution when analyzing population data on workplace harassment. There is a database in France (called RNV3P),[31] of all encounters conducted in the 30 specialized occupational disease centers, located in university hospitals. Information about the patient, their work, and their conditions is encoded into a large national database. The link between workplace exposures and diseases is assessed by the occupational medicine specialist on a scale from 0 (no link between exposures and disease) and 3 (strong link). Gérard Lasfargues and I have looked at the data from the start of the database (2001) to 2018.[32] The main work-related mental health diseases recorded were major depressive disorders and anxiety. These happened mostly in workers in public administration and retail. The organizational factors recorded for these cases were mostly organizational changes and managerial practices. However, "*feeling of harassment*" was also recorded as one of the top reasons involved in these cases. The problem with how these workplace factors are recorded in the database depends on the level of analysis of the physician who is meeting with the

31 RNV3P stands for Réseau National de Vigilance et de Prévention des Pathologies Professionnelles (National Network for Vigilance and Prevention of Occupational Diseases).

32 Durand-Moreau Q and Lasfargues G. Introduction. In: Durand-Moreau Q and Lasfargues G (Eds). Entre management et santé au travail, un dialogue impossible? 2022. Toulouse. Editions Eres.

patient. Some will stop at the interpersonal level (and code "feeling of harassment") where some other will look at the work conditions and code "organizational changes." Hence, the data provided by the RNV3P database does not provide sufficiently reliable information on workplace exposures, as they are very dependent on the physician who is inputting the data. RNV3P subsequently launched a group to improve coding practices, trying to address these issues. This is another illustration of the paradox of harassment in the workplace: a situation that looks very simple as long as we stay at the interpersonal level, with a bully and a victim, but which can get very complex as soon as we bring the workplace into the analysis.

7

Addictive Disorders and Work-Related Doping

Psychotropic substances are great. They are usually quite easily available and provide nice effects. They may help people relax, be more imaginative, or they may relieve them from their pain. Many workers use such substances as a way to deal with workplace problems, and job stress in particular. That's a good solution... up until we run into a diversity of problems. Using substances may be associated with legal issues. Using substances may lead to addictive disorders. Using substances may be associated with additional health conditions.

In this chapter, I would like to provide you with an overview of the issues related to substance use, addictive behaviors (whether with a substance or behavioral addictions) in the workplace, as well as the specific issue of work-related doping.

Substance Use and Addictive Behaviors

Addiction medicine is a fairly recently individualized academic field. A subspecialty residency training was created in France in 2002. Michel Reynaud (1950–2020), who was one of my professors of addiction medicine, pushed a lot to create this training.[1] Dominique Penneau-Fontbonne, emerita professor of occupational medicine and addiction medicine at Angers University where I completed my residency, has advocated for this subspecialty training to be available to residents in occupational medicine.[2] Hence, a number of physicians in France have dual qualifications in occupational medicine and addiction medicine

1 Fortané N. La (les) trajectoire(s) du changement. La naissance de l'addictologie. *Actes de la recherche en sciences sociales* 2014; 205(5): 42–57.

2 Entretien de la SELF avec Dominique Penneau. mené en 2019 par Annie Drouin et Jean-Claude Sperandio. Available from https://ergonomie; https://ergonomie-self.org/wp-content/uploads/2022/02/penneau-dominique.pdf (accessed on July 22, 2024).

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition. Quentin Durand-Moreau.

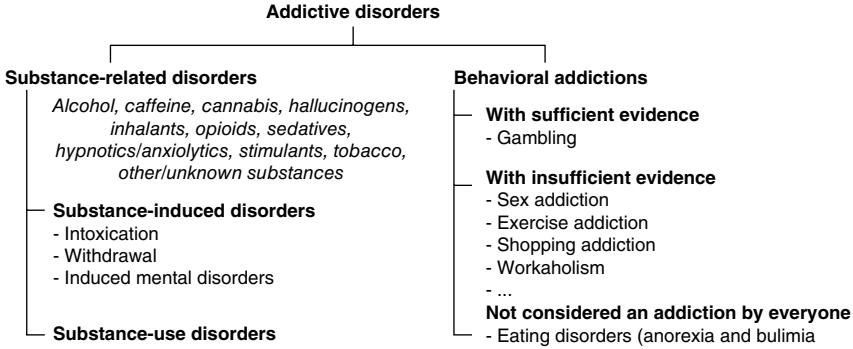

Figure 7 Overview of addictive disorders

(as I do). The Canadian residency training in addiction medicine (Area of Focus Competence, AFC) has been made official by the Royal College of Physicians and Surgeons of Canada more recently in 2019.[3]

Let's first clarify what we are talking about. There is a bit of confusion between substance usage and addictive behaviors. Figure 7 provides an overview of the different concepts in addiction medicine, based on the current version of the *Diagnostic and statistical manual of mental disorders* (DSM) (as of 2025).

First of all, the entirety of addiction medicine is not to be restricted to substance-related disorders. Some addictive conditions are related to behaviors. Although still an area for further development and research, there is enough evidence to classify gambling as a behavioral addiction. However, workaholism, the phenomenon of addiction to work itself, is still debated as an addictive disorder, and there is not enough evidence to classify it as part of the DSM-5-TR.[4] We will discuss that a bit later in this chapter.

Eating disorders are considered by some specialists as part of behavioral addictions, but they are not classified as such in the DSM-5-TR. There are still some gray areas in addiction medicine.

Nevertheless, it is not because someone uses a substance that they are addicted to that substance. A single use of the substance can lead to an intoxication (under substance-induced disorders). Such intoxication (with alcohol, cannabis, or

3 Royal College of Physicians and Surgeons of Canada. *Competency training requirements for the area of focused competence in addiction medicine*. Available from https://www.royalcollege.ca/en/standards-and-accreditation/information-by-discipline?specialty=&subspecialty=&special-program=&afc-diploma=royal-college%3Aibd%2Fafc-diploma%2Faddiction-medicine (accessed on July 15, 2024).

4 APA. *Diagnostic and statistical manual of mental disorders*. American Psychiatric Publishing. Available from https://www.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425787.x16_Substance_Related_Disorders (accessed on July 22, 2024).

anxiolytics for instance) may lead to safety concerns in workplaces. It is worth mentioning that this has nothing to do with the legal or illicit nature of the substance. Pharmacology cares little whether laws and tribunals have decided to classify a substance as legal or not to act on cell receptors. People can have intoxications with legal products (e.g. alcohol, some medications) or illicit products (e.g. cocaine, heroin). The single use of a substance does not necessarily need to be medicalized.

It is when people lose control of their usage and reach the state of a substance-use disorder that they need some support. Substance-use disorders are defined as a "*cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues using the substance despite significant substance-related problems*."[5] Pierre Fouquet (1913–1998), a physician and pioneer in alcohol medicine, defined alcoholism as "*the loss of liberty to abstain from drinking*." The key idea is the same: losing control. Overall, the DSM criteria for substance-use disorders are the following:

1) *Taking the substance in larger amounts or for longer than you meant to.*
2) *Wanting to cut down or stop using the substance but not managing to.*
3) *Spending a lot of time getting, using, or recovering from use of the substance.*
4) *Cravings and urges to use the substance.*
5) *Not managing to do what you should at work, home or school, because of substance use.*
6) *Continuing to use, even when it causes problems in relationships.*
7) *Giving up important social, occupational or recreational activities because of substance use.*
8) *Using substances again and again, even when it puts you in danger.*
9) *Continuing to use, even when you know you have a physical or psychological problem that could have been caused or made worse by the substance.*
10) *Needing more of the substance to get the effect you want (tolerance).*
11) *Development of withdrawal symptoms, which can be relieved by taking more of the substance.*

Can Job Stress Cause Substance Use?

The association between substance use and job stress has been looked at in many publications. I will be far from exhaustive here, as we will have only a partial overview of some of them.

---

5 APA. *Diagnostic and statistical manual of mental disorders*. American Psychiatric Publishing. Available from https://www.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425787.x16_Substance_Related_Disorders (accessed on July 22, 2024).

Some studies have looked at the association between cigarette use and job stress. This question was particularly important as we considered the cardiovascular effect of job stress. It was hypothesized that the effect of job stress on cardiovascular morbidity could be mediated by increased tobacco use: in other words, you are stressed out, then you smoke more, then you develop more cardiovascular problems. Kouvonen and colleagues conducted an observational study of 46,190 public-sector employees in Finland.[6] The authors found that work stress, as appraised by the Karasek and Siegrist models (JCQ and ERI), was associated with smoking. Higher job stress was associated with greater smoking intensity. Son and colleagues surveyed 4639 Korean workers and similarly found an association between job stress, smoking status, and nicotine dependence.[7] However, these findings are not entirely consistent in the available research. Other publications have produced contradictory results. Nonetheless, a large meta-analysis, pooling data from 15 different studies and more than 160,000 workers, has shown that smokers had 11% higher odds than non-smokers of reporting work-related stress, and that these stressed workers were smoking more cigarettes than non-job-stressed workers.[8] This said, this study could not conclude on the direction of the association: is it the job stress that makes workers smoke, or is it the smoking (as part of an unhealthy lifestyle) that contributes to job stress?

Opioid use at work is a research topic that has attracted a lot of interest. Several research papers counted the number of users, worried about the prevalence of illicit use in certain industries (usually finding that the risk is higher in safety-sensitive areas), recommending treatment, but more rarely looking at workplace risk factors favoring such use. Indeed, there are not many papers available on the links between opioid use and job stress. Bong-Kyoo Choi analyzed data from the National Survey of Midlife Development in the United States between 2004 and 2006.[9] He found that low skill discretion, high psychological demands, and job strain were associated with opioid-use disorder. Job strain almost doubled the

---

6 Kouvonen A, Kivimäki M, Virtanen M et al. Work stress, smoking status, and smoking intensity: an observational study of 46,190 employees. *Journal of Epidemiology and Community Health* 2005; 59(1): 63–69. doi: 10.1136/jech.2004.019752. PMID: 15598729; PMCID: PMC1763376.

7 Son SR, Choe BM, Kim SH et al. A study on the relationship between job stress and nicotine dependence in Korean workers. *Annals of Occupational and Environmental Medicine* 2016; 10(28): 27. doi: 10.1186/s40557-016-0113-4. PMID: 27293770; PMCID: PMC4902943.

8 Heikkilä K, Nyberg ST, Fransson EI et al. Job strain and tobacco smoking: an individual-participant data meta-analysis of 166,130 adults in 15 European studies. *PLoS One* 2012; 7(7): e35463. doi: 10.1371/journal.pone.0035463. Epub July 6, 2012. PMID: 22792154; PMCID: PMC3391192.

9 Choi BK. Opioid use disorder, job strain and high physical job demands in US workers. *International Archives of Occupational and Environmental Health* 2020; 93: 577–588.

prevalence of opioid use disorder. Rachel Cooper and Emily Bixler wrote an interesting paper in 2021.[10] They listed several workplace risk factors for opioid use. Many workers misusing opioids do so to try to relieve physical pain. Basically, their misuse is related to pressure to stay in the workforce, no matter the cost. They also noted that some work-related stressors can facilitate opioid use and misuse, such as job insecurity, and excess or insufficient work. Intersectionality is at play in this matter: BIPOC (black, indigenous and people of color) are both at higher risk of occupational death than white workers and also usually more impacted by the opioid crisis.

Some job characteristics can increase the risk of alcohol use, such as shown by a 2021 systematic review, which was part of a large international project in occupational health. Back in 2018, the ILO and the WHO decided to partner to assess the effects of exposure to select occupational risk factors and specific conditions. It was a large multi-group international project. I was personally involved in the group working on the links between long working hours and depression (for which we did not find a clear causal relationship).[11] Another group looked at the links between long working hours and alcohol use.[12] Long working hours were defined as more than 40 hours per week. Although the overall body of evidence was considered by the authors of low certainty, it was found, based on the review of 14 cohort studies, including more than 100,000 workers, that exposure to long working hours was associated with increased alcohol consumption. They did not find any relevant studies about alcohol-use disorder that they could include in this analysis.

"*Alcohol is Responsible for 20% of Workplace Injuries*": Really?

The effect of substance use is often looked at in terms of workplace injuries. There is a discrepancy between the alleged catastrophic effect of substance use (whether it is alcohol or cannabis) and the measurable magnitude of such effect, as we will see with two examples regarding cannabis and alcohol.

---

10 Cooper R and Bixler E. Comprehensive workplace policies and practices regarding employee opioid use. *New Solutions: A Journal of Environmental and Occupational Health Policy* 2021; 31(3): 219–228.

11 Rugulies R, Sørensen K, Di Tecco C et al. The effect of exposure to long working hours on depression: a systematic review and meta-analysis from the WHO/ILO joint estimates of the work-related burden of disease and injury. *Environment International* 2021; 155: 106629. doi: 10.1016/j.envint.2021.106629. Epub June 15, 2021. PMID: 34144478.

12 Pachito DV, Pega F, Bakusic J et al. The effect of exposure to long working hours on alcohol consumption, risky drinking and alcohol use disorder: a systematic review and meta-analysis from the WHO/ILO joint estimates of the work-related burden of disease and injury. *Environment International* 2021; 146: 106205. doi: 10.1016/j.envint.2020.106205. Epub November 12, 2020. PMID: 33189992; PMCID: PMC7786792.

The analysis of data from the Canadian Community Health Study, between 2013 and 2016, provided interesting results for cannabis and workplace injuries.[13] The authors identified a need for specific research on cannabis[14] use and workplace injuries, as most existing research was derived from road traffic injuries. It is quite common to extrapolate to the workplace the dangerousness of substances as assessed by the occurrence of car accidents. However, this raises multiple concerns. Car injuries and workplace injuries are quite different. For instance, car injuries also include a number of suicide attempts, completed under the influence of a combination of psychotropic substances to facilitate the attempt, and these cannot be compared to workplace injuries. The authors looked at workers who reported a work-related injury, and whether they had used cannabis more than once in the previous year. Surprisingly, not only did the authors not find evidence that such cannabis use was associated with an increase of workplace injuries, but in fact quite the opposite. The risk was lower in workers reporting cannabis use. The odds ratio was 0.81, which means that the risk of workplace injury was decreased by 19% in the group of cannabis users; the 95% confidence interval was 0.66–0.99, which means that this result is statistically significant. The authors interpreted these results with the utmost caution, acknowledging the limitations of their analysis. The cross-sectional nature of their study does not allow us to establish causality. However, they contrasted their results with existing data, showing no clear increase of occupational injuries in cannabis users. Obviously, this paragraph is not intended to constitute an encouragement of substance use.

This said, these surprising results are not very surprising.

Back in 2005, Philippe Davezies and Barbara Charbotel, a full professor of occupational medicine at Lyon University, worked on work-related road traffic injuries. They found that there was a large disconnect between lab studies (showing without any doubt that cannabis use reduces performance) and populational studies (mostly failing to show that cannabis use is associated with increased injuries).[15] One problem while looking at road traffic injuries, and the results of urinary tetrahydrocannabinol (THC) levels, is that such levels may

13 Zhang JC, Carnide N, Holness L, and Cram P. Cannabis use and work-related injuries: a cross-sectional analysis. *Occupational Medicine (London)* 2020; 70(8): 570–577. doi: 10.1093/occmed/kqaa175. PMID: 33108459; PMCID: PMC7732753.

14 In this book, the word cannabis is used throughout. The word marijuana is considered discriminatory towards Latinx people and Spanish-speaking communities. We should stop using it.

15 Davezies P, Charbotel B. *Pré enquête sur les accidents de la route dans le cadre du travail. Préparation d'une enquête épidémiologique*. Rapport de recherche. IFSTTAR - Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux. 2005. Available from https://hal.science/hal-01574830v1/document (accessed on August 12, 2024).

reflect an old use, which may be unrelated to the accident. The authors noted that in contrast, positive ethanol levels in the blood are strongly associated with road traffic injuries.

For many years researchers have tried to demonstrate that alcohol use increases the risk of workplace injuries, without any clear evidence so far. Political scientist Renaud Crespin provided a critical perspective on the use of drug screening in workplaces.[16] In particular, he pointed out that some authors justify alcohol screening, based on the statement that "*15 to 20% of occupational fatalities are related to alcohol, psychotropic substances, or narcotics,*" without providing any reference to back up this statement. This was something that was repeated to me during my residency training, and I realized, similarly, that no references were provided.

However, when I took the time to dig into it further, I found some interesting publications. Some papers actually provide a reference to a very old study that has possibly inspired these numbers. In 1956 and 1957, Sully Ledermann and Bernard Metz[17] conducted a case–control study in a metallurgy company. They included 231 workers who had any type of workplace injury and paired them with 432 controls who did not have any workplace injury during that period. Several footnotes provide useful information that considerably affects the validity of the research. The authors indicated that "*some accidents of exceptional severity*" were not included in the analysis, because workers had to be immediately transferred to hospital. In another footnote, they clarified that the controls were not even informed they were included in the research: they took samples from workers coming to the occupational health service between 10 am and 12 pm. This would obviously be considered an unethical practice nowadays, and any research ethics board would have flagged the protocol for this very reason. No specifics are provided as to how the controls were chosen. It is clear that this paper would never have passed the peer-review process researchers experience nowadays. For whatever reason, they excluded 24 injured and 42 non-injured "North African" workers from the analysis: no explanation for the exclusion of almost 10% of the research population was provided.

The statistics conducted by the authors are awkward. Of course, back in the 1950s, they were running regression analyses without the comfort of a statistical

16 Crespin R. Réduire des risques en ignorant le travail: enjeux d'expertise autour du dépistage des drogues. In: Crespin R, Lhuilier D, and Lutz G (Eds). (Dir.), Se doper pour travailler. 2017. Toulouse. Editions Eres.

17 Ledermann S and Metz B. Les accidents du travail et l'alcool. *Population* 1960; 15(2): 301–316. Available from https://www.persee.fr/doc/pop_0032-4663_1960_num_15_2_6603 (accessed on August 2, 2024).

software. However, they presented their results without commenting on the statistical validity: they found an increase of 10% or 11% (which is already not quite the "15 to 20%"), but they never say whether this result is based on chance or a real difference. For the sake of this paragraph, I re-ran some of the statistics based on their numbers and found that the difference in alcohol levels (more or less than 0.5 g/L) between both groups (injured workers vs. non-injured workers) is not statistically significant. In other terms, the figures used by the authors cannot allow them to conclude that alcohol influences the occurrence of accidents.[18] It is anachronistic to assess research conducted in the 1950s with the eyes of an academic working some 70 years afterwards. But it would be even more anachronistic to use this piece as a justification for the "15 to 20%" of workplace injuries related to alcohol use.

What is more interesting in this old paper is that some of the authors' analyses indicate that "*severe alcoholics*" have less injuries than non-alcoholics: according to the authors, this reflects that such workers are not maintained in safety-sensitive positions, or (more interestingly), they may develop a "safety behavior," taking extra caution while completing work tasks, knowing that they use alcohol.

Back in 2000, two occupational medicine specialists, Gournay and Mathis, were probably as skeptical as Renaud Crespin or I were about the "15 to 20%" of occupational injuries related to alcohol use. It did not align with their practice, nor the practice of most occupational medicine specialists. These two authors found some previous studies, conducted in the 1980s, showing that, in the emergency room, workplace accidents and sports-related injuries were the accidents associated with the lowest levels of alcohol in the blood. Gournay and Mathis decided to conduct a study with 161 community-based occupational medicine specialists.[19] Among the 8514 workers seen by these 161 physicians within 15 days, 95 (1.1%) met the criteria for alcoholism, and 285 (3.4%) were considered excessive drinkers. Among the 129,375 workers seen by 63 occupational medicine specialists during the entire year of 1996, 447 (0.3%) were experiencing fitness for work issues related to their alcohol use: this means that the occupational medicine specialist considered it was unsafe for them to continue working because of their alcohol use. The authors concluded that the figures were lower than explained, but that the concern may well be outside of work.

---

18 Conditions to use the chi-square test were met. This test compares frequencies between groups. In this case, the *p*-value is 0.082 with Yates' correction (and 0.066 without).

19 Gournay M and Mathis MT. Alcoolisation en milieu de travail: enquête en Basse-Normandie. *Documents Pour le Médecin du Travail* 2000: 43–48.

Looking at Substance Use at Work Beyond Potential Safety Risks

Kicking out of work a worker who has alcohol-related issues is very likely to make their life worse. Workers with a substance-use disorder losing their job are at increased risk of drinking more. In the meantime, the occupational medicine specialist is on the safe side: it is no longer their problem. This problematic worker is out of their sight once they are out of work. While fixing plausible risks by removing workers from workplaces, their alcohol use can be reinforced.

Back in 1994, the US National Research Council and Institute of Medicine Committee on Drug Use in the Workplace was already considering that "*the relationship between employee alcohol and other drug use* [was] *mixed, despite the heavy media attention given to accidents by employees working under the influence and the seemingly obvious association between working while impaired and having accidents*."[20] They recognized that data was more available for workers from the transportation industry than from other sectors. The authors of this quite old (but extremely informative) report pointed out the many issues with the observational research that is used to document the links between injuries and substance use: flaws, issues with self-reported data, lack of correlation between urine tests and frequency of substance use.... They reported that there are some confounders, such as job stress, and this may influence the results of studies on the effect of alcohol use and absenteeism for instance:

> *Job stresses, for example, might lead people both to take alcohol and other drugs and to absent themselves from work. If so, eliminating alcohol and other drug use without decreasing job stress might actually increase absenteeism, because one coping mechanism would be gone.*

Overall, the authors considered that the relationship between alcohol use and job behaviors is clearly negative, but the magnitude of the relationship and the causality were less clear. Several commonly shared figures are exaggerated and are not based on sound evidence.

This has constituted the basis for a paternalistic approach, where workers are seen as children, who just need to be prohibited from drinking at work. The use of substances is also looked at from a morality standpoint: "*drugs are bad*." The effect

---

20 National Research Council (US) and Institute of Medicine (US) Committee on Drug Use in the Workplace. Impact of alcohol and other drug use: observational/field studies. In: Normand J, Lempert RO, and O'Brien CP (Eds). Under the influence? Drugs and the American work force. 1994. Washington, DC. National Academies Press https://www.ncbi.nlm.nih.gov/books/NBK236258.

of substances on work is seen as an on–off effect: workers should not be taking any substance at work at all, and if they are taking some, hence it becomes immediately a hazard. The reality is likely not as Manichean as that. There may well be a continuum: workers, even presenting with substance-use disorders, are not necessarily completely irresponsible and mindless of the safety concerns. They may develop mitigation strategies, at least for a while.

This has been well described in another area providing safety concerns. Davezies and Charbotel looked at road traffic injuries in drivers with diabetes.[21] For years, patients with diabetes were restricted from occupying safety-sensitive jobs, on the basis that they might have more injuries. Like with alcohol, this sinistrality has been exaggerated, and in publications, the risk is minimal when not totally inexistant. This unfounded belief has led workers with diabetes to be unfairly discriminated against for many years. Davezies and Charbotel reviewed the available literature and realized that patients with severe diabetes do not appear to have more road traffic injuries. Such patients reduce their driving by themselves. Drivers with diabetes are likely to be more prudent than the general population when they feel hypoglycemia coming on.

We have just explored the unidirectional link between substances and both work-related stress and work-related injuries. However, such a link between substances and work is far from being unidirectional. Let us go a step further, looking at the effect of substances more qualitatively.

The Three Characteristics of a Substance: Toxicity, Effect Intensity, and Addictiveness

Claude Olievenstein (1933–2008), another influential figure in addiction medicine, considered that addictive behaviors started when a substance, an individual, and a specific sociocultural moment meet together.[22] Otherwise said, you can become addicted to a substance when you have an opportunity to try that substance, and when circumstances help transform it into an addictive behavior. These circumstances (the "sociocultural moment") include work. Hence, work can be a protective factor (you are less likely to become addicted if you have a job),

21 Davezies P, Charbotel B. *Pré enquête sur les accidents de la route dans le cadre du travail. Préparation d'une enquête épidémiologique.* Rapport de recherche. IFSTTAR - Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux. 2005. Available from https://hal.science/hal-01574830v1/document (accessed on August 12, 2024).

22 Valleur M. Les modèles psychologiques de compréhension des addictions. In: Reynaud M (Ed.). (Dir.), Traité d'addictologie. 2006. Paris. Flammarion.

or work can act as a risk factor (if you are exposed to psychosocial hazards, this may facilitate an addictive behavior).

Each substance can be looked at regarding three characteristics as defined by psychiatrist Alain Morel:[23]

- *Toxicity* – the potential to generate physiological damage.
- *Effect intensity* – the substance's potential to influence perceptions, cognition, mood, motivation....
- *Addictiveness* – the substance's potential to generate an addiction (a substance-use disorder).

Not all substances are equal with regard to these three dimensions. For instance, tobacco is extremely toxic (it can cause many cancers, cardiovascular conditions...), it is highly addictive (you do not need to smoke many cigarettes to develop a substance-use disorder), but the intensity of the effect generated by each cigarette is quite low. LSD (the lysergic acid diethylamine) generates effects of greater intensity compared to tobacco.

Hence, not all substances will be used for the same work-related purpose. The circumstances may direct a user towards different substances according to work conditions and the effects that are sought. For instance, a worker in chronic pain who has no benefits and cannot afford to be off work may over-use opioids they have been prescribed. An artist may seek the hallucinatory effects of LSD to enhance creativity. A person who is paralyzed with anxiety may take a bit of alcohol prior to speaking at a conference. The kind of effect people are looking for would be on the "effect intensity" axis described by Morel. However, when you pick a substance, you pick it all: even if you're just looking for a certain effect intensity, no matter what, the substance will come with its own toxicity and addictiveness, which may cause secondary issues for the user. The onset of a substance-use disorder that can start after repeated uses of the substance is a side-effect that does not help with work performance.

Doping: Using a Substance to Improve One's Performance

Basically, this kind of behavior is called *doping behavior*. Patrick Laure, a physician and researcher at Nancy University in France, has defined doping in a very simple way: "*using a substance for performance*." He also provided a more extensive definition:[24]

---

23 Morel A. Drogues, dangers et complications. In: Morel A, Couteron JP, and Fouilland P (Eds). (Dir.), L'aide-mémoire d'addictologie en 46 notions. 2010. Paris. Editions Dunod.

24 Laure P (Dir.),. Dopage et société. 2000. Paris. Editions Ellipses (p. 28).

> *Doping behavior is characterized by the use of a substance to face or to overcome a hurdle, genuine or felt by the user or those around them, for performance purposes.*

It is important to distinguish *doping behavior* from *doping*. Doping is a notion restricted to sports. The World Anti-Doping Agency (WADA) defined doping as the "*occurrence of one or more of the anti-doping rule violations set forth in Article 2.1 through Article 2.11 of the* [World Anti-Doping] *Code*."[25] Doping goes well beyond the simple use of a substance, as tampering with the doping control, trafficking the sample, or retaliation against the authorities are considered doping as well. Interestingly, there is no element of intention in the definition of doping, which means that the fact that the athlete was seeking to improve their performance or not is irrelevant to the WADA definition of doping. As such, doping may or may not be a doping behavior, and doping behaviors may or may not be doping.

The WADA "prohibited list" contains all substances and methods that can constitute doping when used.[26] These are classified under different categories and updated at least annually Regular updates are required as the drug market is moving quite fast. Regulatory agencies are always behind the chemists who create such substances. The categories in this list are more numerous currently than in the past. The diversity of methods and molecules reflects the diversity of effects that can be obtained through doping. Some can directly address the need for performance (e.g. erythropoietin which will increase oxygen uptake, opioids which will reduce pain...), while others can be used for cheating purposes (e.g. diuretics, intravenous infusions...).

Why Are People Cheating? The Game Theory

Why are some athletes using doping methods? An easy answer would perhaps be to maximize their chances of winning. A more elaborate answer would refer to the *game theory*. This requires a bit of explanation.

You may have heard of Blaise Pascal's wager. Pascal was a philosopher (1623–1662) who was willing to determine whether it was worth believing in God. He examined all combinations:

---

25 *World Anti-Doping Code 2021*. Available from https://www.wada-ama.org/sites/default/files/resources/files/2021_wada_code.pdf (accessed on August 13, 2024).

26 World Anti-Doping Agency. *The prohibited list*. Available from https://www.wada-ama.org/en/prohibited-list#search-anchor (accessed on August 13, 2024).

- If God exists and I believe in Him, I may go to Heaven.
- If God exists and I do not believe in Him, I'll go to Hell.
- If God does not exist and I believe in Him, nothing will happen.
- If God does not exist and I do not believe in Him, nothing will happen either.

Based on this, Pascal thought that it was worth believing in God. The risks of adverse effects are lower in his opinion.

John von Neumann, a mathematician, and Oskar Morgenstern, an economist, have elaborated a mathematical theory that helped predict the behavior of individuals navigating uncertainty. This theory was then applied to doping by Gunnar Breivik,[27] referring to the prisoner's dilemma, which is somewhat inspired by Pascal's wager.

Let's assume that a crime has been committed, and we have two suspects: A and B, who have been arrested. A and B are placed in detention, and they cannot communicate together. Hence, they have no idea what the other one will do. If A reports B, A is released and B is sentenced to 10 years. If both report each other (A reports B and B reports A), both are sentenced to 5 years. If both refuse to report (no one reports), both are sentenced to 0.5 years due to lack of evidence. These combinations are provided in Table 4.

Even though collectively their best interest might be not to report (both would only get half a year of detention), based on Table 4, the only scenario that gives a chance for A or B to be released from jail is when they report. This general idea has been applied to doping situations. Athletes (especially opponents) are unlikely to casually chat about whether they intend to cheat in a competition. They are in a similar situation to our prisoners A and B: they will not know what the others

Table 4 Illustration of the prisoner's dilemma

	A	
B	**Reports**	**Does not report**
Reports	A gets 5 years B gets 5 years	A gets 10 years B gets 0 years
Does not report	A gets 0 years B gets 10 years	A gets 0.5 years B gets 0.5 years

27 Breivik G. Doping games: a game theoretical exploration of doping. *International Review for the Sociology of Sport* 1992; 27(3): 235–252.

Table 5 Prisoner's dilemma applied to doping

	A	
B	**Doping**	**No doping**
Doping	Draw between A and B	A loses B wins
No doping	A wins B loses	Draw between A and B

will do. Let's assume that the athletes' capacities are so similar that only the doping makes a difference, and summarize the combinations in a table (Table 5), similar to the one we have seen with the prisoner's dilemma. Similarly, the only scenario in which A wins is when they are doping.

This said, the game theory/prisoner's dilemma is very theoretical. It is an algorithmic vision of human behavior, which obviously is a little more complex than assumptions that can be summarized in two-by-two tables. However, this is an existing theory that has been used to try to understand why doping in sports competitions is something that's at least 3000 years old.[28]

Lutz's Four Reasons to Use Substances at Work

Ergonomist and work psychologist Gladys Lutz has proposed a classification including four categories that give more complexity to the variety of work-related substance usages.[29] Reasons for workers to use substances include the following:

1) *To get numb (or to "anesthetize" oneself)* to keep working physically and mentally. This includes strategies such as pain control (using opioids to keep working despite the pain), or anxiety control (using anxiolytics or alcohol to reduce the anxiety generated by some tasks, or beta-blockers to reduce the tremor associated with the stress when talking in public). Occupational psychiatrist Claude Veil, for instance, described how alcohol can be used to remove the inhibition behavior caused by fear in safety-sensitive positions.[30]

28 Ibid.
29 Lutz G. Les fonctions professionnelles des consommations de substances psychoactives. In: Lutz G, Lhuilier D, and Crespin R (Eds). Se doper pour travailler. 2017. Toulouse. Editions Eres.
30 Billiard I. Claude Veil, un pionnier de la psychopathologie du travail. *Travailler* 2001; 5(1): 175–188.

2) *To stimulate, euphorize, and disinhibit*. This includes strategies to stay awake (using cocaine or coffee to do so), or to increase one's mental and physical capacity to accomplish a task. This also includes the use of hallucinogens to stimulate creativity. In arts, some composers and music writers have used psychoactive substances to be more creative, such as some artists of the psychedelic movement in the 1960s. Interestingly, the song *Lucy in the Sky with Diamonds*, written by John Lennon, has often been considered to have been written under the influence of LSD, although this was denied by him.[31,32] However, Paul McCartney has said that "*drugs did influence some of the group's compositions*."
3) *To recover*. This category includes usage helping people to "come down" after intense activity. An example is with the musical actress Judy Garland – famous for her role in the 1939 movie *The Wizard of Oz* – who was exploited and forced to use psychostimulants ("pep pills") to be able to carry on with very long days of shooting on stage (which would fall under category #2). She would also be provided with sleeping pills afterwards to be able to sleep despite the use of stimulants:[33]

> *They'd give us pep pills, then they'd take us to the studio hospital and knock us cold with sleeping pills... after four hours they'd wake us up and give us pep pills again... that's the way we worked, and that's the way we got thin. That's the way we got mixed up. And that's the way we lost contact*.

4) *To fit into a group, to nurture professional relationships*. This includes the use of substances such as alcohol at professional dinners.

With this perspective, doping behaviors are not strictly substance use to obtain performance, rather a way to avoid failure. Again, it may not be because a worker uses a substance, even for work-related purposes, that they have a disease (a substance-use disorder). However, having reasons to use a substance can increase the risk of developing such disorder in the long term. Hence, we have in any case a possible connection between working conditions, which may facilitate the use of some substances in some workers who can develop addictive disorders.

---

31 US News. *Drug belied Beatles' squeaky-clean image*. Available from https://www.usnews.com/news/special-reports/articles/2014/01/22/drug-use-belied-beatles-squeaky-clean-image#:~:text=As%20early%20as%201961%2C%20the,that%20they%20got%20particularly%20high (accessed on August 20, 2024).

32 O'Malley G. *Music Review: Lucy in the Sky with Diamonds*. Available from https://www.acep.org/toxicology/venomous-media-reviews/music-review-lucy-in-the-sky-with-diamonds (accessed on August 20, 2024).

33 PBS News. *The day Judy Garland's star burned out*. Available from https://www.pbs.org/newshour/health/the-day-judy-garlands-star-burned-out (accessed on August 20, 2024).

So far, we have explored the relationships between work and substances. However, there are also behavioral addictions that we have not discussed much yet.

What About Behavioral Addictions and Work? Gambling and Workaholism

The only behavioral addiction that has been recognized as of today is gambling. There have been limited publications on the links between gambling and work. One of my former residents, Matthieu Dezutter, now an occupational medicine specialist working in France, wrote his MD dissertation on this topic.[34] He conducted a cross-sectional study in an occupational health service for small and medium-sized companies, including 410 employees in 2016 and 2017. A total of 138 of them had gambled at least once in the past 12 months (66%). Problem gamblers were identified through a two-step process. All included employees completed the "Lie or Bet" questionnaire, which includes two questions: *Have you ever lied to your family or friends about the money you have gambled? Have you ever felt the need to bet more and more money?* Thirty-six employees screened positive on Lie or Bet, which means that they responded yes to at least one of these two questions. Only those who screened positive were provided with a longer questionnaire, the Canadian Problem Gambling Index (CPGI), which helps identify individuals with problem gambling. Only 13 workers met the criteria for problem gambling (3.2% of the total population), which was comparable to levels in the general French population. The most used were "hazard" games, including scratchcards, lotteries, and casinos.

Twelve respondents considered that their gambling experience was facilitated by their work. Qualitative data gathered among gamblers provided hypotheses to explain the links between work and gambling, including the influence of colleagues and supervisors, or the ease of access to gambling at work (for workers in bars where scratchcards are sold for instance). Interestingly, it is likely that those with a lower income could gamble more: the impact of winning a prize decreases as your income increases (if you win $500, it does not have the same impact if your monthly earnings are $2000 or $20,000).

Another phenomenon worth mentioning here is *workaholism*, which is not approved as an addiction in the DSM classifications as of today. This does not prevent researchers (including me) having been interested in it for more than 100 years.

---

34 Dezutter M, Guillou-Landreat M, Dewitte JD et al. Prevalence of problem gambling in an employed population in Brittany, France. *Industrial Health* 2020; 58(1): 78–87.

Sigmund Freud, the famous psychoanalyst, is not known to have given lots of thought to work. He had other centers of interest. However, one of his students, Sandor Ferenczi, wrote a small paper in 1919[35] in which he describes the *Sonntagsneurosen* (Sunday neurosis).[36] He noted that some individuals would experience stomach-aches and headaches on Sundays, precisely on their day off work. As any good psychoanalyst would do, he interpreted this phenomenon as the result of impulses, kept under control during the remainder of the week, when people are so busy with work. On Sundays, they were left to themselves and their impulses, which generated these symptoms that wasted their only free day of the week.

Fast forward to 1971. Wayne Oates (1917–1999), a specialist in psychology of religion, wrote a book called *Confessions of a workaholic* (published in 1971).[37] This book includes few academic references, and a lot of personal anecdotes. Oates acknowledges that he himself was a workaholic. In this sense, it is quite similar to the contribution of Herbert Freudenberger[38]. However, this book is typically considered one of the main contributions about workaholism. Oates writes that:

> *Workaholism is a word which I have invented. It is not in your dictionary. It means addiction to work, the compulsion or the uncontrollable need to work incessantly.*

Oates describes workaholism by making innumerable references to the Christian religion. This is not necessarily an intrinsic problem, except if we try to look at the phenomenon from a scientific perspective. For Oates, workaholism happens because "*we take very seriously the words of God to Adam and Eve: 'In the sweat of your face you shall eat bread till you return to the ground'...*" (Genesis 3:19a). Workaholism would be "*a religious virtue*."

Even where one could identify systemic and social issues, such as the problem of low income as a potential driver for overcommitment, Oates reframes this as a problem of virtue and sin. When he mentions "*policemen and firemen forced to take additional jobs to supplement their income*," he adds that if getting a higher salary is a driver for workaholism, it is because of social prestige such as getting two cars. It would be an expression of covetousness, as mentioned in the Ten

35 The paper in German is available at https://www.textlog.de/8527.html (accessed on August 20, 2024).

36 Marinho N. La paix – notre névrose des dimanches. *Outre-terre* 2016; 48(3): 373–379.

37 Oates W. Confessions of a workhaolic. 1971. New York. World Publishing Company.

38 Freudenberger HJ and Richelson G. Burnout, the high cost of high achievement, what it is and how to survive it. 1980. New York. Anchor Press.

Commandments ("*you shall not covet your neighbor's house*"). Similarly, when some workers take extra tasks that are unpaid (e.g. a professor called as a consultant for a governmental agency) not because of overwork, but rather because of the worker's own ego.

When it comes to addressing solutions for workers to get better, it is hence not surprising that all the effort is on them. In the conclusion of his book, he is crystal clear:

> *Behavior can be changed. You can decide to change and do so.*

While looking at the specificities of workaholism in women, he provides "health hints" such as the suggestion for them to visit the hairdresser, get manicured, and go window shopping. Workaholics can attend retreats at suggested centers. Oates is kind enough to provide the reader with the names of reliable retreat centers to go to.[39] He would advise good management of vacation time, finding it ridiculous that, given we have so many days off work – providing readers with a detailed calculation – one is not able to get good rest. All in all, Oates does not provide any insight on workplace factors as contributors for the risk of developing workaholism, which is something that I struggle with as we talk of a work-related phenomenon.

Obviously, since this description, research has progressed considerably, but not to the extent of having workaholism recognized as a DSM-5-TR diagnosis. Workaholism can be perceived in two different ways. Some authors[40] would consider it to be a real addiction, with a craving for work. Some authors would describe it as some sort of obsessive-compulsive disorder (OCD): an inner drive (the obsession) would be responsible for workers to work excessively (the compulsion).[41] There is a plethora of scales aimed at measuring workaholism:[42] the Work Addiction Risk Test (beautifully named WART), the Bergen Work Addiction Scale (BWAS), the Dutch Work Addiction Scale (DUWAS), the Workaholism Battery (WorkBAT)....

One main issue lies with how workaholic individuals are perceived. They can be seen as compulsive, perfectionists, bulimics, presenting with ADHD (attention

---

39 I am not advertising for these centers in this book, but the centers mentioned by Oates in his 1971 book are still operating in 2024.

40 Wojdylo K, Baumann N, Fischbach L, and Engeser S. Live to work or love to work: work craving and work engagement. *PLoS One* 2014; 9(10): e106379.

41 Schaufeli W, Taris T, and Van Rhenen W. Workaholism, burnout, and work engagement: three of a kind or three different kinds of employee well-being? *Applied Psychology* 2008; 57(2): 173–203.

42 Durand-Moreau Q, Le Deun C, Lodde B, and Dewitte JD. The framework of clinical occupational medicine to provide new insight for workaholism. *Industrial Health* 2018; 56(5): 441–451.

deficit hyperactivity disorder).... In this view, workaholism is basically a "*me*" problem. Otherwise said, this is a psychogenetic view.[43] This leads to individual-based approaches (a bit like Oates recommended), working on motivation or relaxation. In this view, there is no analysis of workplace factors, which is always something that's a source of irritation to me.

We have therefore tried to apply the framework that I described previously to clinical situations reported by patients for whom we could wonder whether they might be workaholics.[44] Let us have a look at the story of Daniel.

Daniel, a Workaholic Sales Representative

Daniel was 41, selling tools and equipment door-to-door to professionals in construction, such as plumbers, electricians, or carpenters. He was referred to my clinic so I could assess his fitness for work. He was indeed quite unwell. He had a range of physical symptoms such as joint pain and gastrointestinal symptoms, for which he had an endoscopy that ended up being normal. His mental health was even more concerning. He had depressive symptoms, sleep disorders. He stopped seeing some of his friends. He was smoking half a pack of cigarettes every day and drinking a lot of alcohol. Every day, he would have two glasses of whiskey and two glasses of wine, which he would drink to get drunk and relax. He was unable to stop after one drink and was losing control of his alcohol use. He also used cannabis, also to relax (at that time, it was illegal in France). When I assessed him, he had been on sick leave for the past two months.

Everything went well at the start. As a sales representative, Daniel had to travel over an area of about 50 km in diameter. He had a portfolio of about 140 customers, to whom he was selling some of the thousands of reference items in the catalog: anything from logs to nails and ceiling rails. The job came with a service vehicle and a phone. This was quite a nice benefit at that time. He was allowed to use both for his personal needs, so he did not have to own a vehicle or a phone. He was passionate and convinced about the good quality of the products he was selling. His relationships with his boss were excellent.

So, what went wrong for Daniel? Over time there was an increasing disconnect between what he was selling, the performance targets, and his salary. His salary was based on his margin coefficient: this means that the higher the difference

43 You can review the section of the book about Le Guillant, the Papin sisters, and the difference between sociogenetics and psychogenetics.

44 Durand-Moreau Q, Ragot A, Balez R et al. Importance of multidisciplinary medical collaboration in occupational health: a case-report on workaholism. *Archives des Maladies Professionnelles et de l'Environnement* 2014; 75(3): 303–308.

between the cost of an item to the business and the price it was sold to the customer, the better it was for his salary. Having a high margin coefficient was typically possible for rare and niche items. Those would likely be pricier, as customers would have more difficulty finding these at another provider. However, his performance targets were calculated in terms of volume of sales, which typically concerns the exact opposite type of goods. You can sell large amounts of items when these are not very pricy, and typically were also available in other stores. So, he was not able to sell them at a high price, which would reduce his margin coefficient. All in all, it was impossible to achieve both: having large volumes of items sold (for his performance indicator) and high margin coefficients (for his salary). Despite an increase in sales volume, his salary decreased over time. In addition to this system, the company also used an additional "motivational" tool for its workers, through regular challenges. For instance, the representative who was selling the highest number of hammers during a month would be given a bonus. He was trying to catch up with this system, working an increased number of hours, but it was impossible. He was always behind.

Some of the benefits that came with the business progressively appeared to be more toxic than profitable. The unsold goods were stored in his basement: basically, every day, he had opportunities to be reminded how unsuccessful he was, with the accumulation of all the items left unsold. Customers would phone him no matter when: they did not pay attention to weekends or days off for Daniel. As he was using the phone for personal purposes as well, work duties were entering his life at any time. He had no fixed income: all of his monthly income was directly related to his performance. This was a driver to work more, despite being sick. His other addictions got worse in the meantime: he was smoking more, drinking more, and using more cannabis. The relationship with his wife degraded.

What makes patients with workaholism a bit different than other patients coming to my clinic for work-related mental health issues is that relationships with supervisors stay excellent for a while. These workers are very well viewed by their supervisors, as they are so committed. They are also particularly ambivalent: they recognize that their work is making them sick, but they are extremely reluctant to stop. I ended up recommending that Daniel be declared unfit for this job.

There definitely are some job characteristics that can facilitate some sort of addictive behavior towards work. At first, these aspects look good, exactly as the first experience with heroin might look good to an addict. How can you be unhappy with a nice service car or a paid phone with a good mobile plan? It's a bit later that the toxicity can appear.

Let's recap what we have seen in this chapter. Substance use at work is often seen from a paternalistic view. The dominant practice is usually an HR-like approach, mostly based on screening programs, positivity of tests, and centered on usage rather than condition. Occupational health providers must remember that

not all usages of substances lead to substance-use disorders: not all uses constitute a health problem. This approach leads to rejecting or excluding workers from workplaces by excess. Paradoxically, it may even increase the risk of developing an addictive disorder as they lose their job and support systems. It would be extremely unethical for any occupational health provider not to consider the health side-effects of job rejection, just because jobless workers would be out of their sight.

Hence, there is a need for a more nuanced and comprehensive approach, leaving paternalism aside. This is certainly not to say that safety should be out of the equation when looking at the connections between substance use and occupational health. This would be a very slippery slope to take. However, the data and the evidence provide a much more contrasted view than the catastrophic estimations of up to 20% of occupational injuries related to alcohol use. Prevention practices to reduce the burden of substance-use disorders in the workplace must examine the work activity, the real work, where facilitators of substance use can be found. Besides, such an approach can be extended to non-substance-use disorders or behavioral addictions.

8

Psychosocial Factors, Hazards, and Risks

At this stage of the book, it is time to start wrapping up. Time to summarize some elements we have reviewed so far before we move to the final section where we will discuss solutions for workplaces. The best way to do that is to bring together the concepts of psychosocial factors, psychosocial hazards, and psychosocial risks. Figure 8 is a very condensed and summarized representation of the key concepts we will detail in this chapter.

How Are Psychosocial Factors and Hazards Defined?

Stavroula Leka, professor of organizations, work, and health at Lancaster University (UK), is the first person that pops into my mind when I think of this topic. I will refer to her approach to psychosocial hazards, risks, and factors.[1]

Psychosocial factors are ways of organizing and managing work. Think of these factors as parameters in your workplace. In any job, you will have a degree of social support (whether it is high or low does not matter here), a degree of workload (whether it is too much or not enough does not matter here), a degree of demands.... We are here just considering the parameters, but not yet the magnitude or the specifics of the parameters. The factors are neither positive nor negative: they just are.

I sometimes describe psychosocial hazards as the worst-case scenario of psychosocial factors. Said correctly by Thomas Cox and Amanda Griffiths,[2] it refers to the "*aspects of work design and the organization and management of*

1 Leka S, Cox T. *The European framework for psychosocial risk management: PRISMA-EF*. Available from http://www.prima-ef.org/uploads/1/1/0/2/11022736/prima-ef_ebook.pdf (accessed on October 18, 2024).
2 Cited in Leka and Cox, ibid.

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition. Quentin Durand-Moreau.

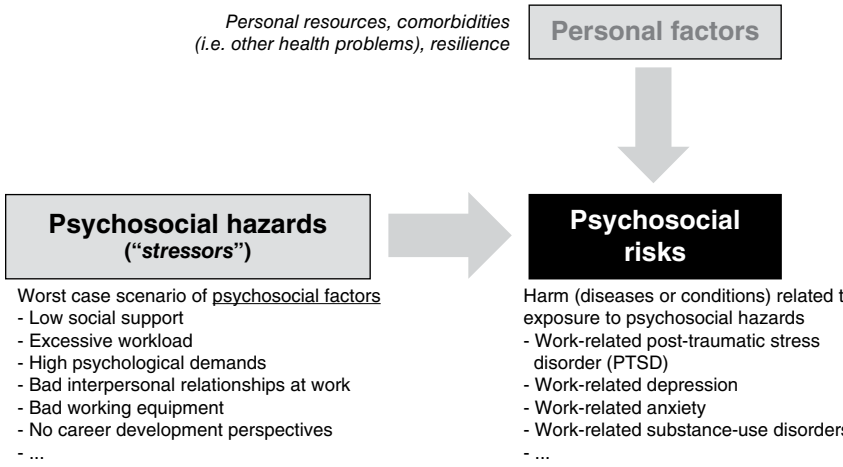

Figure 8 Relations between psychosocial hazards, personal factors, and psychosocial risks

work, and their social and environment contexts, which have the potential for causing psychological, social, and physical harm." This definition has the convenience of being close to the well-known definition of an occupational hazard, considered as a source or situation with a potential for harm in terms of human injury or ill-health, damage to property, to the environment, or a combination of these.

However, it is impossible to look at psychosocial hazards being just an excess or a deficit of a psychosocial factor. It is not just a quantitative dimension. It is qualitative, and complex to appraise. For instance, if we consider job content, which is a psychosocial factor: psychosocial hazards related to job content are not just going to be "too much job content" or "too little job content." This would not mean anything. Elements to consider include the variety of tasks (either not enough or too much), the uncertainty (or too high predictability, some workers can't stand doing the exact same tasks for a long period of time), the lack of meaning in their work.... Psychosocial hazards are not simple boxes to tick on a checklist: we need to look at the details within each category of psychosocial factors. Besides, what might be a psychosocial hazard for one worker may be a resource for another. Where a worker will find it difficult to deal with constantly recurring tasks, some others may find some benefit in having a regular schedule.

Finally, psychosocial risks are the probability that exposure to psychosocial hazards creates harm. Similarly, this definition is close to the traditional definition of an occupational risk, which is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard. For instance, asbestos is a hazard (it has the potential for harm in terms of human ill-health). However, there is a risk if you are exposed to the hazard. If you just touch the asbestos, you will likely not be exposed, there is no risk. There is a risk if you inhale asbestos fibers: you may develop a variety of serious conditions, such as

lung cancer, colon cancer, or mesothelioma. These are the risks related to the exposure to asbestos. If we are quite simplistic, we could use this formula:

$$Risk = Hazard \times Exposure$$

We could see that in a similar way for psychosocial risks. Workers exposed to adverse working conditions (i.e. psychosocial hazards) then have a risk of developing a variety of health problems, including work-related mental health conditions. Psychosocial risks are therefore more expressed in terms of diseases, illnesses, and conditions. These can include work-related depression, PTSD, anxiety, and substance-use disorders, as we have seen previously.

In this chapter, we will then spend more time discussing psychosocial factors and hazards (in Chapter 5 we discussed the risks – the conditions that may be caused by the exposure to psychosocial hazards).

How Are Psychosocial Factors and Hazards Classified?

There are different classifications of psychosocial factors and hazards. One of these has been provided by the organizational psychologist Thomas Cox,[3] and further revised in 2024 under the leadership of Stavroula Leka and Aditya Jain, professor of sustainable work and development at Nottingham University (UK).[4] This revised classification provides categories of psychosocial factors, but also includes elements describing a positive psychosocial work environment (Table 6).

Such classifications have the interest of providing a range of domains (psychosocial factors) to consider when an occupational health provider must conduct a review of psychosocial risks within a workplace. Then, within each one of these domains, there are a variety of parameters to consider, which may constitute psychosocial hazards or resources.

Another classification has been provided in a report, coordinated by statistician Marceline Bodier and sociologist Michel Gollac. They have provided a classification with six large categories of psychosocial factors, considered as a gold standard in France, and used for instance by the French National Research and Safety Institute (INRS).[5] The interest of this classification is that it originated from a working

3 Leka S, Cox T. *The European framework for psychosocial risk management: PRISMA-EF*. Available from http://www.prima-ef.org/uploads/1/1/0/2/11022736/prima-ef_ebook.pdf (accessed on October 18, 2024).

4 Leka S, Jain A. Conceptualising work-related psychosocial risks: current state of the art and implications for research, policy and practice. Report 2024.09. ETUI.

5 INRS. *Risques psychosociaux: facteurs de risque*. Available from https://www.inrs.fr/risques/psychosociaux/facteurs-risques.html (accessed on October 24, 2024).

Table 6 Psychosocial factors and positive psychosocial work environment (Leka et al., 2017, revised in 2024)

Psychosocial factors	Elements of a positive psychosocial work environment
Organizational culture and function	Good psychosocial safety climate (policies and processes demonstrating leadership prioritization of, and commitment to, promoting a healthy psychosocial work environment and mental health at work in a preventive way)
	Ethical and transparent leadership and management practices
	Organizational culture based on psychological safety, justice, and trust
	Good and inclusive communication processes
	Employee participation and consultation
	Clear organizational objectives
	Value congruence
	Appropriate support for problem-solving
	Minimization of unnecessary bureaucracy
	Well-planned organizational change management
Job content	Clear and meaningful work tasks
	Appropriate task design reducing cognitive load
	Appropriate use of skills
	Work that retains employee interest and engagement
	Appropriate support to deal with high emotional demands and interactions with difficult people
	Application of ethical standards to prevent moral injury
Workload and work pace	Appropriate level of workload
	Well-planned workload
	Appropriate work pace
	Sensible and achievable deadlines
	Well-planned changes in work organization and application of new technologies
	Appropriate training in the use of new technologies
	Human-in-control design
	Adequate staffing
Work schedule	Sensible shifts
	Reasonable working hours to maintain work–life balance
	Flexible working practices to the fullest extent possible
	Well-planned working schedules
	Respect for the right to disconnect
Control	Participation in decision-making
	Control over workload, work tasks and methods, and pace of work
	Autonomy matched to worker abilities
	Transparent and balanced use of algorithms and digital surveillance
	Privacy and data protection

(*Continued*)

Table 6 (Continued)

Psychosocial factors	Elements of a positive psychosocial work environment
Environment and equipment	Good physical working conditions according to good practice guidance
	Minimization of isolated work
	Minimization of exposure to extreme environmental conditions and unstable/ traumatic environments and material, and provision of security and support measures
	Appropriate and well-maintained equipment
	Appropriate training for new equipment and technology
Interpersonal relationships at work	Good relationships at work
	Teamwork and collaboration
	Social support from superiors and colleagues
	Civility and respect
	Appropriate policies and procedures to deal with conflicts
	Fair, anti-discriminatory, and inclusive policies
	Zero tolerance of violence, harassment, (cyber)bullying and stigma
Role in organization	Clear roles and responsibilities
	Appropriate support to meet objectives
	Promoting clear and meaningful professional identity
Career development	Appropriate career prospects and development matching skills and performance
	Constructive feedback mechanisms
	Training and learning opportunities that support sustainable employability
	Effort–reward balance
	Appropriate pay
	Meaningful and valuable work
	Job security
	Work stability
	Well-designed evaluation systems not solely based on algorithms
	Minimizing algorithmic bureaucracy
Home–work interface	Work–life balance
	Right to disconnect
	Supportive organizational policies and practices to achieve « life balance »
	Minimization of unnecessary worker mobility
	Balanced careers

group chaired by Gollac, who interviewed many colleagues having different approaches to this topic (either quantitative or qualitative). Interviewed for this report we have some authors who have been referred to previously in this book, in particular Yves Clot, Marie-France Hirigoyen, Marc Loriol, Robert Karasek, and Johannes Siegrist (all of whom have very different, sometimes even antagonistic, approaches). National organizations representing employers, and several national unions representing workers, were also auditioned. Several literature reviews were conducted to inform the report.

Table 7 summarizes the six dimensions and the elements that need to be considered for each dimension. You will notice that elements from the Karasek model (job demands, decision latitude, social support) and the Siegrist model (effort, rewards) are included under some of the six dimensions of the Gollac and Bodier criteria. I will not detail every single of these dimensions, but I would like to review some elements, to illustrate the complexity of assessing them.

Table 7 Key indicators to consider for each of the six categories of psychosocial factors

Dimension	Variables to consider
1. Work intensity and working time	Constraint pace, precision, quantitative targets, difficulty in meeting the targets, quantitative and quality outcomes, supervision duties, conflicting instructions, task interruption, material and environmental issues, lack of work preparation, lack of time to complete the task successfully, being overwhelmed, appropriate means to conduct the work, subjective perception of work intensity, overinvestment, number of hours worked, night work, shift work, weekend work, uncertainty and unpredictability of work schedules, presenteeism, work–life balance issues (Some sections of the Karasek and the Siegrist questionnaires about psychological demands and efforts should be considered)
2. Emotional demands	Facing the public, situations of tension, regular contact with distressed individuals and related requirements, power to act on such distress, hiding and fake emotions, fear of accidents, and external violence
3. Work autonomy	Procedural autonomy (the worker decides on the procedure to complete their task), autonomy related to the task's goal, predictability of work, cognitive and cultural development, skill use and growth, monotonous work, and pleasure at work (The section of the Karasek questionnaire on decision latitude should be considered)

(*Continued*)

Table 7 (Continued)

Dimension	Variables to consider
4. Social relations at work	Possibilities of collaboration, sufficient support under challenging situations, tensions at work, excessive concurrence, collective autonomy, worker participation in the organization
	Technical support from supervisors, appropriate behavior from the hierarchy, control style, clarity and sincerity of information and instructions provided by the hierarchy, debates are accepted and promoted by the hierarchy, behavior of the hierarchy when a conflict arises, ability from the hierarchy to organize and pacify the team, attention to collaborators' wellbeing, recognition of the contributions by the supervisor
	Quality of work status, good salary level, career prospects, adequacy between the task and the individual, possibility to use the workers' own skills to decide how to complete a task, strict evaluation processes
	Dissatisfaction of users receiving the work completed, feeling of usefulness
	Bullying/harassment, sexual harassment, daily life discrimination
	(The reward score of the Siegrist questionnaire should be used, a measure of organizational justice, assessing relationships and procedures should be considered)
5. Value conflicts	Ethical conflicts, "prevented quality" (*qualité empêchée*), feeling of usefulness of the work completed
6. Employment insecurity	Objective indicators of employment insecurity (fixed-term contracts, undesired part-time contracts, informal work), workers' subjective perception of employment security, career security, specific risks related to working in project mode, perception of sustainability of work, risks related to organizational changes, and repeated changes

(adapted from Gollac and Bodier).

Exhaustivity, Objectivity, and Questionnaires Assessing Psychosocial Factors

Work–life balance issues are mentioned as an element to consider under the category "work intensity and working time." There is no such thing as a strong impermeable barrier between the "work life" and the "personal life." We all think of work stuff while at home (e.g. we can anticipate our working week on a Sunday evening), and we all think of personal stuff while at work (e.g. we can think of our list of grocery shopping and the empty fridge while at the office). People do not live in separate silos. A problem in work–life balance can appear when there is a

lack of control between both spheres (i.e. when people are overwhelmed by work-related thoughts during their personal time, to the extent that they are not enjoying it, or, conversely, when they are overwhelmed by personal thoughts while at work, to the extent that they cannot achieve their work tasks). Workaholism, which we discussed previously, can generate such a situation. Work–life balance can also be assessed using some questionnaires. For instance, the Canadian Mental Health Association provides a "work–life balance quiz" on their website,[6] acknowledging that it is not a scientific test. Occupational therapist Kathleen Matsuka has developed a questionnaire called the Life Balance Inventory, which has been tested psychometrically.[7] The concept of life balance is, however, a bit broader than just work–life balance. Matsuka defines it as "*a satisfying pattern of daily activity that is healthful, meaningful, and sustainable to an individual within the context of his or her current life circumstances*."

Basically, any concept could be assessed with a questionnaire. These may or may not be psychometrically reliable, or they may or may not be perfectly aligned with the dimension we are trying to assess while looking at psychosocial factors. The problem is that questionnaires may provide the false impression of reliability compared to qualitative assessments, with the underlying idea that any number is better than a subjective assessment, no matter how we reach that number, and what it corresponds to.

Tables 6 and 7 show long lists of parameters and dimensions to consider while assessing psychosocial factors. None of these lists are exhaustive. Even the strong Karasek and Siegrist models will assess a fraction of these factors. It is hence extremely important to have in mind that it's impossible to predict once and for all every single factor and parameter within this factor that will constitute a psychosocial hazard. Attempting to build up a fully exhaustive list of such factors is a useless quest. Some psychosocial hazards may well be located outside of screening lists.

All in all, if we want to have a global assessment of psychosocial factors, we must acknowledge that they should not be restricted to numbers, scores in questionnaires, and we also must acknowledge that they may not be fully exhaustive. If a model is used, one must recognize its limitations and understand what it captures (and what it does not capture).

---

6 Canadian Mental Health Association. *Work–life balance quiz.* Available from https://cmha.ca/find-info/mental-health/check-in-on-your-mental-health/work-life-balance-quiz (accessed on October 29, 2024).

7 Matuska K. Description and development of the life balance inventory. *OTJR: Occupational Therapy Journal of Research* 2012; 32(1): 220–228.

Is Facing the Public a Psychosocial Hazard? The Case of the French Employment Agency

Working with the public is often listed as a psychosocial hazard. "Facing the public" is one parameter to consider under "emotional demands" in the Gollac and Bodier classification. Direct contact with the public is considered as an organizational exposure in the French national survey on work conditions (Sumer). In 2017, 74% of all workers had direct contact with the public, and 49.9% mentioned that such contact was tense (even occasionally).[8] This last figure reached 63.6% for public servants.

It would be tempting to conclude that facing the public would be intrinsically a threat for workers. If we take the time to think about it, this is absolute nonsense. Being with others is what human beings are supposed to do. Work is a psychological activity that involves the presence of others, as we have previously discussed in the oriented activity theory of Yves Clot. Hence, it is not necessarily the sole fact of being in contact with the public that is the problem, but the way such contact happens. We may wrongly assume that removing the exposure to the public for workers is going to magically improve their working conditions. It is obviously a bit more complex than that.

One of the problems when working with the public is the occurrence of external violence. It is called external as opposed to internal violence, which may happen between coworkers inside a company. The story of the French unemployment agency is an illustration in this regard. There have been several publications on this.[9]

I am not losing track of the question of external violence at this point, but I need to back up a little bit and give you some context about how jobless people are compensated in France. We will then discuss the question of violence in unemployment agencies.

French people have a passion for merging and renaming their public agencies. It is like a hobby to them. The employment agency is an illustration of this. Since 2023, it has been called "*France Travail*." Before that, it was called "*Pôle Emploi*." The Pôle Emploi resulted from the merger of two different entities, completed in 2008 by Christine Lagarde (the president of the EU Central Bank, former president of the IMF, and Minister of Economy, Industry and Employment at that

8 Matinet B, Rosankis E. *Les expositions aux risques professionnels dans la fonction publique et le secteur privé en 2017*. Synthèse Stat n. 31. Available from https://dares.travail-emploi.gouv.fr/sites/default/files/pdf/synthese_stat__expositions__risques_professionnelles_fonctions_publiques.pdf (accessed on October 29, 2024).

9 For instance: Guiselin G and Rossigneux A. Confessions d'une taupe à Pôle Emploi. 2010. Paris. Editions Calmann-Lévy.

time), called the Assédic (created in 1958) and the Agence Nationale Pour l'Emploi (ANPE) (created by Jacques Chirac, the former President of France, when he was Secretary of State in charge of employment in 1967). The sequence is then:

$$\text{ANPE}\,(1967) + \text{Assédic}\,(1958) \rightarrow \text{Pôle Emploi}\,(2008) \rightarrow \text{France Travail}\,(2023)$$

What were the Assédic and the ANPE? The Assédic (*Association pour l'emploi dans l'industrie et le commerce*) was the French institution in charge of calculating and paying the compensation provided for workers who suddenly lost their job. The ANPE was the placement agency, which was supposed to help jobless individuals find a new job. If you allow me to be a bit simplistic, on the one hand, you had an agency providing calculation services, requiring the type of skills an accountant has. On the other hand, you had another agency providing vocational services, requiring the type of skills a counselor or a psychologist has. Workers who just lost their job had to go to these two different agencies to be able to get their compensation.

For many years, the idea of a punitive approach to joblessness compensation has grown.[10] Jobless people would be entitled to receive compensation only if they are deemed serious enough in finding a new job (no matter that they themselves have paid towards the compensation system when they were working). Those giving compensation cheques should be those offering jobs, thus ensuring better control over the unemployed. The merger was a step forward in this vision, that is still up-to-date nowadays.

This merger was presented to the public a little bit differently. It was a "common sense" measure for President Nicolas Sarkozy. Indeed, why do jobless people have to go to two different offices when they lose their job? It is so cumbersome. Let's merge the ANPE and the Assédic to make everyone's lives easier.

There was less than a year between the adoption of the law enacting the fusion of both agencies and its implementation. The first Pôle Emploi offices opened on January 5, 2009, with the promise of a better service, thanks to a lower number of job applicants per staff. First, the staff had to grasp all the new aspects of their work: those dealing with compensation had to learn quickly how to do career counseling, and vice versa. Everyone was expected to have interchangeable skills.

Then, the promise of a great job applicant–staff ratio quickly vanished. Indeed, the job market at that time was not great. From a low of 7.5% in the first quarter of 2008, the unemployment rate rose to 9.5% in the last quarter of 2009. In other words, unemployment skyrocketed at the very time of this merger. The conditions for a successful merger were just not there. This adds to the reinforcement of a

10 Pillon JM and Vivés C. La fusion de l'ANPE et des Assédic. Créer un nouveau métier sans penser le travail. *Politix* 2018; 124(4): 33–58.

punitive approach towards jobless people, which Pôle Emploi workers had no choice but to deal with (no matter their empathy).

Subsequently, the quality of the service has degraded considerably. In this context, external violence increased. The Pôle Emploi agency of Parthenay decided to hire security guards after a Pôle Emploi worker was attacked by a job seeker in March 2009.[11] The advisor ended up with a broken knee. In October 2009, a jobless person who yelled "*incompetent, lazy, useless*" at Pôle Emploi workers was sued and appeared in court in November 2011.[12] One of the most dramatic events happened in 2013: a 43-year-old person set himself on fire in front of the Pôle Emploi agency in Nantes.[13] He disagreed over his compensation being cut, considering he had worked enough to receive his compensation. He announced his intention to commit suicide: the police tried to reach out to him, unsuccessfully. The agency was under surveillance, but the job seeker, already on fire, arrived by a side path that was not under surveillance.

Are Security Guards and "Zero Tolerance Policy" Posters Preventing Psychosocial Risks?

These are just individual stories, reflecting an increased violence for both workers and the population served, where organizational changes have played a role. In this context, looking at external violence alone is not helpful, if we do not look at the organization as a whole at the same time. Bringing in security guards is not going to have any meaningful impact on the advisors' work activity that has been disrupted with the reorganization. It is not going to change the fact that they are there to enact an increasingly punitive approach towards unemployment. No one cares that it does not match their values or the reasons they have decided to work to help unemployed people in the first place. Bringing in security guards is not going to help workers get better information about their compensation once they lose their job. It is just going to add up to the already stressful experience of losing a job. Besides, the institution looking after unemployed people must know, more than anyone else, that this is a period in anyone's life of great vulnerability.

---

11 Le Figaro. *Agression dans une agence Pôle Emploi*. Available from https://www.lefigaro.fr/flash-actu/2009/03/12/01011-20090312FILWWW00755-agression-dans-une-agence-pole-emploi.php (accessed on November 6, 2024).

12 L'Humanité. *Pôle Emploi traîne un chômeur devant le tribunal*. Available from https://www.humanite.fr/social-et-economie/-/pole-emploi-traine-un-chomeur-devant-le-tribunal (accessed on November 6, 2024).

13 Le Monde. *Suicide d'un chômeur à Pôle Emploi: « un drame personnel » juge Hollande*. Available from https://www.lemonde.fr/societe/article/2013/02/13/un-homme-s-immole-par-le-feu-devant-pole-emploi-a-nantes_1832062_3224.html (accessed on November 6, 2024).

Empathy, understanding, compassion are definitely needed. Bringing in security guards gives to an organization the false impression of doing "something" instead of tackling terrible managerial decisions. It has the exact same effect as the "zero tolerance policy" posters (i.e. none).

The focus on external violence is then, quite often, a red herring while assessing psychosocial hazards. While unfolding the story of Pôle Emploi, which can resemble many other similar mergers, we find a huge variety of other psychosocial factors: quantitative targets and difficulties meeting them, being overwhelmed, not having the time to successfully complete the tasks, regular contact with distressed individuals (being more distressed as the quality of service goes down), ethical conflicts.... External violence is likely more a consequence than a cause of psychosocial hazards.

This single example illustrates the complexity of categorizing psychosocial hazards. If you look at a report on a number of external violence events, a simple number or ratio cannot convey the many other factors at play. Then, referring to the external violence rather than the organizational issues or the inadequate means provided to workers is a very effective way for organizations to displace the problem. The problem is not a poorly completed restructuring. The problem is this population of crazy aggressive clients. Coming up with the comfortable claim that "violence is unacceptable" will certainly not help anyone make significant progress. On the contrary, such statements have the effect of protecting the organization against anyone willing to question it, as it paralyzes the discussion. There is violence: this must stop, no matter what, because violence is intrinsically unacceptable. There is no need to go further. This narrative is easier to buy by anyone, relative to the complexity of the many factors at play. The reality is that, even if violence is unacceptable, it can have rational determinants on which an organization is not entirely powerless.

Psychosocial Hazards Are Not Like Toxic Clouds Poisoning Workers

At this stage, you should better understand the many limitations we have while using a checklist of psychosocial factors to review. There is still one more limitation to review here, which pertains to the "exposure–outcome" approach of psychosocial risks. In Figure 8 I represented the connections between psychosocial hazards and risks in a very simplistic fashion. While being exposed to psychosocial hazards, one can develop psychosocial risks. This approach has the benefit of mirroring the typical approach of occupational hazards and risks, used for physical or chemical risks in the workplace. For instance, being exposed to asbestos (an occupational hazard), you can develop a mesothelioma (an occupational risk).

However, this "exposure–outcome" model does not work perfectly when it comes to work-related mental health issues. Ergonomist François Daniellou has talked about the fallacy of considering that psychosocial hazards would constitute a "toxic cloud," which would affect a number of susceptible workers in a given working environment.[14] The issue here is that workers are not passively exposed to psychosocial hazards, contrary to chemical substances. The worker's *real* activity must be taken into consideration. What constitutes a problem for a given worker may be a resource for another one (while the asbestos fiber will be carcinogenic to everyone): not everyone will deal with ethical conflicts in the same way within an organization for instance. Not everyone thinks that being surrounded by colleagues constitutes a psychosocial resource, as opposed to a stressor (you remember the story of John, our truck driver redeployed to an office position).

The classifications we have reviewed are helpful if we see them as ways to assess some of the many dimensions at play in workplaces. These can become a deleterious tool if used as a checklist, or worse, with scores and comparisons to averages. We have previously discussed the limitations of quantitative approaches in occupational health.[15] There is no interest in being happy with great average scores in mental health scales in a group of workers, if there is a single worker whose working conditions are driving them to suicide. We can try to make outliers disappear in average numbers and quantitative assessments, but the risk is to mask the complex reality that psychosocial risks are unlikely to affect each single worker equally within a group. Said otherwise, some working organizations may arrange work in such a way that one single worker will end up having twice as much work as the others, with defective tools, no social support, within a larger group that is totally satisfied with their working conditions. Do not forget the outliers: these are precisely the ones that may commit suicide because of their work. And being an outlier is not necessarily and exclusively to be related to personal vulnerability factors. It's not because the vast majority of workers have no mental health problems that your work organization is perfect for the tiny minority.

When it comes to assessing psychosocial risks in a workplace, it is challenging to do it properly without looking at the micro-level, where critical elements may be diluted in larger-scale approaches.

---

14 Clot Y. Le travail à cœur, pour en finir avec les risques psychosociaux. 2010. Paris. Editions La Decouverte.

15 See Chapter 4, and the reference to the contributions of Jacques Malchaire.

Part III

Solutions: How Can We Put an End to Psychosocial Risks in the Workplace?

9

Positive Psychology in Workplaces

As we are diving into the last chapters of this book, it is time to start discussing solutions. The things we must do so workplaces are less stressful. But also, the things that maybe we should not do. As such, positive psychology methods deserve a specific chapter. Let us see why.

A New Trend That's Not New

Some of you might be unclear as to what positive psychology is. Think of mindfulness workshops or training sessions to improve worker resilience as examples of typical positive psychology tools.

Martin Seligman and Mihaly Csikszentmihalyi have defined positive psychology as a reaction against the dominant models centered on diseases, conditions, illnesses: in short, the bad side of health.[1] This is how they defined positive psychology in a paper published in 2000:

> *The field of positive psychology at the subjective level is about valued subjective experiences: well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present). At the individual level, it is about positive individual traits: the capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future mindedness, spirituality, high talent, and wisdom. At the group level, it is about the civic virtues and the*

1 Seligman M and Csikszentmihalyi M. Positive psychology: an introduction. *American Psychologist* 2000; 55(1): 5–14.

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition. Quentin Durand-Moreau.

> *institutions that move individuals toward better citizenship: responsibility, nurturance, altruism, civility, moderation, tolerance, and work ethic.*

Positive psychology is considered by some authors to be quite a recent subspecialty in the academic field of psychology. This is quite controversial. Some authors consider that positive psychology is far from being recent.[2]

The newness of the connections between positive psychology principles and work or organizational psychology is similarly controversial. Certain authors claim that positive organizational psychology emerged in the mid-2000s as an individual academic field,[3] focusing on "*investigating positive states, traits, behaviors and experiences of the working population and organizations as a means to improve the effectiveness and quality of organizational life*."

However, looking at old publications, I am skeptical about the alleged newness of positive psychology tools and methods in the field of prevention of work-related stress. Back in the 1950s, neurology professor René Bize (1901–1991) and psychologist Pierre Goguelin (1922–2003) published a book whose title could be translated as "Overwhelmed managers" (*Le surmenage des dirigeants*).[4] As it happens, I own a copy of its third edition, published in 1961. This short book provides managers, leaders, and CEOs with self-education tips to deal with their own work-related stress. The authors list causes of stress, including "*abusive fiscal measures*,"[5] the "*increased interference of the government in all domains*."[6] Remediation methods to be less stressed out include better eating habits (e.g. the authors kindly provide extensive tables providing protein rates for various items), recommendations for physical activity (including breathing exercises first, followed by resistance training, "complex movements," and stretching). An extensive list of the best spa treatment centers (*cures thermales*) is provided, with details on the composition of the water (in terms of iron, magnesium, chloride, etc.) and on the ailments that are (supposedly) treated. The use of a spa treatment center is nowadays clearly considered non-evidence-based. But even prior to the 1950s, there was already some controversy in this practice.[7]

---

2 Taylor E. Positive psychology and humanistic psychology: a reply to Seligman. *Journal of Humanistic Psychology* 2001; 41(1): 13–29.

3 Van Zyl L, Dik BJ, Donaldson SI et al. Positive organisational psychology 2.0: embracing the technological revolution. *The Journal of Positive Psychology* 2024; 19(4): 699–711.

4 Bize R and Goguelin P. Le surmenage des dirigeants. 3rd Edition. 1961. Paris. Les éditions de l'entreprise moderne.

5 « *Une fiscalité de plus en plus inquisitrice et abusive* » (page 14).

6 « *L'ingérance de plus en plus grande, et dans tous les domaines, de l'État* » (page 14).

7 For instance, one can read the 1887 novel by Guy de Maupassant called *Mont-Oriol*, a story that takes place in a fictional spa treatment center. In this book from the late nineteenth century, Maupassant describes spa treatment center physicians as quacks, and is mocking their dosages of water calculated in quarters of glasses to drink daily, and duration of baths, based on no clear rationale. Basically, Maupassant – although he was a frequent user of spa treatment centers at the end of his life, to treat his syphilis (at a time when penicillin was not yet available) – was quite suspicious and mocked the relevance of this treatment. More than 50 years prior to Bize and Goguelin's first edition of their book being released.

It is extremely interesting to note that, already back in the 1950s, relaxation was recommended according to techniques provided by the best yogis. Mindfulness, which was popularized afterwards, is also based on Buddhist principles.

All in all, the book by Bize and Goguelin provides no significant insight on workplace conditions. What is most interesting is to identify how individual-based approaches were already used back in the 1950s, and how these are still being used by certain stress experts nowadays. There are many books currently sold at your favorite bookstore that have similar content, providing individual-based advice, or self-education tips to be less stressed at work. There are a lot of similarities between what Bize and Goguelin wrote, back in the 1950s, and some principles of positive psychology. It is therefore quite difficult to look at positive organizational psychology and be impressed by how innovative this approach would be.

Positive psychology at work, or positive organizational psychology (POP), has six characteristics:

1) *To study subjective positive experience*.
2) *To understand positive states, traits, and behaviors*.
3) *To investigate the elements underpinning the optimal functioning of individuals, groups, and organizations*.
4) *To measure and manage psychosocial wellbeing*.
5) *To eventually build healthy and thriving organizations*.
6) *To measure positive psychological phenomena, clearly interpreting results, developing strategies to enhance positive functioning, and creating evidence-based intervention strategies to help facilitate individual wellbeing and organizational flourishing*.

Positive Psychology, Capitalism, Individualism, and Ableism

Positive organizational psychology not only looks like a politically situated approach, but it is clearly designed as such. The words of van Zyl and colleagues do not leave much room for ambiguity:

> *The rise of neo-liberal ideology in Western societies, which emphasises happiness, individualism, and self-improvement, aligns with the core principles of POP.*

Surprisingly (or not), the same authors list that "*perceived capitalistic influence*" is a criticism formulated against POP:

> *Some critics suggest that positive organizational psychology can be driven by capitalist motives, aiming to commodify positivity and promote individualistic and consumeristic value within organisational settings. They*

> *raise concerns about the potential commercialisation of positive practices and experiences, which may undermine the genuine wellbeing and flourishing of individuals and organisations.*

It is a bit of a relief that some academic leaders in POP are somewhat self-conscious of the problem they have with neo-liberalism and capitalism being aligned with their academic field. However, it does not change much the intrinsic nature of their approach, which is skewed from the start, and basically appears as a tool aiming to protect organizations first and ask individuals to make efforts (e.g. being trained for resilience) to deal with these.

This is where it is extremely important to understand a critical piece in occupational health ethics. We have to adjust workstations to the worker. We do not have to adjust workers to the workstation. These two statements are fundamentally different.

This obligation to adjust the work to the worker is enacted in European legislation. Therefore, it is not just a vague idea. It is the law. The 89/391/EEC – OSH "Framework Directive" provides nine general principles of prevention,[8] which must be followed in the order they are listed (see Table 8).

The US National Institute for Occupational Safety and Health (NIOSH) has provided a comparable framework, called the hierarchy of controls[9] (see Table 9). It is critical to have in mind that it is not merely a shopping list of principles from which you can just pick and choose: each of the five elements of the hierarchy of

Table 8 General principles of prevention

1. Avoiding risks
2. Evaluating risks
3. Combatting risks at source
4. Adapting the work to the individual
5. Adapting to technical progress
6. Replacing the dangerous by the non- or less dangerous
7. Developing a coherent overall prevention policy
8. Prioritizing collective measures (over individual protective measures)
9. Giving appropriate instructions to workers

8 European Agency for Safety and Health at Work. *Directive 89/397/EEC – OSH « Framework Directive » of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work*. Available from https://osha.europa.eu/en/legislation/directives/the-osh-framework-directive/1 (accessed on October 15, 2024).

9 National Institute for Occupational Safety and Health. *About hierarchy of controls*. Available from https://www.cdc.gov/niosh/hierarchy-of-controls/about (accessed on October 15, 2024).

Table 9 Hierarchy of controls (NIOSH)

1. Elimination: physically remove the hazard
2. Substitution: replace the hazard
3. Engineering controls: isolate people from the hazard
4. Administrative controls: change the way people work
5. PPE (personal protective equipment): protect the worker with PPE

controls come in a specific order, from the most effective to the least effective. In the expression "hierarchy of controls," some people are tempted to overlook the word "hierarchy." This comes with the trend in developing comprehensive or holistic models in preventing occupational risks, and psychosocial risks in particular, where every level of action – whether we are dealing with individual-based, or system-based approaches – are put on the same level. This is in contradiction to the structured and hierarchical approaches that have constituted gold-standard methods in occupational health prevention for decades.

Deferring on individual-based approaches (also called *worker-directed* approaches) raises ethical and conceptual problems, regardless of their measured effectiveness. A number of positive psychology methods are individual-based, aimed at equipping individuals with skills so they can navigate a difficult working environment that no one is looking to improve. Enhancing resilience is aligned with this vision of something individual-based, in the context of a working environment that we would consider impossible to change. Conceptually, this type of approach is similar to the provision of personal protective equipment (PPE). Whether we look at the EU hierarchy of controls or the US hierarchy of controls, PPE should come last, once collective improvements of workplaces have been – at the very least – seriously considered.

The International Commission on Occupational Health (ICOH) publishes a code of ethics for occupational health professionals. The latest version was released in 2014.[10] The first article of the introduction to the code reads as follows:

> *The aim of occupational health practice is to protect and promote workers' health, to sustain and improve their working capacity and ability, to contribute to the establishment and maintenance of a safe and healthy working environment for all, as well as to promote the adaptation of work to the capabilities of workers, taking into account their state of health.*

10 International Commission on Occupational Health. *International code of ethics for occupational health professionals 2014* (3rd Ed.). Available from http://www.icohweb.org/site/multimedia/code_of_ethics/code-of-ethics-en.pdf (accessed on October 15, 2024).

The last part of this sentence is important: adapting work to the workers. It is this way. It is not about adjusting workers to workplaces. Hence, asking workers to adjust to their workplace conditions raises the concern of promoting an ableist bias, meaning that we would perceive the world from the standpoint of someone without any disability. It is easy to ask people to adjust to workplaces, thought to be adjusted for "most workers" or for the fictional "standard worker." A little training and a little effort from workers would close the gap. No need to invest money to adjust for this one worker who does not see well, or that one who does not hear perfectly, or that one who struggles with mental health issues. Besides, such costly investments will never generate value added (and profit) for the business. Why bother, as a little training workshop will suffice?

We need to shift the mindset. It is for workplaces to be adjusted to workers with their health issues. We have normalized the delusional idea that people must comply with organizations, as if these were not created and sustained by humans, as if they were not modifiable. Protecting the organization ends up being more important than protecting the individuals. We have been accustomed to that ridiculous idea. It should not be on workers to adjust to workplaces. It is a matter of ethical principles. Workers are entitled to accommodation in many jurisdictions. It is what we call in Canada a duty to accommodate up to undue hardship.

POP is also rising because of "*increased acceptance and implementation*"[11] from multinational consulting firms. The popularity of such consultancy groups is heavily dependent on conclusions that are rarely extremely hurtful for the payers. Assessing the usefulness of a method based on its popularity is as relevant as measuring the efficacy of homeopathy based on the volume of sales. In other words, there is no connection between efficacy and popularity, especially when it pertains to labor relationships that are tripartite by nature.[12]

A Systematic Review Showing Underwhelming Evidence

Mindfulness-based practices are one of the typical interventions used in the field of positive psychology. Biologist and emeritus professor Jon Kabat-Zinn has defined mindfulness as "*the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience*

11 Van Zyl L, Dik BJ, Donaldson SI et al. Positive organisational psychology 2.0: embracing the technological revolution. *The Journal of Positive Psychology* 2024; 19(4): 699–711.

12 As outlined in Chapter 2, tripartism refers to a system that includes representatives of employers, workers, and governments. At this point, this is where you really need to understand the importance of developing the notions of work, labor, employment, and the diverging interests between all.

moment by moment."[13] Mindfulness is a state of mind, an objective to reach. To reach that objective, we can use specific interventions among the many that exist. The most well-known are MBSR (mindfulness-based stress reduction) and MBCT (mindfulness-based cognitive therapy). However, some authors have listed more than 50 different mindfulness-based programs, used for specific purposes or specific populations.[14] In particular, such interventions have been used to treat mental health disorders, such as anxiety, bipolar disorders, or depression.

Mindfulness-based programs share several core requirements.[15] They are based on contemplative traditions or the Buddhist tradition and cognitive neurosciences. They help individuals focus on the present moment and decenter. They aim at supporting the development of greater attentional, emotional, and behavioral self-regulation, as well as positive qualities (compassion, wisdom...). Mindfulness-based programs engage participants in intensive training, including meditation practice.

I have been willing to ascertain whether mindfulness-based practices would be helpful in addressing mental-health conditions presented by workers. To do so, I coordinated a systematic review:[16] we looked at several databases to find relevant papers for our research question. Our inclusion criteria were quite open: we considered any intervention using mindfulness techniques exclusively or as part of a larger intervention, we included workers whether they were employed part-time or full-time. We had no geographic restrictions: study participants could come from anywhere.

However, two conditions were very important for us.

The first one was to have clear diagnoses, meeting criteria from the International Classification of Diseases (ICD) from the WHO, or the Diagnostic and Statistical Manual of mental disorders (DSM) from the American Psychiatric Association. We were interested in the effect of such techniques in treating conditions such as depression or PTSD, rather than dealing with concepts that are less clear to grasp from a clinical perspective, such as "stress" or burnout.

The second condition was that we were willing to have a relevant comparator. Think of it exactly as if we were doing a pharmacological trial: if we want to see whether a new medication helps treat a condition, we want to compare a group of

13 Kabat-Zinn J. Mindfulness-based interventions in context: past, present, and future. *Clinical Psychology: Science and Practice* 2003; 10(2): 144–156.

14 Galante J, Friedrich C, Dawson AF et al. Mindfulness-based programmes for mental health promotion in adults in nonclinical settings: a systematic review and meta-analysis of randomised controlled trials. *PLoS Medicine* 2021; 18(1): e1003481.

15 Crane RS, Brewer J, Feldman C et al. What defines mindfulness-based programs? The warp and the weft. *Psychological Medicine* 2017; 47(6): 990–999.

16 Durand-Moreau Q, Jackson T, Deibert D et al. Mindfulness-based practices in workers to address mental health conditions: a systematic review. *Safety and Health at Work* 2023; 14(3): 250–258.

people taking it to another group of people taking a placebo. The idea is not that different when it comes to work-related mental health research.

We included studies where there were at least two groups: a group of patients with the mindfulness intervention and a group of patients with an intervention without mindfulness. There are many studies where there is no comparator at all, so it is impossible to be sure that the measured effect is related to the intervention. In fact, the sole presence of a researcher within a working environment is likely to skew the results of an intervention, regardless of the intervention itself.

This was described decades ago and has historically been called the *Hawthorne effect*.[17] Gustav Wickström and Tom Bendix, two physicians respectively from Finland and Denmark, published a very useful review, presenting the history and the issues with the Hawthorne effect.[18] Between 1927 and 1933, notoriously well-known research projects were conducted in the Western Electric Company, in Chicago (Illinois, USA) involving psychologist and sociologist Elton Mayo (1880–1949). Particularly, an experiment was conducted to assess the influence of lighting conditions (or illumination) on productivity. It consisted of assessing the productivity of two groups of workers, one receiving standard and constant illumination (the control group) and the other receiving decreased light (the intervention or experimental group). One could expect that the better the light, the more productive the workers would be. Hence, we could have anticipated that in the intervention group, the productivity would decrease as the workers would have decreased light to accomplish their tasks. This is not quite what the experiment showed. In fact, up to a certain point, the productivity increased in both groups, which means that even in the group where the light is decreased, the productivity went up. The productivity stopped increasing in the intervention group only when "*illumination in the experimental room was reduced to a level corresponding to moonlight that the experimental subjects started to complain that they could hardly see what they were doing*."[19] This experiment is traditionally used to demonstrate the influence of researchers and the protocol itself on the results. The expression "Hawthorne effect" appeared later, in 1953, "*corresponding to a marked increase in production related only to special social position and social treatment*."

Since the 1920s and the 1930s, criticism has emerged against this experiment, as with several key historical experiments in social psychology (remember the Stanford experiment and its criticism we discussed previously). Wickström and Bendix suggested considering several elements that may occur within the

17 Wickström G and Bendix T. The "Hawthorne effect" – what did the original Hawthorne studies actually show? *Scandinavian Journal of Work, Environment & Health* 2000; 26(4): 363–367.
18 Ibid.
19 Ibid.

experimental setting of the Western Electric Company, which may have had a direct effect on measurable outcomes:

1) *Relief from harsh supervision*.
2) *Receiving positive attention*.
3) *Learning new ways of interaction*.
4) *Possibilities to influence work procedures*.
5) *Rest pauses*.
6) *Higher income*.
7) *Threat of losing one's job*.

In this context, it seemed reasonable to compare an intervention (mindfulness) to another intervention (non-mindfulness), so we were sure that we were assessing the efficacy of mindfulness itself.

We were also willing to exclude studies using a waitlist-only control group. You have two groups of workers: one has the intervention and the other has nothing, but they are told that "later on" they will benefit from an intervention. In real life, such a design is likely to skew the perception of the intervention. Workers included in the waitlist group may feel disadvantaged, which is likely to influence the evaluation of the measured outcome and artificially increase the gap between both groups. Let's say you have a group that benefits from an intervention that is favorable for their mental health, and the other is told that they would have something later. Those in the waitlist group may perceive their situation as less favorable than it is, given the unfairness of having no intervention (i.e. maybe no group sessions during work hours, with no work to complete, kind researchers and snacks provided...). Unfortunately, designs with waitlist only as a control group are very common. Out of the 202 studies we included in our review, we had to exclude 58 of them (29%) as they had such a comparator.

We ended up finding only two studies meeting our criteria. These used acceptance and commitment therapy (ACT) and MBCT. These mindfulness-based practices did not show durable and substantial improvement of mental health in workers diagnosed with a mental health condition.

The Problem of Researcher Allegiance

Another issue with research in mindfulness-based practices resides in potential conflicts of interest and the notion of *researcher allegiance*.[20] The notion of allegiance is not new in the field of psychotherapy and appeared in 1975. It has been

20 Leykin Y and DeRubeis RJ. Allegiance in psychotherapy outcome research: separating association from bias. *Clinical Psychology: Science and Practice* 2009; 16(1): 54–65.

described as "*the belief in the superiority of a treatment and the superior validity of the theory of change that is associated with the treatment*." Anyone who conducts an intervention in their daily practice (whether it is mindfulness or something else) and conducts research on this very type of intervention (e.g. someone who has a clinical practice involving mindfulness-based practices, involved in a research assessing the effect of mindfulness-based practices on mental health) is prone to bias: they may be tempted to think that positive effects observed are related to the intervention.

Levels of researcher allegiance can be measured. Researchers Simon Goldberg from the University of Wisconsin at Madison and Raymond Tucker from the Louisiana State University have studied this phenomenon specifically in the field of mindfulness-based interventions used for psychiatric disorders.[21] They have re-analyzed data from one of their previous systematic reviews, including 58 studies, to investigate researcher allegiance. They have used a grid of seven criteria to assess it (including items such as advocacy for the method, authors' reputation as experts in treatment, differences in time spent face-to-face between the mindfulness method and the control method...). They have found that researcher allegiance skewed the results of mindfulness-based interventions and artificially increased the difference with the comparator group. Goldberg and Tucker note that their re-analysis "*does not, however, suggest that mindfulness-based interventions are not effective treatments, rather that they are simply not more effective than other therapies when researcher allegiance is accounted for*."

The problem of researcher allegiance in mindfulness research raises the more general question of conflicts of interest in research. This is a complex question. Dismissing conflicts of interest raises the risk of giving credit to biased research. For instance, my colleagues Laetitia Rollin and Jean-François Gehanno, two professors of occupational medicine at Rouen University Hospital in France, have shown that publicly funded research is more likely to find an excess of cancer in exposed workers compared to industry-funded research.[22] Conflicts of interest influence the results of research. The same applies in mindfulness research. Someone who has a direct financial interest in conducting mindfulness-based research is unlikely to publish papers demonstrating that it is ineffective.

On the other hand, it is legitimate for mindfulness practitioners to participate in research protocols assessing the efficacy of the tools they use in their daily practice. Furthermore, this is likely to demonstrate that the practitioner is willing to

21 Goldberg SB and Tucker RP. Allegiance effects in mindfulness-based interventions for psychiatric disorders: a meta-re-analysis. *Psychotherapy Research* 2020; 30(6): 753–762.
22 Rollin L, Griffon N, Darmoni SJ, and Gehanno JF. Influence of author's affiliation and funding sources on the results of cohort studies on occupational cancer. *American Journal of Industrial Medicine* 2016; 59(3): 221–226.

engage in an evidence-based approach, which may reflect better professional insight than practitioners who use tools that are not properly evaluated.

Hence, I am far from saying that we should necessarily discard any research conducted on mindfulness by mindfulness practitioners. However, it seems that their involvement in such research has an influence. Therefore, the only way to address this will be to make sure that researcher allegiance is taken into account while looking at the effectiveness of such methods, and that researchers are as transparent as possible.

There may now be a decline of interest in positive psychology. Van Zyl indicates a dramatic drop in citations of such publications, from more than 30 citations by paper in 2012 to a bit more than 1 per paper in 2020.[23] It may be because it gets harder and harder to get workers engaged in mandatory mindfulness workshops prior to their 12-hour shifts, and make them believe that it will substantially improve their working conditions.

23 Van Zyl L, Dik BJ, Donaldson SI et al. Positive organisational psychology 2.0: embracing the technological revolution. *The Journal of Positive Psychology* 2024; 19(4): 699–711.

10

What Should We Do to Make Workplaces Less Stressful?

We have seen that positive psychology methods are far from being a magic cure. In the meantime, psychosocial risks, albeit not a new phenomenon at all, are likely on the rise. Hence, there is a need for action. In 2024, the US National Institute for Occupational Safety and Health (NIOSH), under the leadership of Paul Schulte, released an urgent call to address psychosocial hazards and improve worker wellbeing, which suggests that (1) this is a critical issue and (2) this issue is not sufficiently addressed at the moment in the United States.[1]

What's the Evidence Behind Interventions on Psychosocial Risks?

It is difficult to apprehend the question of "what to do" without looking at the available evidence of interventions aimed at preventing psychosocial risks. In this regard, there have been many publications, as well as systematic reviews. Reiner Rugulies, professor of psychosocial work environment and health in Denmark, with a group of colleagues, has summarized the research evidence from workplace intervention studies in an important review paper published in *The Lancet* in 2023.[2] They separated the types of interventions into two categories:

1 Schulte PA, Sauter SL, Pandalai SP et al. An urgent call to address work-related psychosocial hazards and improve worker well-being. *American Journal of Industrial Medicine* 2024; 67(6): 499–514.
2 Rugulies R, Aust B, Greiner BA et al. Work-related causes of mental health conditions and interventions for their improvement in workplaces. *The Lancet* 2023; 402(10410): 1368–1381. doi: 10.1016/S0140-6736(23)00869-3. PMID: 37838442.

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition. Quentin Durand-Moreau.

- *Work-directed* approaches, also called organizational approaches, aimed at improving working conditions, and the organization of work.
- *Worker-directed* approaches, also called individual approaches, aimed at improving the individual workers' competencies, knowledge, and strengths to cope with working conditions. Positive psychology methods would fall under this category.

Reiner Rugulies and his colleagues have indicated that a lot of research has focused on improving job control, one of the elements of the Karasek model we previously reviewed. Increasing workers' job control through problem-solving groups or increasing workers' control of their shift schedules improves their mental health. The evidence is poor when it comes to manager and leadership training, aimed at increasing knowledge, or changing attitudes.

The NIOSH has determined that organizational interventions can be effective in promoting positive and healthy work.[3] They have noted that many workplace health promotion programs tend to focus on individual approaches to managing psychosocial hazards. There is little research available comparing the effect of stress management interventions at the individual and organizational levels. The effects of individual-level interventions have been reported to often be short-lived, or with a paucity of data on their long-term effect.

Several Cochrane reviews pertaining to the prevention of psychosocial risks have been published. Cochrane reviews are systematic reviews,[4] usually considered of good quality. This is because these reviews need to follow many requirements, outlined in detail in the *Cochrane handbook*.[5] This compliance can be seen as a quality control in some ways. In the Cochrane collaboration, a group is dedicated to reviews about occupational safety and health, called "Cochrane work."[6] Table 10 presents a summary of the conclusions of Cochrane reviews related to the prevention of psychosocial risks in workers.

These Cochrane reviews do not provide spectacular results. Most of the evidence is of low quality. Long-term effects of interventions are rarely assessed. Some tend to be positive (e.g. flexible working interventions that increase worker control and choice, individual-based interventions in law enforcement officers...). Some tend to be negative or useless (e.g. single-session individual psychological

3 Ibid.

4 I have explained what a systematic review is in the previous chapter, using an example of our own publications.

5 *Cochrane handbook for systematic reviews of interventions*. Available from https://training.cochrane.org/handbook (accessed on November 14, 2024).

6 The list of Cochrane reviews on occupational safety and health is available at https://work.cochrane.org/cochrane-reviews-about-occupational-safety-and-health (accessed on November 14, 2024).

debriefing, education combined with training to prevent aggression of healthcare workers).

In the field of psychosocial risk prevention, one must be quite cautious when translating directly into practice the results of such research. First, some people might be tempted to use such low-quality evidence as an argument to do nothing, and not try to improve working conditions ("*we need more evidence*"). We need to keep in mind the many limitations we have already reviewed of quantification in this field. If quantifying psychosocial hazards and risks in a workplace comes with many problems, the same applies to assessing whether interventions are effective.

The gold standard in study design is usually the randomized control trial (RCT). However, Rugulies and colleagues consider that RCTs are more applicable to individual-level than organizational-level interventions.[7] They also pointed out that the focus on RCTs and meta-analyses may lead to an overuse of narrow worker-directed intervention approaches, and an underuse of more complex, resource- and time-intensive work-directed approaches. Interestingly, Johannes Siegrist and Jian Li have noted similar concerns while discussing workplace interventions aimed at facilitating the return to work of workers with mental health conditions:[8]

> *The main problem at large is not insufficient knowledge on how to intervene, but rather insufficient investments in the application of interventions in a broader context of secondary and tertiary prevention.*

The Problem with Non-hierarchized Comprehensive Approaches

Beyond methodological and study design considerations, there are ethical issues that cannot be dismissed. It is not because ethics is not a hard science that it should be a peripheral consideration when it comes to implementation. It should come first. We have already commented extensively on the ethical problems raised by interventions which would be restricted to the individual level. Of course, such

7 Rugulies R, Aust B, Greiner BA et al. Work-related causes of mental health conditions and interventions for their improvement in workplaces. *The Lancet* 2023; 402(10410): 1368–1381. doi: 10.1016/S0140-6736(23)00869-3. PMID: 37838442.

8 Siegrist J and Li J. Psychosocial occupational health: an interdisciplinary textbook. 2024. Oxford. Oxford University Press (p. 280).

Table 10 Summary of Cochrane reviews on the effectiveness of interventions in reducing psychosocial risks in workers

	To assess the effectiveness of...	Conclusions
Gillen et al. (2017)[9]	Workplace interventions to prevent bullying in the workplace	Very low-quality evidence that organizational and individual interventions may prevent bullying behaviors in the workplace
Geoffrion et al. (2020)[10]	Education and training to prevent workplace aggression towards healthcare workers	Education combined with training may not have an effect on workplace aggression directed towards healthcare workers
Kuehnl et al. (2019)[11]	Human resources management training for supervisors on employees' stress, absenteeism, and wellbeing	Inconsistent evidence that supervisor training may or may not improve employees' wellbeing, no evidence of a considerable effect
Kuster et al. (2017)[12]	Computer-based stress management tools compared to in-person	Very low-quality evidence with conflicting results
Tamminga et al. (2023)[13]	Stress-reduction interventions in healthcare workers	There may be an effect of individual-level stress interventions for up to a year after the end of the intervention
Nieuwenhuijsen et al. (2020)	Interventions aimed at reducing work disability in employees with depressive disorders	Combined work-directed and clinical interventions probably reduce the number of sick days, may reduce depressive symptoms, and probably increase work functioning

(*Continued*)

9 Gillen PA, Sinclair M, Kernohan W et al. Interventions for prevention of bullying in the workplace. *Cochrane Database of Systematic Reviews* 2017; 1(1): CD009778. doi: 10.1002/14651858.CD009778.pub2.

10 Geoffrion S, Hills DJ, Ross HM et al. Education and training for preventing and minimizing workplace aggression directed toward healthcare workers. *Cochrane Database of Systematic Reviews* 2020; 9(9): CD011860. doi: 10.1002/14651858.CD011860.pub2.

11 Kuehnl A, Seubert C, Rehfuess E et al. Human resource management training of supervisors for improving health and well-being of employees. *Cochrane Database of Systematic Reviews* 2019; 9(9): CD010905. doi: 10.1002/14651858.CD010905.pub2.

12 Kuster AT, Dalsbø TK, Luong Thanh BY et al. Computer-based versus in-person interventions for preventing and reducing stress in workers. *Cochrane Database of Systematic Reviews* 2017; 8(8): CD011899. doi: 10.1002/14651858.CD011899.pub2.

13 Tamminga SJ, Emal LM, Boschman JS et al. Individual-level interventions for reducing occupational stress in healthcare workers. *Cochrane Database of Systematic Reviews* 2023; 5(5): CD002892. doi: 10.1002/14651858.CD002892.pub6.

Table 10 (Continued)

	To assess the effectiveness of...	Conclusions
Naghieh et al. (2015)[14]	Organizational interventions for improving wellbeing and reducing work-related stress in teachers	Low-quality evidence that organizational interventions lead to improvements in teacher wellbeing
Spelten et al. (2020)[15]	Organizational interventions to prevent workplace aggression towards healthcare workers	Very low to low-quality evidence that interventions focused on the vector (pre-event, event phase, or both) may result in a reduction of overall aggression, inconsistent low-quality evidence of multi-component interventions
Joyce et al. (2010)[16]	Flexible working interventions on health and wellbeing of employees and their families	Suggests that flexible working interventions increasing worker control and choice (self-scheduling, gradual retirement...) are likely to have a positive effect. Interventions motivated by organizational interests found equivocal or negative health effects
Arends et al. (2012)[17]	Interventions facilitating return to work in workers with adjustment disorders	Low to moderate-quality evidence that cognitive behavioral therapy (CBT) did not reduce time until return to work. Moderate-quality evidence that problem-solving therapy (PST) enhanced partial return to work but not full time at one year follow-up

14 Naghieh A, Montgomery P, Bonell CP et al. Organisational interventions for improving wellbeing and reducing work-related stress in teachers. *Cochrane Database of Systematic Reviews* 2015; 4(4): CD010306. doi: 10.1002/14651858.CD010306.pub2.

15 Spelten E, Thomas B, O'Meara PF et al. Organisational interventions for preventing and minimising aggression directed towards healthcare workers by patients and patient advocates. *Cochrane Database of Systematic Reviews* 2020; 4(4): CD012662. doi: 10.1002/14651858.CD012662.pub2.

16 Joyce K, Pabayo R, Critchley JA, and Bambra C. Flexible working conditions and their effects on employee health and wellbeing. *Cochrane Database of Systematic Reviews* 2010; 2(2): CD008009. doi: 10.1002/14651858.CD008009.pub2.

17 Arends I, Bruinvels DJ, Rebergen DS et al. Interventions to facilitate return to work in adults with adjustment disorders. *Cochrane Database of Systematic Reviews* 2012; 12(12): CD006389. doi: 10.1002/14651858.CD006389.pub2.

Table 10 (Continued)

	To assess the effectiveness of...	Conclusions
Rose et al. (2002)[18]	Psychological debriefing for preventing post-traumatic stress disorder	No evidence that single-session individual psychological debriefing is useful. Compulsory debriefing of victims of trauma should cease
Tanja-Dijkstra and Pieterse (2011)[19]	Psychological effects of the physical healthcare environment on healthcare personnel	Insufficient evidence to support or refute the impact of the physical environment on work-related outcomes
Peñalba et al. (2008)[20]	Psychosocial interventions (individual-based) to prevent psychological disorders in law enforcement officers	Low-quality evidence suggesting that police officers benefit from psychosocial interventions in terms of psychological symptoms

ethical problems do not disappear magically when these interventions are diluted in the appealing "combined," "holistic," "comprehensive," or "integrated" interventions; despite the evidence of effectiveness of such combined interventions.

There is a very problematic disconnect between promoting a hierarchized approach to occupational hazards for all hazards, but when it comes to psychosocial hazards, a mixed individual and collective approach would be acceptable. I am unsure that there are other risks where one would find such a "holistic" approach acceptable. Think of asbestos exposure: do we really want to put the appropriate use of PPE by workers at the same level of importance as banning asbestos?

No, It's Not Okay Not to Be Okay

We should not rely on workers' suffering with work-related mental health problems to also be the ones initiating workplace changes. Mental ill-health takes a lot of one's resources. It is unfair to expect that those affected should also be the

18 Rose SC, Bisson J, Churchill R, and Wessely S. Psychological debriefing for preventing post traumatic stress disorder (PTSD). *Cochrane Database of Systematic Reviews* 2002; 2(2): CD000560. doi: 10.1002/14651858.CD000560.

19 Tanja-Dijkstra K and Pieterse ME. The psychological effects of the physical healthcare environment on healthcare personnel. *Cochrane Database of Systematic Reviews* 2011; 1(1): CD006210. doi: 10.1002/14651858.CD006210.pub3.

20 Peñalba V, McGuire H, and Leite JR. Psychosocial interventions for prevention of psychological disorders in law enforcement officers. *Cochrane Database of Systematic Reviews* 2008; 3(3): CD005601. doi: 10.1002/14651858.CD005601.pub2.

ones in charge of the many changes that are required in workplaces to improve the psychosocial environment. Contrary to the mainstream idea of normalizing mental health problems, and disclosing mental health issues publicly, some research has shown that workers can pay a hard price when they speak up.

Kim Janssens, a senior researcher at Tilburg University (The Netherlands) led a very informative study in 2021.[21] She and her team surveyed 670 line managers about their knowledge, attitudes, and experiences with applicants and employees suffering from mental health problems. They found that 64.4% of managers were reluctant to hire a job applicant currently struggling with a mental health problem, and 29.5% if the applicant had a past mental health problem. And this, even though only 7% of the managers reported negative experiences with such applicants, and 52% reported positive experiences. Managers reported concerns that they could not handle the work or that they would have long-term sickness absence.

Another interesting study on discrimination of workers with mental health problems was published in 2022, led by Lea Sell from the Department of Occupational and Environmental Health, Bispebjerg Hospital in Copenhagen (Denmark).[22] The research team looked at admissions to a hospital or psychiatric unit of patients presenting with concurrent substance-use and mental health disorders. For these patients, they looked at whether they have been able to work before and after their hospital stay. The rate of patients with combined mental health and addiction diagnoses being able to work after hospital discharge dropped significantly between 1996 and 2011. In 1996, 27.4% of such patients were able to work for at least a year between their release from hospital and three years afterwards, whereas in 2011 this proportion was 16.5%. This is almost half what it was 15 years before. Some reasons may explain this drop: perhaps admissions are now restricted to patients with the most severe conditions as the number of hospital beds has dropped during that period. However, the authors point out issues with a labor market that is less inclusive of workers with disabilities:

> *There is no doubt that the labor market plays an important role in reversing the present trend toward deteriorating mental health in the western populations in general. Not only by generating more job opportunities but also by*

21 Janssens KME, van Weeghel J, Dewa C et al. Line managers' hiring intentions regarding people with mental health problems: a cross-sectional study on workplace stigma. *Occupational and Environmental Medicine* 2021; 78: 593–599.

22 Sell L, Lund HL, and Johansen KS. Past, present, and future labor market participation among patients admitted to hospital with concurrent substance use and mental health disorder, and what we can learn from it. *Journal of Occupational and Environmental Medicine* 2022; 64(12): 1041–1045.

securing good working conditions and by providing relevant workplace accommodations for people with mental disorders.

The narrative around normalizing mental health problems should be applied with utmost caution. I would not encourage any worker to disclose their mental health problems in the absence of very strong evidence that they are not going to be discriminated against or face negative consequences. I encourage workers to keep their personal health information confidential: we never know whether such information will be used against workers.

A Growing International Normative Framework to Prevent Psychosocial Risks

All in all, durable prevention must rely not just on the goodwill of both parties (employers and workers). You might remember that we have previously explained that the International Labour Organization (ILO) is a tripartite agency. It brings together representatives of workers, employers, but also from governments.

If we leave occupational health matters in the sole hands of workers and employers' representatives, it is likely that very little progress will be made. Occupational health policies require a strong engagement from governments. This must translate into a normative framework (i.e. laws) and enforcement (i.e. inspections) to make sure that rules are applied correctly. Due to the nature of the subordination relationship, and because profit generation is the key element to conduct a business, it is impossible to believe that we can have durable occupational health prevention without delineating a protective framework for workers. Occupational health is never going to be the priority of employers. It is never going to be the priority of workers either. Profit generation and income considerations will take precedence over occupational health and safety. In such an imbalanced relationship, regulations are necessary to allow businesses to operate while workers are protected.

We tend to think that such restrictions would be a "cost" for companies, while it would reduce the overall systemic health costs of occupational health injuries and illnesses. Hence, it is critical to examine the role of all levels of government in the prevention of psychosocial risks.

Internationally, a very encouraging sign is the increased commitment of the ILO towards occupational health and safety, and particularly in the prevention of psychosocial risks in the workplace. The ILO has listed five fundamental principles and rights at work (Table 11). These are not just vague intentions: all of these

Table 11 The five ILO fundamental principles and rights at work as of 2024

1) Freedom of association and the effective recognition of the right to collective bargaining
2) The elimination of all forms of forced or compulsory labor
3) The effective abolition of child labor
4) The elimination of discrimination in respect of employment and occupation
5) A safe and healthy working environment

principles automatically apply to every ILO Member State. The last one was added in 2022: all workers now have an international and fundamental right to a safe and healthy working environment.

We have previously discussed the ILO Convention 190 on violence and harassment at work, which is also one of the latest international normative texts they released. These international texts are part of the law of ILO Member States, and we could expect these to percolate through all levels of jurisdiction.

National policies can have a powerful positive impact on organizational change, and on the prevention of psychosocial risks.[23] Unfortunately, to date, there is a lot of inequity across countries in this regard. The United States, for instance, lacks regulatory national policies targeting psychosocial risks, which triggered the previously mentioned publication from NIOSH. Some countries would require employers to manage psychosocial risks as they would do with any other occupational risk, without explicitly mentioning it.

On the other hand, the Working Environment Act which came into force in Denmark in 2020 indicates that it is always the employer's responsibility to organize the work so it can be carried out in a safe and healthy manner in relation to influences from the psychosocial working environment. Australia has legally binding workplace health and safety regulations explicitly for the prevention of psychosocial hazards in most jurisdictions.

Regulations come in addition to non-binding recommendations (or soft law), such as the International Organization for Standardization (ISO) standard 45003:2021 on occupational health and safety management (*Psychological health and safety at work, guidelines for managing psychosocial risks*).[24] Some countries also have some soft-law guidelines, such as Canada with the National

23 Potter RE, Ertel M, Dollard MF et al. Joint ICOH-WOPS and APA-PFAW global roundtable perspectives: exploring national policy approaches for psychological health at work through the "National Policy Index" lens. *Industrial Health* 2024; 62: 353–366.

24 ISO 45003:2021 Occupational health and safety management – Psychological health and safety at work – Guidelines for managing psychosocial risks. Edition 1, 2021. Available from https://www.iso.org/standard/64283.html (accessed on November 26, 2024).

Standard for Psychological Health and Safety in the Workplace.[25] This is a voluntary standard, which means that only companies that volunteer to apply these, will do so. Such optional initiatives may self-select companies that may already be among the best in terms of psychosocial risk prevention. If such standards are likely to be useful tools helping businesses improve their prevention of psychosocial risks, it is quite unsure whether this will translate to all of the other businesses, who do not put in the same effort and do not use these voluntary standards.

Hard law, on the other hand, has measurable effects on the prevention of psychosocial risks.

Reducing Job Demands or Increasing Job Resources?

Aditya Jain has worked with a group of colleagues to determine whether the introduction of specific legislation on psychosocial risks or work-related stress is associated with the implementation of action plans, and a lower level of job stress.[26] They analyzed data from large European Union (EU) surveys and assessed the presence of specific work-related stress legislation in EU countries. They found that the presence of specific national-level stress legislation was associated with companies having work-related stress action plans, increased job resources for workers, and reduced stress at work. Another interesting finding is that such legislation was not associated with the reduction of job demands, while it increases job resources. Primary-level interventions, modifying and improving work organization and design, are precisely the type of interventions that best tackle job demands. Hence, it is possible that EU companies are more likely to implement plans aiming at developing resources (secondary prevention) and rehabilitation (tertiary prevention).

We are back to the same problem: modifying the work organization is extremely difficult to achieve, compared to the relative ease of individual-based intervention that leaves the organization intact. You may remember from Chapter 5 that high job demands is a hazard associated with burnout and depressive disorders. Tackling this particular factor should therefore be a priority.

---

25 CAN/CSA-Z1003-13/BNQ 9700-803/2013 (R2022): Psychological health and safety in the workplace. Available from https://www.csagroup.org/article/can-csa-z1003-13-bnq-9700-803-2013-r2022-psychological-health-and-safety-in-the-workplace (accessed on November 26, 2024).
26 Jain A, Torres LD, Teoh K, and Leka S. The impact of national legislation on psychosocial risks on organisational action plans, psychosocial working conditions, and employee work-related stress in Europe. *Social Science and Medicine* 2022; 302: 114987.

During the COVID-19 pandemic, I contributed to a cohort study involving almost 5000 healthcare workers coordinated by Nicola Cherry, emerita professor of occupational medicine at the University of Alberta (Canada). Among the many elements we looked at, we were interested in the availability and use of workplace mental health support by healthcare workers, such as one-on-one consultations with a counselor or a psychologist, access to online self-learning tools to manage stress, a helpline or an Employee Assistance Program (EAP).

We looked at it quantitatively and qualitatively.

Quantitatively, we have seen that 94% of workers reported access to some workplace support:[27] this illustrates how common such support is (at least for healthcare workers). Helplines and EAPs were the most available forms of support to healthcare workers. Access to support increased over the first two years of the pandemic, with close to half of workers using it at least once. The use of such support was associated with some improvement of workers' mental health afterwards: for those using an EAP, the number of cases of anxiety had decreased six months after, but not cases of depression. Such improvement was not observed in the cohort in the longer term.

Shannon Ruzycki, an assistant professor of general internal medicine at the University of Calgary (Canada), took the lead on the qualitative analysis.[28] During the cohort study, participants were invited to describe in open text the types of support they valued for their mental health. The thematic analysis showed that the top categories included "formal and informal peer support," "workplace mental health support" and "one-on-one counselling." When finally asked directly, workers did not seem to have in mind structural workplace modifications as possible remedies tackling psychosocial hazards. It is very likely that most workers have integrated that such deep organizational changes (i.e. acting on job demands) are less realistic than providing counseling or peer support (i.e. acting on resources). This integration of what is realistic and what is not then influences the influence of workers as a group to pressure organizations for change. It is possible that we then have a vicious circle: the fewer organizations conduct changes on job demands, the less it will be perceived as something realistic by workers, the less they will demand such changes, the fewer organizations will conduct changes on job demands....

---

27 Ruzycki S, Adisesh A, Burstyn I et al. Availability, use, and impact of workplace mental health supports during the COVID-19 pandemic in a Canadian cohort of healthcare workers. *Archives of Environmental & Occupational Health* 2024; 79(2): 57–66.

28 Ruzycki S, Adisesh A, Durand-Moreau Q et al. Supports for mental well-being valued by healthcare workers: qualitative analysis of data from a Canadian cohort of healthcare workers during the COVID-19 pandemic. *New Solutions: A Journal of Environmental and Occupational Health Policy* 2025. doi: 10.1177/10482911251322502.

The Warm Fuzzies Derived from Alcoholism Programs: EAPs

We have mentioned these EAPs, but what exactly are they? The Canadian Center for Occupational Health and Safety provides the following definition:[29]

> *An EAP, or employee assistance program, is a confidential, short term, counselling service for employees with personal difficulties that affect their work performance. EAPs grew out of industrial alcoholism programs of the 1940's. EAPs should be part of a larger company plan to promote wellness that involves written policies, supervisor and employee training, and, where appropriate, an approved drug testing program.*

Interestingly, the origin of EAPs initially had little to do with employee wellness, but rather with the need for a stable workforce during the Second World War, when some companies had no choice but to recruit workers experiencing alcohol-use disorders.[30] From a HR perspective, it was considered more cost-effective to try to rehabilitate them rather than having a higher turnover of the workforce. Historically, these programs put a lot of emphasis on issues related to worker substance use (through Occupational Alcoholism Programs, OAPs). It became a typical element of employee benefits in large companies in the 1990s. Activities include supporting workers, but also their families (such programs are sometimes even called EFAPs, for employee and family assistance programs) to deal with work-related and non-work-related issues.

The confidentiality of EAPs is a critical element. There has been qualitative research looking at barriers preventing workers from accessing EAPs. Focus groups conducted by Lynda Matthews, an adjunct professor at Griffith University in Australia, and her colleagues in 2017 and 2018 pointed out that workers do not necessarily trust that they will effectively be confidential.[31] Some of the themes

---

29 Canadian Centre for Occupational Health and Safety. *Employee assistance programs (EAPs)*. Available from https://www.ccohs.ca/oshanswers/hsprograms/eap.html (accessed on December 5, 2024).

30 Attridge M, Amaral T, Bjornson T et al. History and growth of the EAP field. *EASNA Research Notes* 2009; 1(1): 1–4. Available from https://archive.hshsl.umaryland.edu/bitstream/handle/10713/5127/EASNA%20Research%20Notes%20Vol%201%20No%201%20History%20and%20Growth%20of%20EAPs%202009-August%20%28Attridge%20et%20al%29.pdf?sequence=1&isAllowed=y (accessed on December 5, 2024).

31 Matthews LR, Gerald J, and Jessup GM. Exploring men's use of mental health support offered by an Australian Employee Assistance Program (EAP): perspectives from a focus-group study with males working in blue- and white-collar industries. *International Journal of Mental Health Systems* 2021; 15: 68.

identified included skepticism about the efficacy of "talking therapies," some participants mentioning that these can look like "warm fuzzies." Some workers doubt that they would be effective in solving their issues. There was some distrust about the value of the advice, being too generic and not tailored to their specific situation. Some participants mentioned the fact that it might be mostly a box to tick for businesses, while they provide workers with unrealistic targets and expectations.

Dominique Lhuilier and Malika Litim, associate professor of psychology, were already in 2009 very critical of this type of support provided to workers.[32]. They insisted on the difference between addressing (or fixing) occupational hazards versus managing (or dealing with) occupational hazards. There are lucrative business opportunities for therapists or coaches willing to provide workers with such phone or in-person support therapies, including cognitive-behavioral therapies. The idea is to change the worker rather than their work environment. They wrote:

> *Ultimately, the work of psychologists would be limited to helping workers tolerate the inacceptable, by treating the subjective waste generated by work.*[33]

The "subjective waste" includes work-related mental health issues, job stress. I have always been impressed by the capacity of Lhuilier to select the correct words to express her thoughts. The word "waste" is spot on. It really is a waste: waste of energy, waste of motivation, waste of health.... Rather than looking at how the waste is generated, such approaches are just trying to be some sort of recycling facility.

Introducing regulation on psychosocial risks may be effective, but it is necessary to look at what we are tackling. Regulation should not be limited to the provision of support systems to workers. Primary-level interventions changing work design must also be integrated.

The Role of Labor Inspectors and Penalties in the Prevention of Psychosocial Risks

There are some tools rarely considered in terms of prevention: inspections and penalties against companies. These are usually not very popular. It is quite common to develop an approach towards companies that is rather understanding, realistic, and certainly not punitive. However, there is some evidence on the

32 Lhuilier D and Litim M. Le rapport santé-travail en psychologie du travail. *Mouvements* 2009; 58(2): 85–96.

33 In French: « *Au bout du compte, le travail des psychologues reviendrait à rendre supportable l'insupportable, en « s'investissant dans le traitement des déchets subjectifs du travail* ».

effectiveness of occupational health and safety inspections and penalties to improve occupational health outcomes and reduce occupational injuries. This said, certain types of inspections may be more effective than others.

Emile Tompa is a labor and health economist, and senior scientist at the Institute for Work and Health (IWH), one of the key research institutes in occupational health in Canada, based in Toronto. He took the lead on a systematic review looking at the effectiveness of legislative and regulatory policy levers in reducing injuries.[34] There was strong evidence that inspections with penalties were effective. On the other hand, it seems that inspections with no penalties had no effect, although the evidence was less strong.

Another systematic review has been led by Johan Hviid Andersen, a professor in the Department of Clinical Medicine at Aarhus University in Denmark, and published in 2019.[35] This showed moderately strong evidence of the effect of inspections on injuries (reducing them by 27%). The research they retrieved for their review was considered heterogeneous.

In 2021, Chris McLeod, an associate professor and head of the Occupational and Environmental Health Division at the School of Public Health of the University of British Columbia in Vancouver (Canada) led a team looking at the effect of inspections on occupational health and safety of workers.[36] Looking at data from the province of Alberta, they showed that there was a complex pattern of effects of inspections on injury rates. Inspections reduced the number of work-related fatalities. However, they also saw that some inspected firms experienced increased injury rates, which might have been explained by improved reporting after the inspection. All in all, they concluded that inspections alone (including those without penalties) may not be sufficient to lead to reductions in firm work injuries, and that these may need to be supplemented by additional support.

Overall, it seems that there is some evidence that builds up the effectiveness of inspections combined with penalties, in the improvement of some occupational health and safety outcomes. Results in this field are quite encouraging, but more research is definitely needed. In particular, further research looking more

34 Tompa E, Kalcevich C, Foley M et al. A systematic literature review of the effectiveness of occupational health and safety regulatory enforcement. *American Journal of Industrial Medicine* 2016; 59: 919–933. doi: 10.1002/ajim.22605.

35 Andersen JH, Malmros P, Ebbehoej NE et al. Systematic literature review on the effects of occupational safety and health (OSH) interventions at the workplace. *Scandinavian Journal of Work, Environment & Health* 2019; 45: 103–113. doi: 10.5271/sjweh.3775.

36 McLeod C, Macpherson R, Ailin H, Benjamin A, Emile T, Mieke K. *The effectiveness of regulatory inspections in reducing work injuries in Alberta*. Final report, June 30, 2021. Available from https://open.alberta.ca/publications/ohs-futures-effectiveness-of-regulatory-inspections-in-reducing-work-injuries-in-alberta-report (accessed on July 19, 2024).

specifically at work-related mental health fatalities (suicides) and ill-health would be most useful. Based on this, the traditional speech outlining the need to be "non-coercive" and "understanding" vis-à-vis industries when it comes to occupational health and safety does not seem to be supported by the research, if the aim really is to significantly improve workers' occupational health.

The Conservative Government of Ontario has decided to move forward and implement a 500,000 Canadian dollar minimum fine for employers responsible for more than one serious workplace injury or death within a two-year period.[37] This is the highest minimum penalty for workplace safety violations in Canada. The maximum fine has also recently been raised from 1.5 to 2 million Canadian dollars for companies convicted under the Occupational Health and Safety Act. While the research is suggestive that such legislative changes are likely effective, real-world data will be extremely interesting after their implementation.

Large and strong policy changes are the ones that have significant effects on occupational health. Small-scale interventions voluntarily implemented by select companies are not going to have a meaningful impact, looking at the entire population of workers. We can recall the example of asbestos and its ban in many countries. Asbestos has been used for centuries.[38] It was a useful material for fireproofing and insulation. The problem is that exposure to asbestos fibers is deadly. It is known to cause a variety of different cancers, including mesothelioma, lung cancer, ovarian cancer, and laryngeal cancer, amongst many others. More than a quarter of a million individuals die from asbestos-related diseases worldwide each year. There have been many attempts from the industry to try to develop ways to use it while reducing the emission of fibers (aka "controlled use"), without success. A ban has been implemented in many jurisdictions: in 1997 in France, or in 2018 in Canada.

Sweden decreased the use of asbestos in the mid-1970s. The latency between exposure to asbestos fibers and the onset of asbestos-related diseases can be very long, up to 40 years. It is only nowadays that we can start to see the effect of such bans. There is now evidence that such bans have been effective in decreasing the risk of mesothelioma.[39]

---

37 Human Resources Director. *Ontario's $500,000 safety fine will reduce workplace injuries and fatalities, says expert*. Available from https://www.hcamag.com/ca/specialization/workplace-health-and-safety/ontarios-500000-safety-fine-will-reduce-workplace-injuries-and-fatalities-says-expert/516648 (accessed on December 23, 2024).

38 Järvholm B and Burdorf A. Asbestos and disease - a public health success story? *Scandinavian Journal of Work, Environment & Health* 2024; 50(2): 53–60. doi: 10.5271/sjweh.4146.

39 Järvholm B and Burdorf A. Emerging evidence that the ban on asbestos use is reducing the occurrence of pleural mesothelioma in Sweden. *Scandinavian Journal of Public Health* 2015; 43(8): 875–881. doi: 10.1177/1403494815596500.

The strong policy changes are what we like to see from an occupational health perspective. Recognizing the severity of the health issue led to the most significant and effective measure: the enforcement of a ban, which corresponds to the first step in the hierarchy of controls – suppressing the hazard.

Overall, there is no indication that more education, more outreach, more "non-coercive" approaches are going in the right direction when it comes to seriously preventing work-related mental health conditions from happening.

An Attempt to Summarize and Recap the Types of Interventions and Their Interest

Let us recap what we have seen so far:

1) Improving workers' occupational health should not be left to bilateral discussions between employers and employee representatives. Governments must play a role, in the spirit of tripartism.
2) Implementations of national policies may be effective in reducing work-related stress.
3) When looking at work-directed interventions, those tackling job support are more common than those reducing job demands, the latter being likely the most effective.
4) There is some evidence that inspections and penalties are effective in improving occupational health and safety outcomes: one can expect that this may also have beneficial effects in terms of work-related mental health issues. However, further research is needed in this area.

So far, we have discussed many different types of interventions. I have summarized a number of them in Table 12, along with a commentary to quickly grasp the complexity and potential issues with each of these. You will see that I am skeptical of the effects of most of these interventions. I remain of the opinion that we will obtain meaningful and durable improvement for work-related mental health issues only if there is strong governmental involvement, with significant policy changes, coming along with inspections and enforcement. Otherwise, work-related mental health initiatives are likely going to be quite localized and temporary, if they depend on the goodwill of stakeholders at a given time and in a given company, bearing in mind that this can change quickly. Such an approach is not up to the standard one can expect to address such a critical occupational health issue.

Hence, there is no quick and easy fix to job stress. Accessible solutions are unlikely to be revolutionary; what would be revolutionary are deep legislative changes and enforcement, which are difficult to obtain. However, there is increased importance given to these topics by international organizations such as

Table 12 Examples of work-related mental health interventions at different levels

Level of intervention	Examples of interventions
Workers themselves	*Using medications and substances* Using medication is not necessarily a problem if it is related to the appropriate and evidence-based treatment of a non-work-related ill-health problem, provided by a physician. Workers must not be discriminated against at work based on their health situation (including their mental health), even though some research has shown that workers with mental health diagnoses are more likely to experience discrimination, losing promotion and pay-rise opportunities.[40] If a worker presents with a work-related condition, providing medication should only be a way for the worker to recover (always according to appropriate diagnosis and evidence), while root causes at work are directly addressed. If a worker needs to take a substance to enhance their job performance (i.e. doping), working conditions must also be looked at and corrected. In any case, workplace issues must not be mitigated, expecting workers to take medication or substances. No one should rely on workers taking medication to cope with difficult working conditions, whether the work problem is permanent or temporary. *Practicing mindfulness techniques, relaxation, and equivalents* These only rely on the goodwill of workers to apply techniques and advice made for them to "bear the unbearable" of inappropriate working conditions, for which there is no serious plan for improvement. Although there are no clear issues with individuals opting into such practices (as long as it is their own choice), this must not be a corporate policy to just assist workers in bracing themselves while there are no improvements with working conditions.
Company	*Offering an Employee Assistance Program (EAP)* Originally developed more for HR and job retention issues of workers with alcohol-use disorders, these programs are not meant to improve working conditions. They have been described as "warm fuzzies" talking therapies. Confidentiality is a critical issue. These may also provide very generic advice to workers, regardless of their specific situations. It is a support program that is quite easy to provide to workers, and should be considered as a bare minimum, being clear on its limited impact.

40 Janssens KME, van Weeghel J, Dewa C et al. Line managers' hiring intentions regarding people with mental health problems: a cross-sectional study on workplace stigma. *Occupational and Environmental Medicine* 2021; 78: 593–599.

Table 12 (Continued)

Level of intervention	Examples of interventions
	Offering workshops (mindfulness, education around harassment…) The provision of workshops (whether in-person or e-learning modules) is also an easy way for a company to "tick the box." These initiatives usually rely on the general idea that workers need to be educated or instructed to deal with workplace issues: otherwise said, it is on them to change and adjust, as naturally they would be insufficiently equipped to navigate workplaces appropriately. Such workshops do not aim to transform workplace conditions. They may be quite appreciated by workers, but the immediate worker satisfaction with such a workshop (that can provide them with a break from their tough working conditions, with snacks included) is usually disconnected from any measurable long-term effect on their mental health: the evidence of such long-term effects is either lacking or quite unimpressive. The provision of workshops is an excellent market opportunity for consultants. *Promoting "cultural change"* Promoting "cultural change" is often a catchy expression that's heard in companies. However, it rarely translates into anything practical or meaningful for workers. These are often just words. Besides, it is basically asking workers as individuals to change their behaviors, with little concern for structural changes. It is questionable that there is any effectiveness of such attempts at modifying the company's culture. For instance, when discussing the right to disconnect (i.e. the fact that workers should not be forced to respond to emails or phone calls outside of their work hours), work psychology professor Marc-Eric Bobillier Chaumon indicates that it is usually seen as the individual's behavior that needs to be changed: the onus is on the worker to decide whether or not they respond to emails outside of work hours.[41] A "cultural change" with regard to the right to disconnect could be seen as the sum of individuals' behaviors in making such decisions. Generally speaking, a cultural change in workplaces may well be restricted to changing the sum of individuals' minds. This is very different from changing the organization itself.

(*Continued*)

41 Bobillier Chaumon ME. Psychologie du travail digitalisé. Nouvelles formes du travail et cliniques des usages. 2023. Malakoff. Editions Dunod (p. 31).

Table 12 (Continued)

Level of intervention	Examples of interventions
	Conducting assessments of psychosocial environment (questionnaires, surveys…) Repeating surveys can be a strategic way for companies to demonstrate that they care about workers' mental health. However, such surveys rarely occur at strategic moments known to have clear impacts for their mental health (e.g. merger, restructuration, downsizing…). Workers can easily be exhausted with filling out such questionnaires that do not seem to trigger any meaningful change at their level. Worse even, it can be a deliberate strategy to find reasons to endlessly delay job design improvements ("we need to assess the situation"), while surveys and their results can lead to considerable internal communication, making workers believe that a company really cares about the workers' mental health (while never operating any meaningful job design improvements). Repeating surveys is basically a way to take the temperature: you can take the temperature as often as you like, it has never helped extinguish a fire. *Appointing a Chief Wellness (or Happiness) Officer* The effectiveness of a Chief Wellness Officer depends on their own insight into the role and where they fit into the company's organigram. At worst, they may just catalyze a lot of worker-directed interventions and be just workshop and survey organizers and PowerPoint presenters. Appointing a Chief Wellness Officer in these conditions will essentially be an internal communication tool aimed at reassuring workers, ticking the box and looking good. If they are just subordinates, and not part of the top-level leadership team, they are unlikely to have the required operating leeway to implement meaningful changes. However, if they are integrated into the top leadership team, develop a critical reflexion that goes beyond delivering worker-directed approaches, and are provided with the power to make strategic decisions to improve occupational health in the company, they may have a positive influence. *Offering worker-comforting initiatives (pizza parties, pet-therapy…)* These initiatives are now extremely criticized by workers themselves. They can be seen as highly cynical, if they are the first (or the only) interventions offered to address psychosocial risks. They are totally disconnected from work conditions and must not be considered a serious corporate strategy to address psychosocial risks.

Table 12 (Continued)

Level of intervention	Examples of interventions
	Offering a benefit package that includes the provision of mental health care, long-term disability… Appropriate benefits may say a lot about how the company really cares for their workers. Even though these do not address directly the working conditions, benefit packages that include proper disability benefits (that can be seen as tertiary prevention) and mental health care are going to be very helpful. These will have a positive effect beyond the field of mental health. However, it is not really an occupational health strategy in itself, and exposure to psychosocial risks is not addressed this way. *Work from home (or telework)* Work-from-home arrangements cannot be offered to all workers. However, when it is practical to do so, it may be a valuable tool for workplace accommodation (e.g. for workers presenting with long Covid).[42] There is some pushback from certain employers against these arrangements. Such employers would apply collective policies encouraging employees back into physical offices after the Covid pandemic, even though this changed absolutely nothing in terms of their assigned work objectives and productivity. Undifferentiated corporate policy sometimes takes precedence over the duty to accommodate specific workers' needs. A work-from-home arrangement may be a way for a worker to be displaced from a negative psychosocial work environment (but it may not be enough to solve the root causes). It may be a way for a worker with mental health problems (whether they are work-related or not) to have more flexibility that allows them to stay employed. However, this may come with several adverse effects in terms of workflow and communication. A systematic review conducted in 2022[43] pointed out the lack of high-quality research on the effects of work from home on the psychosocial work environment. Another systematic review conducted in 2023[44] concluded that part-time teleworking may have a positive impact on psychosocial risk factors. Telework comes with potential benefits and risks for workers.

(*Continued*)

42 DeMars J, Durand-Moreau Q, Branton E et al. Challenges to occupational rehabilitation for people living with long Covid. *Journal of Occupational Rehabilitation* 2025 In press.

43 Vleeshouwers J, Fløvik L, Christensen JO et al. The relationship between telework from home and the psychosocial work environment: a systematic review. *International Archives of Occupational and Environmental Health* 2022; 95(10): 2025–2051. doi: 10.1007/s00420-022-01901-4. Epub July 13, 2022. PMID: 35829741; PMCID: PMC9652268.

44 Antunes ED, Bridi LRT, Santos M, and Fischer FM. Part-time or full-time teleworking? A systematic review of the psychosocial risk factors of telework from home. *Frontiers in Psychology* 2023; 22(14): 1065593. doi: 10.3389/fpsyg.2023.1065593.

Table 12 (Continued)

Level of intervention	Examples of interventions
Occupational health professionals	*Provision of occupational health services* There may be some variation in the approach provided: some occupational health providers may rely a lot on worker-directed initiatives, and some may deploy more efforts to support organizational changes, and advise employers in this regard. They usually are acting as advisors to the company. In jurisdictions where such services are not mandatory, the fact that a company offers them can be seen as a positive sign for workers. *Provision of ergonomic and/or work psychology services (preventive or corrective) tackling the work organization* Such consultants are often called into companies for corrective action after a serious event or a high level of organizational dysfunction has occurred. Their approaches may also be variable. They may organize workshops to brainstorm workers on their insight in improving working conditions, participate in observations of work activities, and deliver recommendations for further organizational change. As they act as consultants, the company may or may not decide to implement their recommendations.
Government and legal initiatives	*Ratification of ILO conventions related to psychosocial risks (C190) and workers' fundamental right to a safe work environment* These international initiatives demonstrate the increased importance of occupational health, and work-related mental health, in international regulation. A portion of the ILO normative framework automatically applies to all Member States (e.g. fundamental rights). The rest are subject to ratification, or are recommendations. The inflation of such a framework is likely to cascade through all national levels of jurisdiction, and influence positively occupational health laws. There have been similar precedents with regard to the regulation of children's work by the ILO. However, such changes will take a lot of time to occur. These may also focus more on the provision of job support rather than the improvement of job design. *Enforcement with inspections and penalties* There is emerging evidence that inspections with penalties for companies are effective in improving occupational health outcomes for workers. One can expect that this should also have a positive impact to prevent psychosocial risks, although more data and research are needed in this regard.

the ILO and the WHO,[45] and we could hypothesize that this would put some pressure on Member States to reinforce their national normative framework for better worker protection.

Can I Blame Those Who Use Worker-Directed Approaches?

The remaining question is: what to do in the meantime? On the one hand, we have mostly low-efficacy and individual-based tools and on the other hand, the strong normative framework is not there yet in most countries.

We cannot ask people, and occupational health providers in particular, to just look at workers suffering from psychosocial risks and do nothing, just because interventions are not very effective. It would be difficult for occupational health providers to live with the idea that they identify problems and leave workers with no support. The individual-level interventions are convenient for many reasons: they are quite inexpensive, they are easily accepted by employers (compared to questioning working conditions), if you run a satisfaction survey these are generally quite positive (even though customer satisfaction is not a very relevant metric when it comes to health), and there is always the possibility to say "*it's better to do that than nothing*," even though it is quite debatable. On the other hand, any other intervention is more complicated: work-directed interventions will require difficult (not to say conflictual) conversations with employers, as the purpose is to question the way they have organized work with the idea that they may haven't done a great job in terms of preserving workers' mental health; they are going to take time, they are dependent on the stability of stakeholders (e.g. if a director that was supportive of the intervention moves to another position, they can be replaced by a new director that is not supportive of the intervention, which may be enough to kill the entire project), work organizations are usually seen as being unmodifiable things that workers have no choice but to deal with. We have normalized forced restructuring as a tough medicine to swallow for workers, on which it is obvious that their input is rarely gathered; surveys are usually conducted afterwards. And the likely most effective, legislative changes, may even be seen as an unrealistic and unattainable target. Overall, everything is aligned to encourage individual and worker-directed interventions.

There are two possible attitudes then. Either embrace these interventions, being naïve about the many issues (e.g. the possible reinforcement of workplace issues:

45 The WHO released guidelines on mental health at work in 2022 for instance, available at https://www.who.int/publications/i/item/9789240053052 (accessed on 2 January 2025).

why should we change the work organization if we can ask workers to cope with these?) and cognizant that they are plasters on a wooden leg; or advocate for systemic change but be aware that this goes with difficult or conflictual conversations in the long term and low expectations.

Even though my take has always been on the side of advocacy for systemic change, this comes with difficulties. Questioning workplace organizations during joint health and safety committees can be perceived as a strong criticism against business development decisions. Subsequently, there may be some sort of intimidation (i.e. through complaint letters to the supervisor of the occupational health department).

Annie Touranchet was a renowned occupational medicine labor inspector practicing in Nantes (France) until the 2010s. She was a colleague of Jean-Yves Dubré, who was one of my supervisors during my residency training. I remember one of her lectures where she said that if an occupational medicine specialist always has great relationships with employers, it may be because they just do not do their job. This is not to say that occupational medicine specialists should necessarily have to argue all the time with employers: rather, one should wonder why an occupational medicine specialist would get along "too well" with employers. Is this because they are good employers, caring for the working conditions of their employees, or is it because the occupational medicine specialist is not raising any issue with them and is too complacent?

Another huge element in this complicated puzzle between the occupational medicine specialist and the employer is labor laws. In France, occupational medicine specialists are heavily protected by the labor code. They can visit workplaces at any time. They cannot easily be fired. Attempts in intimidating them usually do not translate into real retaliation. In North America, the context is totally different. There is no similar protection. Hence, an occupational medicine specialist practicing in Canada or in the United States also needs to balance their action with the risks which are considerably higher for them.

Based on all of this, you understand that I cannot give you any ready-made procedure to apply in all contexts, all situations, and that would fit all individuals' personal dilemmas. The best thing is to be mindful of the adverse effects of interventions, to be critical, and to make your own informed decisions, knowing they are likely to be imperfect.

Conclusion

Job stress is (1) a complex phenomenon, (2) a serious phenomenon, (3) usually dealt with simplistically, but (4) with existing ways to fix it seriously that are not sufficiently considered.

1) It is complex, as there are many determinants, many different models and ways to appraise it, many different ways of mitigating it, whether that is with work-directed or worker-directed initiatives.
2) It is serious. As we have seen, exposure to psychosocial hazards is associated with many diseases. It is estimated that work plays a role in 10–13% of all suicide deaths.[1] If we apply this to Canada, which has approximately 4500 deaths by suicide each year, the best-case scenario may be roughly 450 work-related suicides per year.[2] These are very likely under-recognized. There are usually less than 10 fatalities related to mental health and compensated by workers' compensation boards per year in Canada.[3]
3) It is usually dealt with simplistically, with a predominance of worker-directed initiatives, which I have also called "cosmetic" approaches, made up of PowerPoint presentations and workshops that never fundamentally improve working conditions, and more precisely, the exposure of workers to psychosocial hazards.

---

1 LaMontagne AD, Åberg M, Blomqvist S et al. Work-related suicide: evolving understandings of etiology & intervention. *American Journal of Industrial Medicine* 2024; 67(8): 679–695. doi: 10.1002/ajim.23624. Epub June 9, 2024. PMID: 38853462.

2 Government of Canada. *Suicide in Canada*. Available from https://www.canada.ca/en/public-health/services/suicide-prevention/suicide-canada.html (accessed on February 11, 2025).

3 Data obtained upon request from the Association of Workers Compensation Boards of Canada (AWCBC). Reports are available on their website at https://awcbc.org/data-and-statistics (accessed on February 11, 2025).

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition. Quentin Durand-Moreau.

4) There are ways to fix it seriously. These require advocacy, strong policies, and enforcement. If we want to seriously improve job stress on a large scale, we cannot just leave employers and employees on their own without a strong legal framework. Such a framework would tell everyone, in substance: you can operate your business and make money out of it, but it should not make workers sick nor kill them. There must be clear incentives provided to employers to act on job demands, rather than just providing job resources.

It is fundamental to collectively shift our approach from scattered, worker-directed, uncoordinated, cosmetic approaches. We should stop giving any credit to these approaches, which are closer to public relations management, and stop living with the fantasy that they will really help workers, beyond their ability to temporarily act as "warm fuzzies." They will bring us nowhere. We must collectively push for a more coordinated, structured, and systemic approach. This requires strong advocacy and policymakers willing to take a step forward to implement such policies. This will not be easy: implementing stronger occupational health and safety regulation is not going to be popular. But we cannot have our bread and eat it. We cannot be in a world where there are not a lot of limits in terms of occupational health and safety and expect that this can go well for workers.

In this book, I have compared this challenge to the situation with asbestos. I really think that this is a valid comparison. Significant progress with asbestos-related diseases has been obtained with strong asbestos bans, and where governments have stepped in. There is no reason to believe that we could seriously manage such serious occupational hazards as psychosocial hazards meaningfully in another way.

All in all, fixing job stress is not a one-person job. It is a group task. I am optimistic that the international push from the International Labour Organization, with additional normative texts, will put pressure on Member States to improve their policies, ultimately cascading into each country, province, and state. It will undoubtedly take a lot of time to get to that point.

Rather than equipping you with resilience and coping skills, I hope that you might be convinced that more advocacy is warranted. If, at the end of this book, you are now envisioning the question of job stress with a bit more complexity and distance from claims of an easy fix through some mindfulness workshops or toxic personality management, I would consider that I have achieved my goal.

Acknowledgments

I need to thank a number of people who have played an important role in helping me, directly or indirectly, write this book.

I would never have considered a career in occupational medicine without the lectures of Christian Géraut, when I was in medical school in Nantes.

Another person who has played a significant role in my career is Chantal Bertin. I have told stories of my experiences learning occupational medicine in the field with her. She is the occupational medicine specialist I would have liked to be, and brought a whole world of strong reflection on what work actually is.

Jean-Dominique Dewitte (or Jean-Do as people call him) deserves a special word. Jean-Do hired me in his team at Brest University Hospital in 2013. Once I was hired, he gave me considerable leeway to develop the work-related mental health clinic that helped me enhance my expertise in this field. He provided me with some time to work on publications and participate in teaching in the field, in national working groups as well as at international conferences.

There are many people at the *Conservatoire National des Arts et Métiers* (CNAM) who acted as mentors to me. I learnt work psychology at CNAM: the teaching sessions I attended there were probably the best I had ever attended. I am grateful I was able to learn directly from Yves Clot and Katia Kostulski. Even though I was never exactly one of her students, I also consider Dominique Lhuilier as one of my mentors in the field. Meeting with all of them, as well as the team of professors at CNAM, was a great opportunity for professional development.

I am grateful to Philippe Davezies. It is thanks to Chantal (again) that I ended up being connected to him. I remember participating in conferences he was hosting in Lyon with his association called ARAPT (*Association Rhône Alpes de Psychodynamique du Travail*). His unique contributions in the field of occupational medicine have been a source of professional growth for me.

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition.
Quentin Durand-Moreau.

The ICOH-WOPS scientific committee and its conferences have always been a stimulating venue for me. I had the privilege of serving as co-chair of this committee between 2018 and 2024, and working on the board with Akihito Shimazu, Tania Maria de Araujo, Denise Minnie, Michael Ertel, and Marie-Agnès Denis. Many other members and people I have met during these conferences have had an influence on my approach. I will not be exhaustive here, but I think of Stavroula Leka, Maureen Dollard, or Reiner Rugulies.

I am also fortunate to have crossed the path of Johannes Siegrist. We were at the same hotel back in Mexico City for the ICOH-WOPS conference, organized by Horacio Tovalin. I had the idea of an MD dissertation while at the hotel and remembered discussing it at breakfast. This idea became the MD dissertation of Romain Jean dit Bailleul and led to a publication.[1]

I am also very grateful to all of my colleagues, faculty and administrative staff, in the Division of Preventive Medicine and the Department of Medicine at the University of Alberta for their continued support of my work, and their encouragements. I am grateful that the University of Alberta hosts one of the only three residency programs in occupational medicine in the country, and to have the privilege of serving as program director.

I would like to thank the team at Wiley, particularly Kelly Gomez, Janaki Kumudam Gothandaraman, Sarah Lewis, and Avinash Makarla. I am grateful that they have supported this book from the start, and helped me transform this longstanding vague idea into something real.

I also want to have a special word for my bestie, Swati Jha, whom I regularly consulted informally on this book while I was writing it.

All of these individuals have contributed to this book more than they can imagine.

I am sure I am missing important persons in this list, to whom I apologize in advance.

1 Jean dit Bailleul R, Gourier G, Saliou P et al. Effort–reward imbalance and pruritus among workers suffering from psoriasis: a pilot study. *Archives des Maladies Professionnelles et de l'Environnement* 2021; 82(2): 161–169.

Index

Job Stress Revisited: A Thought Provoking Take on Mental Health and Work, First Edition. Quentin Durand-Moreau.

c

d

WILEY END USER LICENSE AGREEMENT

Go to www.wiley.com/go/eula to access Wiley’s ebook EULA.