

## **A Multifaceted View of Stress**



# 1

## Modern Fatigue: A Historical Perspective

Karin Johansson

“There exists, both within and without the ranks of the medical profession, a widespread belief that the exigencies of modern life are producing an ever-increasing amount of nervous diseases.”

– H. C. Wood, *Brain-Work and Overwork* (1896)

### 1.1

#### Introduction

At the general meeting of the British Society of Medical Psychology held on 21 November 1900, a dramatic increase in mental disorder cases was discussed. Three major causes were indicated: heredity, internal and external toxins, and *stress*. Laboratory experiments had demonstrated that stress was a triggering factor; rats had been placed in treadmill-cages and subjected to extreme stress. Physiologically, the process of illness could be described as a loss of energy. “If, then, it is a disease in which the danger lies in stress,” one doctor pointed out, “we must see many people whose nervous systems will go to pieces unless they can be taken away from the stress in which they are living, whether that be on the stock exchange, or in any other professional occupation where the nineteenth century pressure is very great” [1].

The similarity between the situation at the turn of the 19th century and that of today is striking in regard to an increasing decline in mental health. Both eras define their times as being characterized by major changes, increased information flows, and heavy demands on the urban individual – and all of it happening in a whirling market economy. At both points in time, new diagnoses appear that identify and legitimize the symptoms of stress and internal discomfort in a culture strongly marked by competition, achievement, and a high tempo.

The unifying component in this case, seems to be the perception of an accelerated rate of change, an ever-growing flow of innovations which, on a subjective level, is in danger of creating spontaneous feelings of inadequacy, of not being

able to keep up mentally, physically, and emotionally. This is what makes up modernity's identity – the expectation that the individual be limitlessly adaptable, flexible and progress-oriented. Modernity means being involved in a world where, “all that is solid melts into air,” says modernity researcher Marshall Berman, citing Karl Marx. “To be modern is to find ourselves in an environment that promises us adventure, power, joy, growth, transformation of ourselves and the world – and, at the same time, that threatens to destroy everything we have, everything we know, everything we are” [2].

One concrete way to relate the perception of mental stress at the the last turn of the century to that at the recent one is to compare two medically and culturally legitimized diagnoses that – within their respective contexts – are considered to reflect abnormal fatigue. These diagnoses are neurasthenia and chronic fatigue syndrome.

However, the purpose here is not primarily to find absolute similarities, something that would be based on the concept that illness can be reduced to historically neutral phenomena, but rather to study how the clinical pictures are constructed and which scientific and cultural explanatory models work well together. Ultimately it also involves a new way of approaching the complicated process by which diagnoses are created.

## 1.2

### **Overstrain and Modern Society in 1900**

During the last half of the 19th century, the Western world underwent a dramatic social change. Industrialization, an expanding capital market, and massive urbanization created new patterns of human contact. New technology represented an altered living environment. Special risk scenarios and pathology myths surrounded electrification and the telegraph. New kinds of transportation – trains, streetcars, and later the automobile – represented new relationships between the individual and time and space. The railway, particularly, was considered to carry special risks. The mental and physical stress was symbolized in the speed itself, in the train's shaking, vibrations, and sudden stops, as well as in the hustle and bustle of the railroad stations. Timetables, crowding, loudspeaker announcements, warning bells; all of this, together with the city's disorder, created an uncontrolled stream of sensory stimulation.

A number of scientific theories on modern society's effects on the vulnerable individual were developed. These included the theory of evolution that, in its social Darwinist formulation, emphasized the battle for survival; the theory of thermodynamics maintaining that the individual's energy was limited; and various civilization theories that saw alienation and fragmentation as the inevitable price of progress.

All of the prominent contemporary sociologists – Georg Simmel, Émile Durkheim, Ferdinand Tönnies, and Max Weber – pointed out the inner conflicts that appeared when old ways of life were replaced by new ones, and the individual,

denied his habitual security and value bases, felt lost in a changing world. Many people spoke of growing fatigue. The French psychologist Pierre Janet interpreted this fatigue as symptomatic of a gigantic alienation. Others referred to civilization and evolution as sensibilizing processes. If the individual could not protect his vulnerable self from too-rapid change and the effects of cultural shock, the result was pain.

The situation was described as being serious. Overworked, tortured patients were crowding doctors’ consulting rooms. Their case histories could probably be copied into a present-day scenario without any changes [3].

Merchant, who has been suffering for several years from insomnia, anxiety, and a strong feeling of pressure in his head:

I work from 8 o’clock in the morning until 10 o’clock at night. I can hardly take any time out to eat; usually I eat on my feet, and then it’s cold, tasteless food. By 10 o’clock in the evening I’m so tired that I have trouble finding the strength to close my books. During the night the day’s events whirl through my head, so that it isn’t until early morning that I can enjoy any rest. When I arise, I’m deathly tired, and find that I must drink a few glasses of brandy in order to be fit for work again.

Young businessman, who suffers from insomnia and agoraphobia, has been incapable for months of any intellectual work:

We work from 8 in the morning to 8 in the evening, with barely 15 minutes to eat lunch. In the evening, when work is over, a group of us young men meet at a café, where we eat and drink gleefully until 2 or 3 in the morning. I never get enough sleep ... When I travel, I do it at night so that I can work during the day.

Many doctors report similar cases. The problem is overstrain resulting from overwork and too little rest. Life in a modern city puts a great deal of pressure on an individual. Competition and the struggle to be recognized dominate finances, industry, art, and science. Everyone wants to get ahead. They work intensively to be successful, but feel mostly fatigue and dissatisfaction. For distraction they leap on entertainment and hectic travel. This particular combination of overstrain and overstimulation results in illness. Overstrain is mental, primarily intellectual, but it can also be caused by long-term worry, personal unhappiness, and disappointments.

The argument is thus that mental work drains the body. Overstrain is a condition that causes illness, and is directly related to a lifestyle characterized by the overuse of one’s mental energy.

### 1.3

#### The “Fatigue Problem”

The overstrain theory was central in science, medicine and the media around the turn of the 19th century. Fatigue plays the role of progress’ perpetual goddess of

revenge. There is a huge literary discussion of the relationship between society, fatigue, and ill-health.

This analysis is constructive. Fatigue is seen as a sign of the body's refusal to bow to the modern industrial society. It is not identified as depression, illness, or unwillingness to work, but rather is perceived as a border, even as a kind of awakening – a sound signal from the body of the need for rest and recuperation. If fatigue can be interpreted as the self's natural resistance to increased demands for productivity, then the same interpretation indicates the necessity of creating a better order for the human being in an industrial society.

Fatigue, thus, represents the limits of the individual's physical and mental capabilities, as well as the limits that society cannot overstep without working against its own interests [4].

The overstrain theory was a purely physiological theory borrowed from the laws of thermodynamics, particularly the law dealing with the constancy of energy and that dealing with heat loss (entropy). Translated from a physical to a physiological plane, they gained status as scientific explanatory models for the fragile relationship between the human being and society. The logic was this: the body has at its disposal a predetermined amount of vital energy. In the healthy body this energy is evenly distributed, with special depots in areas like the brain, the digestive system, and the genitals – which in turn have an internal reflex relationship to each other. Overconsumption of energy in one area means that other areas “starve”. According to this economic model, intellectual energy drain thus presents a risk to the individual's sex life and digestion. Every exertion reduces the finite energy capital, and deficits are expressed as ill-health. Continuous external stress threatens to create an irreversible energy drain, a kind of gradual heat-exhaustion of the soul and the body.

This concept of fatigue had a unique ability to translate an external set of problems to inner levels, and to make the body the place where a greater social set of problems could be studied. During the last decades of the 19th century, medical models for a culture in crisis were developed, based on either the degeneration theme or on the overstrain theme. Doctors tried various evaluation methods to translate the individual's response to external stress into a medical science. As concrete physiological conditions, the forms and degrees of fatigue – from tiredness to exhaustion, overstrain, and breakdown – could be identified. At first these conditions were also perceived to be objective, measurable, and possible to deal with. German physiologist Wilhelm Weichardt's sensational announcement in 1904 that he had discovered a vaccine against fatigue turned out, however, to be a disappointment.

Until the 1870s, fatigue had hardly been seen as a medical problem except as a marginal phenomenon in various depressive conditions like melancholy, nostalgia, ennui, spleen, or acedia. At the turn of the century there were hundreds of studies of muscle fatigue, nervous exhaustion, brain fatigue, asthenia and neurasthenia, and nerve fatigue. In most countries overstrain theories appeared in the medical discussions during the 1870s.



**Fig. 1.1.** Esthesiometer. Several technical instruments were introduced to measure individual stress levels, e.g., the ergograph, registering muscle fatigue, the algesimeter, estimating pain, and the esthesiometer, measuring stress levels via skin sensitivity. The greater the loss of mental energy, the lower the capacity to state the distance between two points placed upon the skin (so called spatial limen). Even though the esthesiometer measured mental fatigue only indirectly, it became popular for fixing limit values for overstrain, particularly in school children. Foremost, however, it was used to register loss of sensitivity in nerve-lesion or trauma. It was further developed in order to be applied to minute skin areas, registering exceedingly small distinctions. The most advanced versions were using hair of varying diameter.

Two main arenas were identified for fatigue problems; one was connected to industrial work, and the other to intellectual work. The first was based on a well-known 18th century metaphor, the human machine. The human body and the factory machine both represented motors that changed energy into mechanical work; in conditions of imbalance, exhaustion, or overheating their efficiency would be dramatically reduced.

A number of laboratory studies on the working body were initiated. These included attempts with special instruments – the ergograph, which measured muscle fatigue, and the esthesiometer, which measured the skin’s sensitivity – to register very small changes in the physical process during a specific task (Fig. 1.1).

Soon scientists had investigated many aspects of exhaustion, including the role of fatigue in accidents, sick leaves, and “blue Monday” syndromes. Using increasingly refined measurement techniques, they hoped to successively expose the principle of the body’s energy system, identify the economy of muscular action, and find methods for organizing the consumption of both muscle energy and neural energy. They were particularly interested in determining the critical difference between exhaustion and overstrain. This difference also defined the borderline

between the normal and the pathological, or between capacity and incapacity, respectively, after recuperation through rest.

The second arena for investigating the problem of fatigue was connected with groups that represented high consumption of mental energy; these included schoolchildren, students, scientists, and intellectuals, i.e., “brain-workers.” All over Europe, even in a small country like Sweden, there was a dramatic increase in ill-health among young people at school. Their symptoms were, among others, eye and sleep problems, anemia, chlorosis, and nosebleeds. In France, people talked about an epidemic of overstrain and intellectual exhaustion triggered by decades of educational reforms in combination with murderous demands (“*Véducation homicide*”). Researchers tried using the ergograph to demonstrate that the intense mental strain caused by tasks such as solving a mathematical problem or memorizing Latin or poetry also caused muscle fatigue. A stressed brain could likewise produce restlessness and mental hyperactivity that marked an individual’s character and personality.

Based on this activity, exhaustion appeared to be a strategic threshold value for the individual’s adaptive capacity to modern society. The fatigue problem was a social problem, the responsibility of which therefore had to be shared by the areas of medicine, technology, education, and politics.

There was a hierarchical distinction made between the kinds of fatigue experienced by the manual worker and the intellectual worker. Mental work was determined to be more energy-consuming than heavy industrial work or mechanical office work. The effect of brain stress on the body was thus seen to be greater than direct stress on the body. Distinctions like this confirmed an ancient order between body and soul, as well as between the fatigue of the privileged and that of others. When Karl Marx pointed out that exploitation actually created fatigue, his opinion ended up halfway between the current political discourses. A working-class woman could not, according to the dominant discourse, be overexerted. She might possibly be worn out; a concept associated with the lower class until the middle of the 20th century.

Fatigue – as a measured physical and mental reaction and as a socially constructed concept – thus came to be part of several different explanatory models, including those of labor organizations, social medicine, occupational medicine, and psychiatry. As an indicator of the body’s and the soul’s conditions at a given point in time, overstrain stands out as a condition of decided social and medical significance. It was a matter of protecting the individual from overwork, as well as from overstimulation. Especially in the feverish tempo of the big city, mental fatigue risked being spontaneously compensated for by an equally energy-consuming appetite for entertainment and consumption. It was characterized by luxurious interior decoration, clothes and food, and by extravagance in bodily, sexual, and sensual pleasures. Some people even claimed that modern society’s depleted neural energy could be defined as a special psychophysiological condition, ennui, which explained the artistic peculiarities of the European *fin de siècle* style. According to these interpretations, individual and collective fatigue, not modern esthetics, were the source of the subjectivism, experimentation, and nostalgic retrospectivism – as

well as of the drug culture and gender-crossing within the gay, dandy, and Bohemian lifestyles.

#### 1.4 Neurasthenia

One particular kind of ill-health, neurasthenia, appeared among the effects of overstrain. It represented mental fatigue in its pathological form.

The name was coined in 1869 by George Beard, an American doctor, and it referred to “the forms and types of nervous fatigue that originate in the brain and the spinal cord.” It was defined as the disappearance of nerve energy [5]. The diagnosis specified the diffuse spectrum of suffering earlier characterized as nervous, e.g., neurosis, spinal complaints, hysteria, or hypochondria. These could be divided up into a number of subtypes, such as the cerebral, the sexual, and the traumatic. They included a large number of symptoms (Beard himself names about 80), from headaches, insomnia, pains, and sensitization of all the sense organs, to anxiety, melancholy, and a long series of phobias. The primary symptom was a feeling of paralyzing fatigue. He claimed that the condition was related to the modern lifestyle, and that it affected mainly the overachieving groups in the forefront of civilization like businessmen, stockbrokers, and intellectuals. Neurasthenia was, he said, a cultural illness nourished by the modernization process itself.

The diagnosis spread rapidly to Europe, where it began a long journey. In Sweden it was introduced in the Board of Health’s disease classification in 1890, and soon showed high numbers of sufferers. This is an outstanding example of what can be termed the institutionalization of an illness. When a diagnosis comes into existence – as both name and concept – and is medically and culturally legitimized and exposed in the mass media, it also tends to attract those who exhibit the typical symptoms.

Neurasthenia was generally described as reduced nerve energy expressed as chronic fatigue that shut down or slowed down cerebral, emotional, and bodily activity. The neurasthenic was overcome by powerlessness, emotional instability, and sudden weakness. A reduced ability to concentrate, pay attention, and listen was also noted. In addition to the esthesiometer, an audiometer provided measurements of “the degree of distraction” (actually hearing). Memory problems were also observed to be a general characteristic of the neurasthenic, and even difficulty in remembering his/her own symptoms. Something else that struck many doctors was that the loss of energy seemed to trigger a number of emotional fatigue symptoms in the ability to experience sorrow, involvement, and empathy.

Comparisons of otherwise healthy but mentally exhausted people with neurasthenic patients showed that it was a matter of a difference of degree, and not of any other specific difference. This seemed to explain the fact that neurasthenia was primarily limited to the intellectual professions, i.e., to those social categories consuming large quantities of nerve energy. The neurasthenia diagnosis demonstrates how a number of values of race, sex, and class infiltrate medical science.

Beard considered the idea that neurasthenia could affect “the savage” absurd, but others, such as the well-known neurologist Jean Martin Charcot stated that a person from the working class could also be affected, especially after painful emotional experiences or conflicts with a new, unfamiliar environment. The category of “traumatic neurasthenia” was generally reserved just for the working class. The gender aspect presented problems, as this diagnosis, especially in the Scandinavian countries, tended to be a woman’s issue. At the *fin de siècle*, 80–90% of the more serious cases of neurasthenia were reported to be women. Since intellectual overstrain could not be associated with women (most of whom had access to neither higher education nor the professions), it was necessary to take on gender-specific explanation models of neurological, gynecological or psychological type.

Patients were generally divided up into two main types; one was the depressive, hard-to-reach, and nonverbal, and the other the exalted, communicative, and verbal. Patients could also be sorted by two main types of symptoms: primarily psychological or primarily somatic (e.g., persistent headaches, neuralgic backaches, neuromuscular asthenia, mortal fatigue, and increased sensorial sensitivity). The descriptive mania that characterizes the neurasthenia literature is remarkable; it is as though the slightest symptomatic shift and each sign must be registered. The patients themselves are also described as intensely concentrated on the minute details, constantly producing sets of symptoms that became more and more complex.

As far as symptoms were concerned, neurasthenia did not actually appear as a disease in its own right, but rather as an unstable reflecting system of other diseases. This, in turn, seemed to reflect the provocative identity of the illness; it leaves no part of the individual being unaffected. To the doctor, the neurasthenic’s symptoms formed a sort of bodily text or image, and his/her task was to interpret and give meaning to the patient’s perception of the illness. As it would be for a critic confronted by an abstract modernistic painting, the idea was to discern the structure in a chaos of signs and figures, in which even the absurd and apparently incomprehensible had to be included.

At the beginning of the 20th century, doctors appeared quite desperate about neurasthenia’s extremely many-faceted set of symptoms. The name “asthenia” was suggested in order to separate “energy diseases” from the greater concept of neurasthenia. Many of neurasthenia’s psychic symptoms ended up inconveniently outside the physiological explanatory model that could clarify physical and mental exhaustion, and fit better under the heading of neuroses. The borderlines between different exhaustion conditions had to be defined; the straightforward physiological causes were won back from the complex neuropathological ones.

Asthenia was thus not defined in relation to a greater sociocultural scenario but rather as the physiological effects of a perceived loss of energy. The classical treatment forms rejected rest and care. Doctors were not to advise their fatigued patients to stay away from work and activities. On the contrary, only by mobilizing their inner energy resources and returning to work could they recapture their energy and health. The primary strategy was to exercise mental powers of resistance, to resist and deflect the unconscious flow of associations and fantasies that took command over one’s being when the energy allowance was low.

Studies of fatigue problems thus emphasized the significance of the economy of energy, i.e., of the equilibrium between the individual's inner energy capital and the social requirement. The various degrees or categories of tiredness are structured in steps. Fatigue meant a condition that was reparable by rest. Exhaustion was defined as the "accumulation of fatigue with a gradual capability of recuperation," and overstrain as a condition where the option of recuperation by rest was no longer possible. These conditions functioned as a kind of regulator for work capacity. The machine metaphor was used frequently. Running a machine beyond its adjusted rhythm and capacity was neither effective nor rational. It was more a matter of increasing effectiveness by identifying the optimal equilibrium between inflow and outflow of energy.

When the criticism of modernity had lost ground, and the modern welfare society could be glimpsed behind the industrial expansion, fatigue was released from its role in political cultural analysis. The issue was moved from a greater social stage into the closed rooms of science. As a problem related to production and labor organization, it was assigned to occupational medicine or environmental medicine. As a symptom of pathology processes within the body, it was assigned to virology and immunology. As an expression of depression and inadequacy, it disappeared into psychiatry.

## 1.5

### Between Nervous Fatigue and Chronic Fatigue: Stress

After World War I, the fatigue problem was transformed from an issue of high political and scientific concern into a technical topic, which in the occupational area was connected particularly to industrial rationalization. During the 1940s and 1950s interest was defined primarily by military needs, increased airplane traffic, the beginnings of space research, and later by various security issues related to air travel, traffic, and accidents.

As mental fatigue was related to exterior pressure, the problem was relegated to psychiatry, where it was also given a certain amount of attention. During the 1920s and 1930s it was still possible to use neurasthenia as an umbrella diagnosis. A differentiation was generally made between constitutional neurasthenia, characterized by chronic dejection, and abnormal susceptibility to fatigue with concentration problems and memory blackouts, acquired neurasthenia also affecting the mentally well-balanced as a result of overstrain, and study neurasthenia, energy drain connected with intellectual fatigue. Feminine neurasthenia was defined in its own special category as being "characterized by its exterior intensity of dejection . . . and by weakness. Patients literally lack energy and fortitude, and are unable to go about their usual tasks . . . They are unable to walk; some have great difficulty in keeping themselves upright . . . some of them are completely confined to their beds" [6]. There was a general element of complex passivity and powerlessness combined with muscular asthenia noted in women's neurasthenia, which was otherwise seldom seen.

In the realm of psychiatry, fatigue could also be interpreted in various models. “Neurasthenic fatigue has nothing to do with overstrain,” wrote the well-known Swedish psychoanalyst Poul Bjerre in 1924. Work performance and the exterior work situation play small roles in comparison with the “interior complex job,” i.e., the battle to control inner impulses, setbacks, and complexes. The most significant and most disastrous feature of neurasthenic fatigue is its mechanization, that is, an individual’s “tendency to . . . continuously seek corroboration of one’s own weakness, which in turn is lodged in a physical complaint that then legitimizes the illness role.” Thus the proper treatment is not rest; instead the fatigued person must be fed “new impulses, new obligations, indeed, why not new conflicts?”

However, the fatigue problem had no status in the public arena. It is as though it was relegated into the shadow of the 20th century’s huge modernity and welfare projects. My general thesis, that certain illness syndromes are mirrors of society (or to put it differently, that a subjective feeling of ill-health is translated into the symptoms that society, culture, and social affiliation legitimize), can also be applied in a scenario of nonaffirmation. When fatigue, alienation, and nostalgia are no longer supported by current discourses, they risk being rejected or even stigmatized.

A concept that at this microlevel seems to be better adapted to a society characterized by rationalization, effectivization, and auspiciously pounding machines within the framework of a collective welfare utopia, is that of stress.

This word existed, thus, as early as the turn of the 19th century with the same meaning that it has today, but without defined physiological components. It had no real impact then, and was out-contested by the concept of nervous tension, which fit within the established neuropathological interpretive model. Nervous tension indicated, like stress, a general condition of worry, irritability, and strain. Similarly, it was also described as a condition that was negatively associated with demands of external performance and adaptation. Both concepts mesh to a great degree with the diagnoses that each particular period names and legitimizes: neurasthenia and nervous fatigue or, respectively, chronic fatigue syndrome and burnout.

## 1.6

### **Chronic Fatigue Syndrome**

Since neurasthenia had lost ground as a diagnosis during the 1940s and 1950s, the medical fatigue problem waited several decades for new legitimizing names. Associated primarily with a neurotic, asthenic, or depressive personality – or to a female identity – it had a total lack of social status. Similarly, overstrain and the nervous breakdown were framed in a half-scientific, half-mythologized dimension as names of antiquated reactions outside of the expected normality.

Not until the late 20th century were fatigue and overstrain brought to the fore with new medically legitimizing names, chronic fatigue syndrome and burnout.

The breakthrough was in the 1980s. In the mid 1980s a remarkable new disease was reported; it was popularly called the yuppie disease, but was soon given a more

dignified name, chronic fatigue syndrome. After what seems to have been an acute outbreak in the Lake Tahoe district in Nevada, the illness came to be associated with well-educated young career people (the word yuppie comes from “young urban professional”). The illness mobilized major mass media and scientific interest, and spread quickly – as neurasthenia once had – to Europe [7].

The explanation was linked primarily to two scientific models that were of great interest then, the virological and the immunological models. Both of them could be combined with the lifestyle factor as the triggering cause. The virological model suggested infection with the Epstein–Barr virus, or, alternatively, another micro-organism like herpes, borrelia (which causes Lyme disease) or some other that had not yet been isolated. The immunological model, saying that it was a matter of weakened immunity, pointed first in the direction of similarities with the great nightmare of the 1980s, HIV/AIDS, but thereafter towards various external and internal toxins. Both of the interpretive models mirrored the dramatically increased risk awareness prevalent in the late 20th century associated with contagion and toxemia from the external environment. Clinical ecologists and a number of ideological groups had a huge media impact with theses about risks to the health from the modern lifestyle and consumer culture. Suspected culprits included overuse of antibiotics, chemical additives, insecticides, genetically modified food, toxins from the air, earth, and water, metal excretions, and threatening radiation from electrical equipment, display screens and cell phones.

It has been maintained that chronic fatigue syndrome is nothing more than the old neurasthenia in a new guise. It is true that they both center on great fatigue. While the neurasthenic was considered to suffer from reduced neural energy resulting from external tension, the chronically fatigued individual was believed to suffer from a virus attack or weakened immunity resulting from an external threat. A systematic comparison of the syndromes also shows that there are definite overlaps [8].

The main issue is simply fatigue; a feeling of exhaustion so extreme that it makes any kind of work, exertion, or activity impossible, even distractions like conversation, music, or literature are unthinkable. Other symptoms in common are pains in the muscles and joints or even all over the body, feverishness, persistent headache, a feeling of pressure, sleep problems, a series of neurological symptoms like oversensitivity to sound and light, and memory and concentration problems. In fact the only symptom characteristic of chronic fatigue syndrome that George Beard *didn't* name was sore lymph glands.

We are thus confronted with two sets of symptoms that are almost identical, but which appear at different times, under different names, and are analyzed by different interpretive models. Every such interpretation, in turn, mirrors both a scientific position and the culturally acceptable codes of its time. It can be claimed that in the same way that neurasthenia was a compilation of the concepts (especially of fatigue as a standard of value of modernity) that caught the interest of both the public in general and the scientific world of the time, chronic fatigue syndrome is built on the very timely conception of the biologically vulnerable individual in a threatening, highly rationalized living environment.

Neurasthenia and chronic fatigue syndrome share the basic theme of overburdening the body's own reserves. In both cases the overburdening is explained by

the demanding lifestyle of the times. Much of the past's connection between neurasthenia and the hectic pace of city living is also true of today's connection between illness and stress. To the 19th-century doctor the stressors caused reduced nerve energy, while to today's doctor it is a series of complex neural, immune, and endocrine processes. Neurasthenia offered the individual, in the same way as chronic fatigue syndrome, the right to be ill with something that was both medically verified and legitimate in relation to culture and social position. Both were – initially – associated with society's well-educated, overachieving groups. Neurasthenia was an acceptable and even honorable diagnosis for professional men. Beard reported that at least 10% of his patients were male doctors, and others were businessmen, bankers, lawyers, and government officials. The diagnosis therefore appeared to be an emblem of a select group (those with ambition, success, intellect, cultivation, sensibility), while it rescued the patient from negative labels like neurosis, hypochondria, or depression. Chronic fatigue syndrome initially had the same status, associated with a risk group characterized as well-educated, young career men and women. The strength lay here, also, in a biomedical interpretive model that allowed the patients to be spared stigmatizing psychiatric diagnoses.

Parallels between neurasthenia and chronic fatigue syndrome are also striking. The question is really how lessons learned from the earlier diagnosis can be used to help in understanding the later one.

One lesson is that when a diagnosis undergoes a change in class (from high to low) and gender (from male to female) there is a risk that it will lose status. As neurasthenia decreased greatly after World War I (without disappearing entirely), it had undergone precisely this change of class and gender. As a syndrome it was no longer associated with class-conscious refinement or with intellectual achievements. A number of symptoms could be separated out and assigned to other medical or psychiatric diagnoses. What remained was a mixture of unspecified functional symptom and expressions for mental suffering that seemed increasingly antiquated, especially the fatigue. As time went on the diagnosis disappeared from the public mind.

We can speculate similarly about what will happen to chronic fatigue syndrome. If the parallel with neurasthenia continues, it would mean that this diagnosis will eventually disappear, and for the same reasons: the syndrome is too unspecific, scientific medicine is not able to identify a biological sign, it is no longer culturally acceptable, or it is swallowed up in new illness names.

It can also be claimed, however, that the diagnosis has already been replaced by another one that is better adapted to the acute social set of problems – burnout.

### 1.7

#### **Burnout and Modern Society in 2000**

The concept of burnout has, interestingly, never been associated with a primary biological cause. It has instead been analyzed as a syndrome produced by society, labor organization, or the vulnerable relationships between people, mainly those in the professional spheres.

The rise of this diagnosis has been dizzyingly rapid. During a period of a very few years around the turn of the century in 2000 it appeared from relative anonymity to reach epidemic levels, primarily as a threat to whole labor markets. In Sweden, it was reported that every other teacher was at risk of burnout. Business people, stockbrokers, doctors, and high achievers linked to the expanding field of information technology (IT) were other groups affected. Never has an illness been so openly connected with society itself.

One approach is also to interpret the phenomenon via a greater social diagnosis, that of an achievement-, control-, and tempo-incited culture characterized by labor organizations that are increasingly anorexic, in which fewer and fewer must do more and more. Old structures distinguished by stability, security, and inertia seemed to be replaced by neurotic cults of change, manic corporate cultures (“funky business”) and short project jobs. Individual performances were pressured. Employers demanded not just competence, involvement, and independence of their employees, but also flexibility and accessibility. The individual expected, in turn, quick and visible rewards. No one had time anymore for the old coffee breaks and socializing. New technology required new knowledge as well as uninterrupted accessibility; it was necessary to adapt oneself to a continuous flow of information and communication, even a new time-and-space conception.

A second approach is the medical one. Burnout is defined as a condition of illness, and not as a feeling, a rebellion, a cultural criticism, or a healthy reaction. Feelings of inadequacy and the body’s spontaneous resistance are assigned to the only dimension that lends legitimacy – the field of medicine. Of course there is also a concrete medical aspect to this. Physical and mental stress as well as exhaustion beyond the possibility of recovery create not just fatigue but also weakened immunity, vulnerability, and sleep problems; these in turn open the doors for negative events in the body. We concentrate for a major part of each day – whether intellectually or as consumers of media information, with health and exercise activities, or with entertainment and adventure. The demands on us are many; they include knowledge, skills, and enthusiasm, as well as good health, charisma, creativity, and success. Our work, marriages, children, homes, bodies, and our own beings – all these can be made into projects in eternal motion toward change, refinement, and perfection.

In this connection we might ask ourselves whether burnout isn’t just a name for a problem that doesn’t have anything at all to do with illness. “People aren’t angels,” wrote a well-known Swedish political economist in a 1980s article that attracted widespread attention, referring to that decade’s increasing frequency of sick leaves. They are, instead, rationally calculating beings who take advantage of the welfare system when they can to optimize their own life projects. Interpreted this way, the epidemic burnout would actually be about the dream of a work-free income, of a narcissistic culture that seeks pleasure – not overwork – and views the illness label as a way to avoid the demands [9].

But we can also examine more constructive explanations. One is to search in the syndrome’s own history. Keying in the word “burnout” in a bibliographic search program gives rapid results: the entire first wave of literature was produced in the

USA around the mid-1980s. Christina Maslach's pioneering work *Burnout* was published in 1982, and was quickly followed by others. It gives the definition and the clinical criteria, including physical, mental, and emotional exhaustion, uneasiness, and lack of empathy. The diagnosis was initially created for people in the caring professions, e.g., social workers, nurses, and therapists, who in dealing constantly on a personal basis with others' weaknesses, were drained of their own energy.

Their reactions were to burn out; the simile was that of a burning match as it blackens, turns to ash, and then to nothing. Some people also claimed that the burnout syndrome could be divided into three stages that corresponded to the three degrees of burn injuries. The first-degree burn is characterized by short-lived, reparable damage. The second-degree burn is more painful, causes tissue damage, and takes time to heal. The third-degree burn causes very great pain, serious tissue damage, and deep scarring, and requires an extended healing process.

Burnout was thus already a well-defined diagnosis in the 1980s, but it never caught on outside the USA. One explanation lies in the personality type with which it was identified – individuals who were adaptable, had low self-reliance, and were sensitive and subject to feelings of guilt. Burnout was thus hardly a diagnosis suited to the financial achievers, the hungry market people, or the sophisticated IT people who were then just starting out. There was instead another diagnosis with similar symptoms that was popular during the 1980s, one that was indeed associated with the high achievers: chronic fatigue syndrome.

It is no great exaggeration to say that the status of an illness is determined by the status of those who have the illness. Some typical such candidates have been elite males with type A behavior (overstrain, neurasthenia, myocardial infarction), as well as the outcasts of society such as homosexuals or drug addicts (venereal disease, tuberculosis, AIDS). The victims of burnout in the 1980s belonged to neither of these groups. They were feverish workers in the caring professions. And they were mainly women.

Once again we see an illustration of how a diagnosis must mesh with contemporary cultural codes to attain real success. It was as though the spectacular 1980s demanded spectacular illnesses. The mass media devoted intense interest to a new kind of illness that was connected with the period's atmosphere of crisis, catastrophe, and threats. These included mercury poisoning, electricity and display screen sensitivities, and pain syndromes. There was talk of sick buildings and sick water, of killer streptococci and aggressive viruses, and of course of AIDS. The world appeared to be ill, and so did we.

It was as though the gray, unglamorous burnout didn't fit into the pattern. The diagnosis wasn't taken seriously until the front lines of society – the high-achieving intellectual workers like teachers, doctors, and IT consultants – appeared to be victims. But this, in turn, was not possible as long as burnout was classed as an illness affecting those with low self-reliance and depressive personality types, primarily of the female gender, i.e., in an interpretive model that laid the blame on the inadequate individual. What was needed was a redistribution of the blame. It was not until this blame was placed on the actual labor organization and a social di-

mension, or in other words, on a cause external to the individual, that burnout became more popular.

## 1.8 Conclusion

From a historical perspective, fatigue related to stress was intensely discussed around the year 1900 as well as around the year 2000. As a symptom it has been given different diagnostic names, first of all neurasthenia, then chronic fatigue syndrome and burnout. The diagnoses all have fatigue and weakness at the centers of their clinical pictures. This fatigue can be specified on several levels, from stress-related fatigue to exhaustion and long-term chronic fatigue feelings, to a more serious level as in overstrain and burnout. One key factor is that the fatigue is not primarily related to physical exertion, but rather is described as mental, emotional, or existential, and is associated with feelings of inadequacy and an imbalance between demand and ability. In all cases there is thus a relationship with stress.

A comparison between the key medical concepts formulated in 1900 and in 2000, to describe the delicate interaction between the individual and the demanding, unstable world, also shows clear parallels. Nervous tension corresponds to stress. Neurasthenia and overstrain correspond to chronic fatigue syndrome and burnout. In the same way that nervous tension could lead to overstrain with neurasthenia as the clinical manifestation, stress can lead to chronic fatigue or burnout. The depersonalization and emotional exhaustion that is seen as typical for burnout syndrome is also discussed in connection with the typical neurasthenia patient.

*Diagnoses thus mirror more than physiological and biochemical events in the body. They project the contemporary cultural values and social codes, class and gender structures, and expected relations between individual and society.* This is true on both the individual and collective levels. Certain conditions of social anxiety seem, for example, to be inseparable parts of the actual endeavor to be modern. These include stress, restlessness, fatigue, alienation, fragmentation, and nostalgia (and this last may be the reason for the wave of nostalgia sweeping through society today just as it did at the last turn of the century).

The high status of fatigue in the Western world's self-image around 1900 highlighted a deep cultural anxiety related to the rapid changes due to industrialism and the market economy. Combined with fatigue's actual meaning in industry's definition of efficient manpower, the fatigue problem was incorporated into various medical interpretive models. It also entered into other scientific theses, for example the one concerning the constancy of vital energy or the one on modernity as an energy-draining process. Medically legitimized and reformulated into a diagnostic name (neurasthenia), the overstrain image was brought back to the culture (the accepted set of norms and conceptions), where it was exposed by the mass media to offer the individual interpretive models, meaning, and context for subjective illness.

The question is whether an equally sweeping analysis can be attempted for the relationship between perceived fatigue and the society of today. During the 20th

century the individual was encompassed gradually by a dramatic process of welfare development. After World War II, a state of social and economic depression, unemployment, and decreasing birthrates was turned around in most Western countries. In Sweden the Social Democratic drive and a series of central social policy changes built the “People’s Home,” a Swedish model of stability, equality, and optimism about progress. When the stress concept was redefined in the 1940s, it was primarily a scientific issue, though one with a broad impact. It was not yet of immediate interest as an instrument of social analysis, although during the 1960s quite a bit of attention was paid to the unhealthy effects of haste.

It is no great exaggeration to maintain that stress first enters the public consciousness when a new social situation lends the concept a new, well-defined role.

This point was reached in the 1980s, when an older welfare model was dismantled and the industrial society’s stable structures were replaced by a market-controlled economic model with mobility, globalization, and freedom of choice as its standards. A vacuum of values occurred as new information technology and rapid communications confronted the individual with great demands. Speed, adaptability, and flexibility became expected qualities within the increasingly rationalized labor organizations. The rise of welfare, a favorable insurance policy (though marked by large national differences), and a new work ethic had simultaneously increased the possibility of expressing inner reluctance as illness. Sick leaves and consumption of medications showed dramatically increased frequencies. A spectrum of new syndromes arose, reinforced by the brutal reminder of AIDS of a loss of biological control. Medicine met the raised illness frequency with increased resources and great openness, and also with increased medicalization in the form of new disease names connected to viruses, toxins, radiation, and stressors. Pain, depression, and fatigue could be placed in meaningful patterns.

A second question is how this process looks when new syndromes appear, and are given names and definitions. Historical and contemporary case studies of individual diagnoses (neurasthenia and chronic fatigue syndrome) indicate that consensus on an illness is reached by negotiation between different players. The doctor’s knowledge and laboratory tests create options for a new category of illness or a new significance for a new category of illness, but do not decide the social part of its progress and spread [10].

Thus, there is an aspect of every diagnosis that can be called the social construction of disease. This also doesn’t mean that anything can be called a disease or that the disease doesn’t, in fact, exist. It indicates rather that the identity an illness possesses – from its traditional medical identity (cause, diagnosis, prognosis, and treatment) to its meaning for patients, doctors, and the surroundings – is never a neutral consequence of biological factors. It functions instead as a social process with several participants, including doctors, patients, the health insurance system, the pharmaceutical industry, the media, and the cultural codes that constantly re-define what will be permitted to be called sick.

This means that illness always exists in a medical dimension, but that its sociology and epidemiology must be analyzed on a greater social stage. It is here that the images and myths are created, and here that the legitimized, opinion-forming processes are acted out. Seen from this perspective, we can assert that the concept of

stress has been transformed from a psychophysiological condition to a simultaneously explanatory, forgiving, and challenging social diagnosis.

A final question is whether the historical perspective offers any useful knowledge. At the turn of the 19th century collective and individual fatigue was interpreted as an immediate, physiologically measurable effect of external stress. Fatigue was defined as the limit beyond which an individual in the industrial society could not be forced, and therefore also as the limit beyond which social demands on the individual became counterproductive. The machine metaphor was important; if the person/machine was run so hard that it broke down, then the effectiveness that was the specific goal of production was counteracted. This association inspired very intensive research on both the fatigue that was directly caused by labor organizations and working conditions, and that caused by the contemporary cultural codes, including competition, performance demands, superficialized human relations, and narcissistic individualism.

If the same conclusions were to be drawn today it would mean that fatigue, under its time-adapted name of chronic fatigue syndrome, burnout, exhaustion syndrome, or any other, could be interpreted as a limit for the individual's physical and mental adaptability. An action program aimed at negative labor structures could be formulated. It could also be aimed at negative cultural values, loss of collective identity, and the cult of the young, invulnerable body.

Modern fatigue science focuses specifically on the sophisticated interactions between, on the one hand, the body's neural, hormonal, and immunity systems, and on the other hand the individual's life-conditions, and social and gendered structures. This means that the problem is not just a medical concern, but ultimately a political and humanistic responsibility.

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