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ACCUMULATION OF CAPITAL
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WORKING PROCESS, ACCUMULATION OF CAPITAL AND ITS IMPACT ON HEALTH¹

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INTRODUCTION

This reflection was inspired by the works launched several decades ago by the Labour Process Group (LPG). In this document, we will try to show the direct relationship between, on one hand, the social and technical division of work that prevails in work processes and, on the other hand, the accumulation of capital and the health of workers in an integral sense.

There are already validated knowledge about the consequences of working conditions and environment on physical health, given the frequency and seriousness of work accidents and occupational illnesses that cause pain, occupational disability and deaths. But there is no full conscience yet of the impact that changes in working processes that spread as consequence of the crisis of the productive system -that emerged in the early 1970 and of the financial crisis that took place in 2008-, have on psychic and mental dimensions. We are talking about a phenomenon that has become invisible and naturalized due to theoretical inadequacy, shortage of researches and the refusal of its collective dimensions and its individualization, which seeks its cure in the psychological treatment, without perceiving that, eventually, workers somatise pain and suffering, which causes numerous illnesses.

Our analysis is nourished by research projects developed by a multidisciplinary team at the Scientific and Technical Research Committee (CONICET, by its acronym in Spanish) and in several national universities (Neffa, 2015, 2017).

WORK CENTRALITY AND ITS MEANINGS

According to Karl Marx: "Labour is, in the first place, a process in which both man and Nature participate, and in which man of his own accord starts, regulates, and controls the material re-actions between himself and Nature. He opposes himself to Nature as one of her own forces, setting in motion arms and legs, head and hands, the natural forces of his body, in order to appropriate Nature's productions in a

form adapted to his own wants. By thus acting on the external world and changing it, he at the same time changes his own nature. He develops his slumbering powers and compels them to act in obedience to his sway"(Marx, 1971: 215)².

The result of human work materialises and remains even after its creator's death, that is to say, it transcends him in time and space. Therefore, workers play a decisive role in creating value, as they are builders of history.

There are several theories that try to explain which the source of goods' value is. Most of them are of subjective nature and they are concerned with satisfaction, pleasure or the utility certain good offers to its consumer. In other cases, value would objectively represent the relative shortage of a good. Market has the role of determining prices, seeing them as the expression of the estimated value and forgetting that market takes only into account the solvent demand.

Facing these and other theories, a certain consensus affirms the need of identifying an objective source of value that doesn't depend on tastes or fashion -necessarily variable- neither on the purchasing power of the eventual consumers.

David Ricardo was the classical economist that sensed the labour theory of value that served as a basis for Marxist thought, who will make it part of his own and will develop it through a systematic formulation. The most direct references on the foundations of the theory of value (Marx, 1971) are found in the first volume of *The Capital*, where working time and the effort made to produce value are taken into account.

The power of work to create value explains its centrality within the mode of capitalist development as well as the configuration that work processes assume to increase and avoid the drop in the rates of profit, causing the confrontation between capital and work.

² All the quotes of Marx (1971) are taken from an edition in spanish of the book "Capital" but for the purposes of this paper we have translated them to english, using Marx (1887) as a reference.

Goods have value of use, but also have value of exchange, due to the fact that they are the materialization of the abstract human labour.

Regarding the *value of use*, labour embodied in a commodity counts only *in qualitative terms*. On the contrary, regarding the *magnitude of value*, the value of exchange counts only *quantitatively*. In the former case, it is about "How?" and "What?" of the work, while in the latter, what is important is "How much?" work has been used, or its duration, "How long?" (cf. Marx, 1971: 99).

The use of workforce in the course of a normal day of work creates a certain quantity of goods and services, but its value surpasses the value of the necessary goods and services to reproduce the workforce. The extension of the working day beyond the point in which work is equivalent to the value of the workforce originate a "*surplus value*". Then, this "*surplus value*" constitutes a need in order to guarantee the *simple and expanded reproduction* of capital, no matter which is the dominant mode of production in each social formation, although there are fundamental differences among them regarding how it is generated, who appropriates the surplus, how it is assigned or distributed and which is the criteria for this allocation.

Productive labour is the work that creates surplus value for the capitalist, work that becomes capital.

If work becomes more complex, it requires a workforce with higher schooling levels, professional training, experience and its reproduction requires more time of work, therefore, it represents a value higher than that of the simple workforce.

Concrete work is related to the *value of use* and means that every commodity is produced by a certain and particular type of work, which also transfers to the product the value of the used inputs and production assets.

Abstract work is related to the *value of exchange* and represents a quantitative expense of the human workforce that allows to be recognised as work in general and it is the one that adds value. However, the source of value is not the common individual work but

the *labour socially necessary*, i.e., the average time historically required to produce a certain commodity.

Then, if work is the source of value, which is the value of work? Marx (1971) distinguishes between *labour* and *labour power*. Labour is the result of the use of labour power. He says that "By labour-power or capacity for labour is to be understood the aggregate of those mental and physical capabilities existing in a human being, which he exercises whenever he produces a use-value of any description" (Marx, 1971: 92). "This productiveness [*productive power of work*] is determined by various circumstances, amongst others, by the average amount of skill of the workmen, the state of science, and the degree of its practical application, the social organisation of production, the extent and capabilities of the means of production, and by physical conditions" (Marx, 1971: 92).

Productive power always yields *equal amounts of value* during *equal periods of time*, but yields different quantities of values in use; more, if the productive power rise, fewer, if it falls (cf. Marx, 1971: 56). "In general, the greater the productiveness of labour, the less is the labour time required for the production of an article, the less is the amount of labour crystallised in that article, and the less is its value" (Marx, 1971: 93). "The value of a commodity, therefore, varies directly as the quantity, and inversely as the productiveness, of the labour incorporated in it" (Marx, 1971: 93). This is the reason by which Capitalism tries to "shorten the labour time", to increase the intensity of labour and to reduce "dead labour".

This draws attention to the fact that the use of labour power doesn't only generate value, but rather it generates fatigue and it causes for workers exhaustion regarding the physical effort, the adopted postures and gestures, as well as the supported psychic and mental load. When work load exceeds worker's resistance and adaptation abilities and he has not recovered from fatigue (through healthy food, sleeping and rest hours, familiar life, recreation and social life), workers are predisposed to suffer professional illnesses and work accidents that can generate a

labour inability and his death. ILO statistics, provided by the Member States, show its growing magnitude.

In order for a thing to have value, it should be an object aimed to a use, i.e., the object should have a utility, to must be use values for others, it must have *social use values*(cf. Marx, 1971: 93).The utility of things must be analysed in its two dimensions: the qualitative and the quantitative ones. The utility of a commodity is what makes of it a use value, which gives it its properties as long as commodity, properties that cannot exist outside of her. This utility doesn't depend on if it has taken a lot of work for man or not.

Every labour implies an expense of human labour power in a particular way and aimed to an end. In this condition of useful and concrete labour, it produces use values. But as long as they are exchange values, commodities differ regarding the amount of (abstract) labour incorporated in them(cf. Marx, 1971: 93). That amount of labour is measured without considering the form through which labour power has been expended.

The value of commodities consists not only on the labour time employee to produce them, but also on the value that had been incorporated to the used raw materials and instruments of labour: these values are also transferred to the product. The value of the used production means wears away, and it should be redeemed.

LABOUR AND VALUE

The value of labour-power resolves itself into the value of the means of subsistence necessary for the conservation of his holder.The means of subsistence of the labourer must therefore be sufficient to maintain him in his normal state, to recover himself from fatigue and to reproduce his labour power (cf. Marx, 1971: 251).

The volume of the indispensable human needs -such as food, education, health care, housing, clothing, heating, among others-, vary according to the climatic and other physical conditions of each country

and are themselves the product of historical development, and depend therefore to a great extent on the degree of civilisation of a country, more particularly on the conditions under which, and consequently on the habits and degree of comfort in which, the class of free labourers has been formed (cf. Marx, 1971: 251). Therefore, in a given country, at a given period, the average quantity of the means of subsistence necessary for the labourer is also known (Marx, 1971: 251).

As the owner of labour-power is mortal and his appearance in the market is to be continuous, the seller of labour-power must perpetuate himself procreation. Hence the sum of the means of subsistence necessary for the production of labour-power must include the means necessary for the labourer's substitutes, i.e., his children... (cf. Marx, 1971: 252), as well as the acquisition of skill and hardiness, a special education or training for a specific labour activity and, thus, become a developed and specific labour power, which, on the whole, costs an equivalent in commodities of a greater or less amount (cf. Marx, 1971: 252).

Some of the means of subsistence are consumed daily, others are consumed weekly, monthly, yearly; but in whatever way the sum total of these outlays they must be covered by the average income, taking one day with another(cf. Marx, 1971: 252).Knowing the value of the labour-time necessary for the production of a commodity, which consumption does not end in a unit of time, implies to make the corresponding calculation according to the expected useful life.

The minimum limit of the value of labour-power is determined by the value of the commodities required for the renewal of his vital energy. If the price of labour power falls to this minimum, i.e., if it falls below its value, health deteriorates and labour power undermines (cf. Marx, 1971: 253).

The exchange value of labour power is fixed before it goes into circulation, since a definite quantity of social labour has been spent upon it; but its use value consists in the subsequent exercise of its force and will be appropriated by the buyer of the labour power when he uses this labour power (cf. Marx, 1971). Thus, labour power is only payed

once it has been exercised for the period fixed by the contract: day, week, month. The use-value of the labour-power is advanced to the capitalist: the labourer allows the buyer to consume it before he receives payment of the price; he everywhere gives credit to the capitalist, who pays him but just after using it (cf. Marx, 1971: 254).

As all commodities, its value can be measured by one and the same special commodity, and the latter be converted into the common measure of their values, *i.e.*, into money. Money as a measure of value, is the phenomenal form that must of necessity be assumed by that measure of value which is immanent in commodities, labour-time (cf. Marx, 1971: 158).

THE PRODUCTION PROCESS

We can distinguish between the *labour process* and the *process of producing surplus value*, but it is the same, single and indivisible, production process. In the capitalist mode of production, the process of producing surplus value prevails over the labour process.

In the labour process, raw materials are modified and information is processed to transform them in products or goods that have a use value, because they satisfy a necessity. The labour process is the specific act where man's activity makes, with the help of the instruments of labour, a voluntary modification of the objects and raw materials in accordance with an aim. When producing this use value, the labour power disappears (Marx, 1971: 262).

Therefore, labour process may be defined as the articulation of various elements:

- a. the personal activity of the labourer, *i.e.*, the use of the labour power;
- b. the object on which the labourer exercises his activity or work, *i.e.*, the goods offered by land, raw materials, intermediate products, replacement or spare parts, semi-finished products, etc.;

- c. the instruments through which labour is exercised, such as tools, machines, workshops or work facilities, as well as, by extension, the system of production organisation. That is to say, everything that makes labour possible.

In order to happen, every labour process requires an energy contribution as well as the information and knowledge for guiding labour toward an aim. The worker is the subject of the labour process and he is also the active element. The objects and the instruments of labour, according to its role in the production process, are the objective conditions of the production process.

In the established wages' relationship, by means of a formal or implicit labour contract, the worker remains subordinated, he loses autonomy, he is used and controlled by the capitalist so that there is not unproductive labour time, but his product no longer belongs to him, because he has agreed a wage. The capitalist veils so that labour is carried out in a certain way, objects and instruments of labour are used properly according to the assigned purpose, so that raw materials are not wasted and instruments of labour do not deteriorate. The capitalist's objective and logic is to produce commodities whose value is greater than the sum of the values of the inputs, the instruments of labour, and the labour power paid in the market.

The "value of change" of labour power as a commodity is given by the labour time socially necessary for the production of means of subsistence.

The "value of use" of the labour power as a commodity has the particularity that it is creative of value (of change) and of more value (surplus value) than the one it already has. Once used, the use value doesn't belong to the worker anymore, because the capitalist has paid for him the value of a day of labour power to be entitled for using it during that time. But in terms of time, the daily sustenance of labour power costs only a part of the labour day, "while the very same labour power can work during a whole day" and "consequently the value which its use during one day creates" is greater than the daily value of the labour power, i.e., *its reproduction cost*(Marx, 1971).

The worker adds a new value to the object of his labour by means of the addition of a certain amount of labour. In turn, the values of the consumed production means are constituent parts of the product value, they are conserved by their transfer to the product, when being made the work process. The worker adds new value and he preserves the old value (Marx, 1971) that was crystallised in the labour subjects and in the used instruments of labour. Simultaneously, the labour power of the labourer creates value under certain condition, while under another condition preserves or transfers the value of the subjects and instruments of labour to the product, and he adds value as soon as abstract social labour in general, because it lasts a certain time. In the labour process value is only transferred from the means of production to the product insofar as the means of production also loses, along with its use value (due to the waste as long as means of production), its value of change.

In the labour process, the "raw material" that constitutes the substance of the product, changes the form with which it entered to the labour process as use value. But the instruments of labour preserve their original form when creating the products, and labour wastes their use value, and the value of exchange it had is transferred to the product; it is by means of that consumption that labour creates new products that, nevertheless, cannot add more value to the product than the one the already possess.

In the production process, the part of capital that becomes object and instrument of labour doesn't undergo any quantitative alteration of value. It is *constant capital*. On the other hand, the part of capital used to pay wages and which becomes labour power, undergo an alteration of value in the process of production because it both reproduces the equivalent of its own value, and also produces an excess, a surplus-value, which may itself vary, may be more or less according to circumstances, which is called *variable capital* (cf. Marx, 1971: 295).

LABOUR PROCESS AND ITS IMPACT ON WORKERS' HEALTH

The implicit hypothesis in our research is that the implications of work conditions and environment (WC&E)³ of the psychosocial risks at work (PSRW)⁴ and its impact on worker's health, are strongly determined by the content and organisation of the work process developed during the activity. Let us recall that a factor of risk (danger) is the inherent feature or the potential ability of an agent, process or situation (included work environment, work organisation and labour practices with negative consequences for the organisation) to cause damage or adverse effects for the health at work (ILO, 2016).

Risks for health coming from the environment where the activity is carried out can be physical, chemical, biological, technological and safety factors, or caused by natural catastrophes and ecological imbalances. The working conditions (resulting from socio-technical and organisational factors) can compensate or intensify these risks: poor labour organisation, extended duration of the labour hours, a remuneration system that generates more fatigue, non-ergonomic instruments of labour, absence of devices for preventing risks, precarious employment and unemployment threats and the obstacles to participate in the improvement of the working conditions.

Worker must cope with those work environment risks, with the physical demands (to make efforts, gesture, and adopt postures), with the mental and psychic ones (relational and affective aspects) which are naturally sources of fatigue. Physical fatigue recovers with feeding, healthcare, family life, physical or sport activity, rest, sleep. But if the amount and rhythm of work is extended in time and the period for recovery is short or of poor quality, recovery is partial or insufficient and may cause sufferings, physical pain, work accidents, labour inability and predisposition to developing diseases. Life expectancy and the state

³ Known in Spanish as “CyMAT” by its acronym (Condiciones y Medio Ambiente de Trabajo).

⁴ Known in Spanish as “RPST” by its acronym (Riesgos Psicosociales en el Trabajo).

of health depend on many factors but, ultimately, on the organisation and content of working process, on work conditions and environment, on the duration and intensity with which labour power is used. It is worth noting that, since the last productive and financial systems crises, physical workloads are moderating due to the use of more efficient new instruments of work. The Economically Active Population's proportion (EAP) who works in the tertiary or services sector (education, health, business) and in the public administration, where the content of work is not mainly manual, is increasing. However, the psychic and mental workload has been intensified and, finally, this is somatised with its consequent impact on health.

The concept of Health has been rapidly evolving from a simple approach that conceived it as an emptiness: *the absence of disease*. World Health Organisation (Who) recently defined mental health more broadly: "*Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community*" (Dejours & Gernet, 2012).

According to the most significant modern conceptions, psychic and mental health is not a state, neither the result of tensions between stimuli and responses; it depends on a dynamic and unstable balance among the worker's need for development, his/her resilience and adaptive capacities to face physical, psychic and mental work demands, that impose him restrictions or pressures to his activity in order to achieve a certain productivity and quality (Dejours, 2012). "*As long as work environment constitutes an important part of the total environment in which man lives, health depends on work conditions*" (Epelman, quoted in Neffa, 2015).

The process of work must respond to multiple rationalities. The objective ones: a) the production of goods or the provision of services; and b) the creation of value and surplus value. And there is also a subjective rationality: not to generate damages and to preserve worker's health, as he is the one who creates value. But these are contradictory

rationalities and, within the actual mode of production, generating value is more important than the other rationalities(Gollac y Volkoff, 2013).

The organisation of the working process and the labour power management are defined by the businessman, but its implications over workers' life and health are not always visible.

Until the last capitalism crisis (the productive system crisis at the beginning of the decade of 1970 and its continuation in the financial crisis of 2008), those repercussions used to cause pain and were observed on the worker's body, and they first measured the frequency and severity of workplace accidents, occupational diseases, the percentage of resulting disabilities and deaths caused by these causes. But, from then on, changes in the development mode and the new forms of organizing the company, production and labour, increasingly demonstrated its subjective dimension, which, by the way, it is not easy to be measured with objective indicators: psychic and mental suffering undergone by subjects.

However, an appropriate prevention policy has not been adopted yet, neither the related regulation has been upgraded nor updated as *the association or causal relation between work, health and disease is not seen for a number of causes*(Gollac, Castel and Jabot, 1987):

- employers ignore or invisibilise the impact of labour risks and prefer to pay in a monetary way the consequences, rather than to prevent the emergence of risks.
- the weak level of workers' awareness, training and information goes against the creation of mixed committees of health, safety and working conditions.
- the lack of scientific research on that relationship and the existent ones fallen in the public domain,
- the action of *lobbies*(such as medicinal laboratories) in an attempt to curb researches that may create restrictions on the use of certain means of production and on the handling of toxic products.
- social prejudices on the part of occupational traditional physicians and engineers who think that risks are impossible to

eliminate and that workers may pretend to be sick and not going to work.

- the effects on health resulting from exposure to some risks are known much longer after, as it was the case with occupational cancer.
- in the research, the “selection effect”, which underestimates the risks, plays a role: workers hold a post while they resist, but, once the interviews or questionnaires are carried out, those who couldn't face risks are no more occupying their post and are no longer accounted.
- sometimes, workers contribute unwittingly to underestimate the relationships between labour and health, accepting the payment of a risk premium (night or shift work, unhealthy works, etc.) without looking for its elimination.
- in Argentina, workers rarely have the collective chance to speak freely and in detail about the symptoms and disturbances they feel and which are attributed to work.
- the current legislation is incomplete and lagged, not only it ignores many professional illnesses, but rather it ignores the psychic and mental risks, it points out the working risks instead of pointing out the health of those who must cope with them and it doesn't recognize workers' right to participate in prevention.

On the other hand, the dominant medical model regarding labour health considers that the objective factors of the work environment are the cause of damages and pain caused in the physical and physiologic integrity of the organism and it underestimates the impact on the subject. Impact of work is considered only on individual subjects, as if they were separated each from another, although the relationship among mental health and work goes through the whole work community. They consider that work is pathogenic, it naturally causes damages to the organism and this is related to the individual inherent weakness, which pre-existed to the emergence of the disease.

Meanwhile, psychiatrists have given priority to private and individual sphere, at the expense of considering them as subjects that maintain

social relationships. On the other hand, a traditional materialistic conception trivially considers that singular subjectivity is just the reflection of production relationships: then, human beings would be passive, they would be overdetermined by economy and technology, with little space and means to achieve their autonomy and to claim for prevention and repair, because they would be alienated.

For the traditional medicine, the wear down of labour power is analysed as workers' natural aging process or as a disease, without directly relating it to the wear down caused by the labour activity. But epidemiological studies have shown that life expectancy (particularly in men) is very different depending on the branch of activity, phenomenon that is explained by the wear down caused by the global workload, its intensity and the prevalent work environment and conditions. In other words: all workers are not equal in terms of their death. Diseases are expressed in the body and in the psychic and mental functioning when resistances and defences weaken and appear ineffective against a threat, an aggression or a change in the context. But people can resist and defend themselves, depending on their trajectory, their state of health, the occupational history and the personality structure of each individual.

THE (UNFINISHED) EVOLUTION OF WORKING PROCESSES

Based on this theoretical framework, we have investigated the evolution of labour processes that have coexisted in the country in a heterogeneous way having impacts on PSRW.

1.-In the primitive period of self-subsistence economies, life was very hard due to feeding difficulties, the need to protect from inclement weather and threats of the animals and of enemies. Labour was not socially nor technically divided, there was just a labour division according to age and gender, the family or the clan was in charge of carrying work out. There were not pressures for producing above the requirements and trading the surplus, neither there were external restrictions that prevented to interrupt -during labour hours- work to

recover from fatigue caused by effort, gestures and productive postures, and the inadequacy of instruments of labour for the production of the consumer goods necessary for survival.

2.-During the slave-based mode of production, there wasn't a wage relationship, but the relationship between capital and labour assumed brutal forms, included the forced immobilization by means of chaining for avoiding slaves to escape, because the master had the slaves' property and the laws authorized him to use the slaves, to punish them and even to take their life. When the accumulated fatigue generated for the slaves the necessity of pauses, threats and physical damage was used to punished those interruptions of labour activity. The extraction of surplus value was proportionally high, workload was extreme and the deterioration of physical health accumulated shortened life expectancy. Even the great Greek philosophers Plato and Aristotle naturalised slavery and justified its existence, given the role it played for their subsistence, care functions and because slavery enabled the flowering of civilisation. The later invasion and "barbarians" domestication and the development of agriculture, where children of slaves and the victims of the military expansion were incorporated, allowed moderating those demands during the Roman civilization. Progressively, menial work was used in large agricultural exploitations in charge of the nobility. This mode of production lasted for long, it coexisted with others, although it was losing effect and legitimacy. It will only be questioned much later in the North American society as a result of the secession war (second half of the XIX century). But, in all cases, a deterioration of the physical, psychic and mental health of those workers took place.

3.-During the Middle Age, an important change took place in several European countries when urbanisation, the improvement of life conditions and the new demands of consumer goods created the conditions for the strengthening of handcrafted work and the emergence of the trade corporations that grouped teachers, journeymen and apprentices of a branch or profession. The professional training acquired over several years by means of the practical experience, the imitation and the submission to the orders and instructions of the experimented mentor, generated the conditions for a work that

integrated design and execution, where everyone in the workshop should perform the same tasks according to their degree of skill and, therefore, progressing up within the guild was possible if they passed the theoretical and practical tests before a tribunal comprised of the teachers of the profession in a certain city or region. Rigid norms regulated the entrance, promotion and graduation of the different categories, as well as there were strict limits for the length of the labour day, working and resting or leisure days, wages' level and contributions to the mutual societies (the current social health insurances and the social security have their origins there), and for changing the occupation or to move from town. The number of working days was reduced because of inclement weather and numerous religious or civil festivities. The use of labour power was conditioned by the rigid prevailing ethical and religious norms that worked as a curb for exploitation and injustices, stimulating competition according to the degree of perfection of the work placed in the market. And there is something that will vary strongly since the beginning of the capitalist mode of production: the master had the authority inside each workshop to decide how the organization of the working process should be. Master's legitimacy didn't rely on the ownership of the instruments of labour and the facilities of the workshop, but on his mastery of the craft, his local reputation and his ability to transmit skills and competences. When these rules began to be infringed, the period of decadence began (use of nepotism for accessing other categories, smaller demands regarding products' quality, tricks regarding raw materials and prices, conflicts among workshops, etc.). The *coup de grâce* was the Le Chapelier Law, adopted immediately after the French revolution that dissolved corporations because, as they were against "the freedom of work", limited the expansion of capitalism.

4.- The capitalist mode of production (CMP) derived from the convergence of several factors: tools and inventions that increased the productive force of work, the use of wind and hydraulic power, knowledge on physics and chemistry to transform raw materials, the flood of precious metals that had been plundered from the recently discovered colonies and a deep cultural change resulting from the

religious reformations: justification and limitless use of wealth, individualism, interest loan, recruiting of salaried staff. Thus, the conditions for the emergence of the CMP were met, first in the commercial activities and then in the industrial sector: a) the existence of the capitalist, sole owner the means of production and with the chance of hiring simultaneously a considerable number of workers, b) the existence of *a labour power free from its relationships with land, as it was the case during the servitude in the feudal mode of production, without other means of subsistence*, susceptible of being sold and bought by a period of time like a merchandise due to the elimination of the legal restrictions that impeded the free mobility and hiring based on the labour relationship and to limitations to use slave labour; c) the vital necessity of labourers to sell their labour power to survive since they weren't able to subsist as before, using the outputs of the agricultural production, d) the power imbalance between the capitalist, who has the power and the authority to decide, on the one hand, and the wage-labourers, who rest subordinate and disciplined as for the organization of the work process, subject to fine and deductions from wages, d) the consolidation of the wage relationship, an institution that regulates the use of the labour power (the employment) and the reproduction of the labour power (direct and indirect wage) and that justifies capitalist's appropriation of the wage-labourer product, as a counterpart for wages.

Capitalism penetration and expansion caused the destruction of the former types of production, "freeing" labour power, which didn't have any other option but to offer themselves as wage-labourer under the mentioned conditions, avoiding being considered as vagabonds, subjected to forced works and confinement (*workhouse*). As the corporations were abolished, labourers didn't have any institutional protection.

Labour force is "the aggregate of those mental and physical capabilities existing in a human being, which he exercises whenever he produces a use-value of any description" (Marx, 1971). The logic of capital production and accumulation is creating surplus value and preventing the rate of surplus value to fall: the absolute surplus value produced by means of the lengthening of the working hours and/or its intensification.

The relative surplus value is directly proportional to the productiveness of labour (Marx, 1971). Therefore, the produced commodity cheapens as do labourer himself.

The capitalist relationships of production rest, in definitive, on the absolute and radical separation among labour, "subjective" factor of the working process, and the means and work objects, "objective" factors of the process. This modality changes according to the development of the productive power and the increment of the organic composition of capital. The search for surplus value by these two means goes along the long term tendency of the rate of profit to fall, which incites capitalists to increase the mass and the surplus value rate to valorise their capital and to counterbalance that tendency.

Let's see this table to better understand:

Socially necessary labour time for its reproduction	Surplus labour, labour time that creates a surplus	Idle time
Variable Capital	Surplus value	
Or,	nt	vw
		T

"Idle time" ($T-vw$) is comprised by pauses or stops within the working day, due to bad labour organisation, or caused by fatigue which requires labourer's recovery within the same working day; in other words, the "porosity" of the working day.

In the long term, the tendency is toward the creation of an "industrial reserve army", on one hand, because there is an increase in the economically active population and in the people that moves toward the urban sector of the economy in the light of capitalism penetration into

agriculture and other primary activities and, on the other hand, because the organic composition of capital, that implies process innovations that substitute labour power, increases. According to Marx, in the capitalist mode of production, the limit of production is the full use of the productive capacity and not the full occupation of the labour power.

The existence of an “industrial army of reserve” keeps real wages in a more or less constant level. Real wages can vary and grow as productivity increases, but variation will finally depend on the correlation of the existent social power in a certain historical moment.

To increase the mass and the rate of surplus value, which is a necessary condition for capital valorisation and the reproduction of the capitalist mode of reproduction, the owners of the means of production can try to use some or several of the following strategies:

1. to increase labour time that creates value (vw) and/or the length of the working day (T),
2. to intensify labour rhythm without changing the other factors, shortening the gap between $T-vw$, i.e., avoiding “idle time” within working hours,
3. to rise labour productivity, by increasing the organic composition of capital with a rhythm higher than the falling of the rate of profit,
4. to increase the current labour productivity by means of the extreme labour division and/or new forms of work organisation,
5. to shorten the socially necessary labour time to produce the necessary commodities for reproducing labour power, by means of disqualification derived from technical and social labour division and labour power devaluation (achieved by increasing labour productivity in the productive area of consumer goods, or through foreign trade and unequal exchange),
6. to reduce “idle time” due to absenteeism, unscheduled breaks, a weak rate of use of the installed capacity of machinery and

equipment or to mismanagement of raw materials, spare parts and products supply, circulation and storage.

Technical labour division (in tasks) arises from an innovation in content and organization of labour. Pins manufacturing was the first activity where it was first studied. Adam Smith pointed that this was the starting point for studying the wealth of nations. In his words, “the greatest ‘improvement’ in the productive powers of labour, and the greater part of the skill, dexterity, and judgment with which it is anywhere directed, or applied, seem to have been the effects of the division of labour”, as:

1. it increases the ability for tasks’ specialisation and dexterity and intelligence,
2. it allows the better coordination of tasks and eliminates idle time due from passing from one activity to another,
3. it allows the invention of machines which facilitate and abridge labour, and enable one man to do the work of many (Cf. Smith, 2002: 91).

Adam Smith writes: “Men are much more likely to discover easier and readier methods of attaining any object, when the whole attention of their minds is directed towards that single object, than when it is dissipated among a great variety of things. But in consequence of the division of labour, the whole of every man's attention comes naturally to be directed towards one very simple object. It is naturally to be expected, therefore, that someone of those who are employed in each particular branch of labour should soon find out easier and readier methods of performing their own particular work, wherever the nature of it admits of such improvement” (Smith, 2002: 94). It also enables discipline and exercising greater control over the work of labourers when the aim is achieving an increase in productivity, it diminishes learning costs and time, but also leads to a *disqualification* of the directly involved labour power, since only some of the skills are used and, therefore, labour power can be purchased cheaper dissociated from his single elements than gathered in the ability of a single worker. The extraction of absolute surplus value combined to low rates of wages, a forced labour power mobilisation and increasing number of

urban unemployment. The final output was labour intensification and its impact on fatigue, and the resulting propensity to work accidents and occupational diseases with their consequent labour inabilities and death.

4.1.- During a short period of time, and especially in the United Kingdom, a novel form of labour division, the so-called "putting out system" was established. It entailed homebased work and one businessman bought the raw materials and allocated them to diverse qualified workers, and each one of them performed at home his own working process, just by himself or with the help of his relatives. That labour division allowed to use the knowledge of workers that had been suspended after the proscription of the corporate handmade workshops and to negotiate with each one of them the amount of remuneration and the product delivery terms. However, due to diverse reasons, this working process was unsuccessful (Marglin, 1974) although periodically it is materialised in new experiences.

4.2.-Manufacture was the successful and lasting modality. The capitalist built a location or facility and invoked, as salaried, workers who had been driven out from the agricultural sector or the handcraft workshops, so that they worked a long day with their own instruments of labour and earning poor wages. Control and discipline of numerous workers were made possible through sanctions, fines, salary reductions or, finally, dismissals for those who didn't respect "the workshop rules", which the capitalist unilaterally created and imposed, and which were attached to the interior walls of the location establishing the strict labour and behaviour norms. Their acceptance justified sanctions when orders were not respected, the amount of production was not fulfilled, when there were omissions and negligence, circulation without authorisation in that place, disrespects or fights among workers or against supervisors, or workers entered with alcoholic beverages into workplaces.

The *factory* arises later from the necessity of quickly increasing production to satisfy a growing demand that justified the incorporation of machines, which functioned in a synchronised way by means of a mechanical power, thus arriving to the industrial revolution. The machine becomes the active agent of production and the worker

becomes its servant and should adapt himself to its activity rhythm and its demands. The high cost of these instruments of work, its dimensions and requirements as regards energy put them out of the worker-artisan's reach and made impossible for the survivor workshops and manufacture to compete with new factories.

The systematic use of machines in the industrial production introduces the capitalist mode of production period of maturity. There is a fundamental change because the instrument or work tool has been incorporated to the machine and is managed by it and workers lose autonomy and they are progressively reduced to the task of driving and feeding the machines with raw materials, picking up the product, monitoring and controlling them. A new specialization arises, however, is at the service of machines. Besides, factory implies an effort to normalise, standardise the products, change the traditional techniques of the occupation, the establishment of another relation between man and instruments of labour because worker's action is exercised less and less over the work objects directly, but acting in a more indirect way especially on machines.

The worker is no more an artisan but definitively a worker that begins progressively to lose control of his working process and is affected by the disqualification originated in the division of labour. The production instrument or tool incorporates to the machines and the worker comes to watch over machineries, which has resulted in the fact that he is easily exchanged and mobilised from one task to another, with labour losing its old sense and content.

Within the factory there is a *complex cooperation* among diverse types of workers that monitor, with more or less ability and dexterity, a system of productive mechanisms, moved uninterruptedly by the central driving power. The subjective elements of the working process are modified alongside the handmade organisation of work.

During the previous manufacture period, labour technical division still left wide margins of individual freedom due to the handmade progress of co-operation. But, on the contrary, in factories the coordination of the working process is guaranteed by the very existence of machines.

Then, labour acquires an eminently social nature and technical labour division (in tasks) is generalised. Each of these simple procedures was assigned to a worker who focused exclusive and specifically on the execution of the same task, in search of the uninterrupted continuity of those tasks. A certain amount of divided manual labour disappears because the machine undertakes the realization of simple procedures. While labour division favours and multiplies machines' use, some qualifications appear and disappear and new activity branches are developed, especially those aimed to the production of instruments of production. But workers should rigidly observe rhythms or norms and they begin to lose control of their work; in the process of automated work, dead labour will subordinate living labour. As Andrew Ure said, later taken up by Marx (1971): Wherever a process requires peculiar dexterity and steadiness of hand, it is withdrawn as soon as possible from the cunning workman, who is prone to irregularities of many kinds, and it is placed in charge of a peculiar mechanism, so self-regulating that a child may superintend it" (quoted by Marx, 1971). The automatic system immediately shifts worker's labour, who loses autonomy since machine takes his independence and a hierarchy that coordinates and organise labour, thus justifying manager's existence. Labour rhythm and intensity increases, the cost of labour power diminishes, thanks to the substitution of skilled for semi or little skilled workers, who are in charge of machines' surveillance and maintenance. The increment of productivity, as well as the reduction of the labour-value of commodities aimed to labour power reproduction, derives in the decrease of its social value; both explain the rapid increment of the surplus value rate and, consequently, of the profit rate.

During the period of prevalence of the capitalist factory as productive organization, the surplus value rate and the profit rate increased considerably, because working day is regularised and the number of working hours increases; punctuality and assiduity are more efficiently watched over; labour productivity increases as the organic composition of capital grows and human and animal power are substituted by mechanical power. Besides, labour intensifies, the demand for discipline and for surveillance (to avoid robberies) increases, and, when

substituting complex for simple labour, the demand for professional qualifications diminishes and so do the costs of labour power reproduction.

The formal subsumption of labour is possible without changing the content of labour process and the used techniques; the product, both in quantity and quality, depends fundamentally on labour time, worker's ability and savoir faire. The capital imposes labour to its accumulation logic, but in the state labour had "before" beginning the capitalist wage relation. Confrontation or conflict between capital and labour are born from those conditions of working process execution and from capital's tendency to extend or intensify labour time in order to increase absolute surplus value.

TAYLORISM, FORDISM, KEYNESIAN-FORDIST DEVELOPMENT

5.1.-A decisive stage regarding the working process organisation established in the second half of the XIX century is the scientific management (ScM): Taylorism. Previously, the productive knowledge accumulated by professional workers allowed them enjoying a wide margin of freedom and independence within the industrial companies and working at their own pace handling fatigue. F. W. Taylor thought that this was the cause of significant idle time that managers and supervisors could not eliminate because they ignored the profession secrets. To get hold of that productive know-how, Taylor introduced methods and techniques whose explicit aim was to lead the way to conduct working process and to save idle time. This was generated because wages' system didn't take performance into account, nor the fact that the mutual control workers implemented reduced labour pace to avoid spare labour power dismissal, and due to managers' ignorance and lack of proper preparation. The fundamental innovation was labour social division among design and execution (restricting workers' initiative and creativity) which implied programming labour in advance, before the start of the working day. This was achieved by means of time and motion study, tasks' timing in order to choose the fastest way to

executing them, tasks' evaluation, standardisation of labour instruments, raw materials and even the workers profile, so that only those whose anthropometric measurements were the most appropriate to individually execute each task were chosen, distrusting group work because quickest workers will work as slowly as the slowest ones. Supervision -that watched workers closely and ensured tasks were executed as set out-, was created to achieve this labour intensification; remuneration according to performance -which internalised the search for labour intensification- was also established. The productive results of these labour "rationalisation" techniques and methods were impressive and contributed to its diffusion in the business environment and in the public sector.

Unity among, on one hand, labour driving power and, on the other, the task itself, doesn't constitute an absolute necessity. Hence, unity among design and execution tasks, among intellectual and manual labour, can be broken, enabling different people or groups of people to carry out both procedures. Thus, labour division is possible, although it is never feasible to completely exclude one of the two mentioned elements as if they were in opposition: labour is never exclusively manual or reduced to the simple execution, neither exclusively intellectual or only focused on design tasks.

Before the introduction of ScM, professional workers had a relative autonomy in the working process and they could control labour time. When dissociating design and execution, such professional knowledge is extracted, workers are disqualified and knowledge is concentrated on managers. Skilled labour is substituted by simple labour, and the employment of women and children was allowed to substitute adult males. Workers lost power to control the working process, they remain at the service of constant capital because rhythm, production and quality are regulated by machines; therefore, subordination, managerial power and control of capital upon labour increase, and worker becomes an instrument of the machine, he loses his subjective dimension.

As a counterpart to labour economic rationality, labour intensification and the reduction of the production unitary costs, a physical health detriment took place, since fatigue grew, labour accidents and professional diseases increased with its sequels of labour inability and death. Psychic and mental risks (loss of autonomy, interpersonal and labour conflicts, lack of recognition, control of emotions and avoiding to opine before hierarchy, fear of dismissal) were already present, but they were still invisibilised.

5.2.- Economic growth generated in capitalist countries and expansion of the demand of durable consumer goods at the beginning of the XX century created the conditions for progressively consolidate a development mode by means of a working process that reinforced labour social and technical division through several innovations: the production standard (conveyor belt or assembly line which regulates speed and saves time, increases steadily productivity, looking for massive production of homogeneous products), wages' relationship [stable employment, recognition of rights, collective bargaining, healthcare at the company's expense, paternalistic social benefits subject to behaviour changes (attendance) for not perturbing the operation of the assembly line], the consumption standard (high wages which are updated according to inflation and the pace of productivity, that allowed wage workers to gain access to durable consumer goods, with cars in the leading position), life standards [stimulus for personal saving, "regularisation" of family life, household indebtedness, opportunities to gain access to housing in the factory surroundings, enforced literacy, fight against alcoholism (by means of AA facilities), integrating wage workers into "consumption society" and assimilating their behaviours to those of the middle classes].

When those norms occur in a relatively coherent and stable way with its macro-economic repercussions, we are talking about "Fordism".

Labour real subsumption to capital takes place when working process is transformed by means of the introduction of new productive assets, new management methods, change in companies', production's and labour's organisation, technical progress in instruments of labour is introduced

and productivity increases. Worker operates at machines' service and, simultaneously, remains subordinated to manager's initiative who organises the working process, without consulting neither involving workers.

Productive automatisms make, during the working process, instruments of labour confront worker, as capital, as idle labour that dominates living labour power. Seeing this process of labour division in the long term, as Marx points out, instruments of labour have become a means of torture and remove attractiveness from worker because machines have not liberated him from labour but they have removed content from his work. This statement introduces the thematic of PSRW, because new forms of production organisation creates a complete hollowing out of worker's personality, he remains in a passive situation, he is even brutalised and, at the same time, physic, psychic and mental fatigue increase. However, to get out of this situation, workers should gain access to production process' control and to deeply know the productive system in order to anticipate changes.

5.3.-After World War II, these two working processes, firstly introduced separated or in a coordinated way in the greatest and most dynamic industrial companies and then in other sectors and activity branches, boosted the growth of productivity in a heterogeneous way, they allowed a sustained output growth under conditions of full employment and rising real wages. The State played a decisive role in developing the base industry and the instruments of production, encouraging consumption and regulating markets without increasing social inequality. Representatives of the business organisations and, to a lesser extent, trade unions, participated in the elaboration and pursuit of national development plans by means of the Modernisation Committees and the Socio-economic Councils. Immigration from less-developed countries (and from the former-colonies) contributed to satisfy the demand for low skilled labour power needed by industries and building that had already adopted Taylorist and Fordist working processes. In a context of high and sustained growth and of almost full employment, important laws were adopted in terms of Labour rights and social security (retirements, family allowances, etc.), giving rise to

"labour society" or "wage society". The increasing tax collection allowed the building of major infrastructure works, the generalisation of social security systems and education and health public services gratuity.

For nearly three decades industrialized capitalist countries developed through a Keynesian-Fordist modality, with strong State intervention, without serious crisis, with low inflation due to the exploitation of former colonies and underdeveloped countries, almost full employment, rising real wages, high profit and investment rates, with economy focused on the domestic market nourished with the resources of a high rate of salaried workers where social conflicts didn't were against the production mode since they were centred on the surplus distribution and on improvements in labour conditions and environment. Only at the end of 1960s massive labour conflicts questioned the working process and the topic emerges with force in the academic world of the United Kingdom (Labour Process Group), the United States (Braverman), France (Coriat and Freyssenet) and Italy ("Gramscian" workerism fostered by Panzieri).

BUT THE CRISIS OF THE DEVELOPMENT MODE ARRIVED

6-1-However, due to technical, economic, social and cultural reasons (Neffa, 1998; Boyer, 2016) this process was interrupted because the potentialities for going on increasing profit rates exhausted which entailed its stagnation undermining profit rates and finally resulting in a great productive system crisis characterized by economic stagnation, inflation and unemployment, used to be the rule for the prevailing development mode since the early 1970s, when the crisis first appeared in the North American "real economy". Measures adopted to cope with it, known as "the Washington Consensus", caused economic restructuring under the impulse of companies total or partial privatisation as well as the privatisation of the social security systems, the reduction of the State power to address growth, decrease of public employment, opening to foreign trade which gave rise to production globalisation, markets deregulation and labour reforms to introduce

flexibilisation (of labour organisation, of labour contracts, of working day, of social protection, among others), looking for the decrease of stable and with guarantees of stability employments and, especially, the reduction of real wages and labour costs. The deindustrialisation provoked by globalisation and emergence of new industrial countries with high productivity, good quality and low wages changed the economically active population's structure. Financialization and the use of new information and communication technologies created an unstable context, with high volatility and successive crisis in short periods of time.

Between 2007 and 2008, the North American financial crisis has, once again, an impact over the whole world, turning the consequences of already in place adjustment polices more severe, even for countries with "social-democratic" governments.

Big companies, mainly the transnational ones that became leading actors of production and world trade, were subjected to strong macroeconomic pressures and mainly to the exacerbation of the international competition. They were forced to reduce their direct and indirect, fixed and variable costs, with the consequent impact on employment. Those that resisted were able to increase the absolute and relative surplus value to compensate the drop of profit rates. The adopted measures, long lasting ones and which have repercussions on subcontracting and outsourcing companies, intensified the use of labour power, cut staffing levels to the strict minimum, pressed real wages downward and didn't pay the social security contributions (undeclared employment), demanded polyvalence in order to cover absences or dismissals, increased control and internal discipline "to reduce idle time" and diminish absenteeism, transformed stable into precarious employment to reduce the number and proportion of people who have stable and with guarantees of stability employment so that being able to dismiss them when concluding the contracts without asking for the authorization of the Ministry of Work neither paying compensations. These changes in working process organisation and content and its intensification, spread in a heterogeneous way everywhere, whatever their level of development or their mode of production.

Since the emergence of these two big crises, one of the most worrisome problems is that no alternative to the established production mode has been built and trade unions, in a neoliberal context, have limited themselves to resisting, with little success, only claiming as regards real wages, participation in the national income, employment, working conditions, health and social security systems. The axis of their action was put on the conditions for buying and selling the use of labour power; nevertheless, precariousness took the lead and workers lost control over working processes, assuming a passive subordination before managements, who look for intensifying labour, incorporating new technologies, increasing productivity and improving goods and services' quality in order to gain customers' loyalty.

Regarding the former development modes, there is a difference we want to highlight here: the impact of these working processes on workers' health. Labour accidents kept taking place, so did professional diseases with their consequences of labour inabilities and death. Now, labour accidents are also frequent in the activities of the primary sector and in those of the tertiary and services sector. Technological changes have reduced, but not eliminated, the physical power demands, exigent gestures and postures that are harmful to health neither the exposure to labour environment risks. But the most important and growing impact on health is that experienced on psychic and mental dimensions. Moreover, female workers who has "double shift", both within and outside the home, suffer a stronger impact.

The paradox is that PSRW have been ignored or invisibilised by managers and governments since they don't want to bear their costs; workers have naturalised them as if they were irreversible and inherent to work; labour and social security laws ignore them or minimise them until its relation to work is proved. Frequently, its consequences on health are explained alleging workers' weakness or psychic and mental fragility that pre-existed before taking up the employment, as if it were an individual problem, and stigmatizing those who suffer from them.

Progressively, starting in the industrialised capitalist countries, the new dimensions of labour conflicts, led by young skilled workers that

challenged working process, created the conditions so that the issue of PSRW gains significance.

RESEARCHES MAKE PSYCHOSOCIAL RISKS AT WORK VISIBLE

Researches on PSRW that are more attentive and appropriate regarding health in an integral sense are the carried out by Karasek (1979), Siegrist (2013), Wisner (1988), Dejours (1980, 1988, 2012), the CoPsoQ (Copenhagen Psychosocial Questionnaire) of the CC.OO (Spain Workers' Commissions, by their acronym in Spanish) (2010), the ILO (1974) and the OMS (1984) and, more recently, by Michel Gollac in the ENSAE2011 (Ecole nationale de la statistique et de l'administration économique, 2007) and Thomas Coutrot in the DARES (Direction de l'animation de la recherche, des études et des statistiques, 2003). They all have a holistic focus whose variables are grouped in six psychosocial risks at work factors (RPST). Starting from the latter ones, we have thoroughly discussed and built a theoretical framework for studying them and in order to our research team implements it using several methodologies (Neffa, 2015; Neffa and Denda, 2016; Neffa and others, 2016; and Neffa and Henry, 2017).

The essential difference of this approach as regards the other ones is that it postulates that the decisive variable of working conditions and its impact on workers' health is in the content and organization of the working process, which not only allows the generation of value, the extraction of surplus value, but rather it can also deteriorate or preserve workers' health.

7.2.-According to Gollac (2011) y Neffa (2015), the above mentioned six risks' factors are outlined as follows:

1.- *The psychological demand and the effort required to execute the activity* are originated by work quantity, rhythm and intensity that determine psychic, mental and global workload, load of work, working time and its configuration (day job, night job, by shifts, antisocially

scheduled), the exposure to work environment risks, as well as the complexity of the activity that implies for the worker the use of his resources and cognitive skills to carry out a quality and demanding work assuming responsibilities.

2.-The emotional demands sometimes are inherent to work and are almost innate. To carry out the activity, sometimes implies for the worker controlling himself in order to passively put up with violence, insults and threats, pretending, forcing a smile and being kind to gain customers' loyalty, hiding fear to accidents, violence, harassment, and fear of failure in the activity at the workplace. Workers often feel the need to hide or control their own emotions (for not being afraid, to avoid opining before a superior, or not showing empathy) to be able to carry out the activity efficiently and without delays.

3.-Autonomy at work is the possibility of being an actor, to control and leading his own professional life and to have the possibility of participating in decision making. in order to achieve it, worker should develop and use his skills qualifications and professional competences to carry out the task and to keep himself learning. However, the excessive labour technical and social division that generates repetitive and routine works devoid of interest and which prevent or limit worker for fully using his mental abilities, reduce worker's autonomy, skills and competences are underestimated or ignored, removing worker's stimuli to get involved in work.

4.- Social relationships in the workplace (horizontal ones) and labour relations (vertical ones) are important and multiple because they refer to co-workers, direct bosses and hierarchy, to the organisation itself as employer and, finally, more and more to colleagues, patients, students, clients or users. These relationships, understood as all the dynamic exchanges performed by individuals with the different actors of their labour environment, can constitute a positive aspect or a negative factor of psychosocial risk at work (PSRW). Relationships people build in their work places can create the conditions for workers to integrating themselves and being considered part of a team in which there is a recognition to their its task, being valued for their skills and

competences, being treated fairly and perceiving they are carrying out something that is useful for the other ones. Sometimes, hierarchy, to get work intensification and to increase productivity, encourages competition among the workers of one section, or among offices, making them play as if they were children so that they compete with each other and rewards those who produce more and work faster. Social atmosphere The social climate at the workplace should be suitable and attractive so that worker finds pleasure and involves himself and is not subject to injustices, harassment, sexual harassment, physical or verbal violence, and so that, as an integral part of the collective of work, can communicate and cooperate with others to transmit knowledge, experiences and keep himself learning, as well as to receive (co-workers) social support and (bosses and managers) technical support to cope with difficulties and achieve goals. As we have noted in previous researches, frequently, those relationships are often conflicting, harmful and cause psychic and mental sufferings, fact that is increased if worker feels he is victim of labour exploitation.

5- *Ethical conflicts* derive from the multiplicity of situations workers experience in their working processes and can be configured as negative if they affect in a peculiar way their beliefs, values, norms and convictions, causing suffering and leading to damages over their integral health (bio-psychosocial). These conflicts can emerge when worker's possibility of quality work according to the standards of the profession are prevented because his instruments of labour work in an imperfect way (he receives poor quality inputs, he has to work hurried, there are power outages, the system "collapsed", or there is a logistics failure). Conflict also appears when worker suffers an ethical dilemma because he is obliged to do things he doesn't agree with or things he strongly disagrees, when he feels he is doing a useless work or which is considered as such by his co-workers, that it is considered as such by the partners, being downgraded by society. The conflict arises when someone has the experience or the feeling that he is not morally recognized by the organization.

6.- *Insecurity in the work situation and in employment stability* is a circumstance that can occur when someone is victim of unemployment,

or when unemployment is imminent or constitutes a threat and, increasingly, if work and employment are precarious and wage is not enough, when someone risks to be subject to retrogradation in the categories of the collective agreement or statute or, after company mergers or concentrations resulting from economic restructuring or administrative reforms process, staff remains without tasks assigned. This feeling is dramatically evident when job is precarious, worker is not registered in social security organisms or if future is uncertain due to crises, risking dismissals, suspensions, reduced overtime. It is also evident when real career opportunities are not seen inside the company or organisation or the promotion possibilities are blocked due to budgetary restrictions, or there is discrimination or nepotism. The same is true when worker feels restlessness or fear in the face of new technologies or new forms of work organisation, when he hasn't been previously trained for using them, and when labour content and new labour organisation make him realise that he won't be able to stay in activity in that work until reaching retirement age. Employment insecurity and instability constitute a risk factor for workers' health, because it reduces their ability to controlling the situation, for fear of losing the job, remain without wages nor social security, or waiting for their promotion because it is delayed, and fear from having to switch themselves to gain access to another employment.

THE IMPACT OF PSRW ON PSYCHIC AND MENTAL WORKERS' HEALTH

The substantial unit of human beings generates a direct interrelation between the physical and biological dimension and the psychic and mental dimensions. If one of them is harmed by pain or suffering, it has repercussions on the others. This relationship had been invisibilised and it had naturalised pains and suffering caused by the conditions under which work is executed, taking into account that it is an irreversible situation and that, unfortunately, work will have negative impacts on the worker, who should resist and accept them in a passive

way or receive a monetary premium as compensation for his health deterioration.

With regard to the impacts of psychosocial risks at work over psychic and mental health, epidemiological studies concluded that those workers are more vulnerable to injuries and accidents or contracting diverse diseases (Kristensen, 1996), if determined conditions occur:

- when someone works under high pressure (stress) caused by demanding psychological demands and when, in order to executing the activity, he has a poor autonomy and control margin over his working process,
- if work is very intense and complex, it overcomes workers' resistance and adaptation capacities and workers doesn't get, as a counterpart, a recompense nor a fair recognition,
- if worker doesn't count on the social support (of his co-workers) and the technical support (of superiors or supervisors) to carry out the activity, in order to compensate by means of their creativity the inadequacies of prescribed work,
- if the monetary reward is not perceived as appropriate as regards the carried out work and there is not a moral or symbolic recognition on the part of hierarchy and co-workers with regard to the effort, dedication and involvement,
- if workers, when working, should violate their ethical principles and their scales of values when having to do things they are not in agree with,
- when workers don't enjoy legal guarantees of security and stability, they suffer unemployment threats, or threats of precarious work,

Although the content of psychosocial risks at work (PSRW) firstly has repercussions on the psychic (affective and relational aspects) and mental dimensions, given the nature of human beings, these phenomena are also somatised and finally expressed in the body like such as numerous researches demonstrated (mentioned in Neffa, 2015).

Frequently, working process organisation within companies and organisations causes or predisposes the emergence of harmful behaviours: harassment, sexual harassment, physical or verbal violence, *burnout* (syndrome of emotional exhaustion, frequent in careful tasks), addiction to drugs or alcohol consumption as a means to compensate inclement conditions, cope with fatigue or with dissatisfaction caused by work, workaholism as a desired effect through performance-related remuneration systems, companies or organisations' hierarchy surveillance and control or as a personal attitude to achieve rewards or promotions to very competed positions.

Under these conditions of intense work and increased fatigue, deep and sudden changes in companies, production and labour organisation may cause emotional imbalances and, in the short or long term, may create the conditions, or predispose, to be victims of violence, burnout, prolonged depressions, suicide (there was worrying statistics in France-Telecom and Renault in France) or *Karoshi* (sudden death at the work place due to overwork or intensification) as it was proven in the Japanese model.

But the novelty verified by numerous epidemiological studies is that, over time, those psychic and mental risks at work are somatised, given the narrow relationship they have with human body and they explain diseases suffered by workers subjected to intense works, with high demands as regards productivity and quality, who have poor autonomy and should bear a high social and technical labour division, their monetary rewards are below the levels they consider fair according to the effort, their skills mobilization, their competences and the emotional involvement put at stake, and the fact that, n spite of all their efforts they don't receive their superiors or peers recognition.

Epidemiological studies found the following ones as the most frequent somatisations: cardiovascular diseases, musculoskeletal disorders (MED), gastrointestinal disorders (dyspepsia, peptic ulcer, irritable bowel syndrome, Crohn's disease, ulcerative colitis), immunological effects, prolonged depressions, as well as other frequent impacts on health such as generalised fatigue, sleep and mood disturbances,

hormonal disturbances, weight changes, fertility disturbances, pregnancy-related pathologies and the sense of "non-specific pains" (mentioned in Kristensen, 1996, and Neffa, 2015).

All this diseases cause suffering and pain, damage to health, but they also cause labour absenteeism, they perturb and interrupt normal companies and organisations operation, they generate interpersonal, social and labour conflicts, they increase direct and indirect costs and they require higher budget for public health and social security services. But these economic dimensions, whose magnitude is growing everywhere according to ILO, are not still related with the deep visible and invisible causes that provoke them.

REFLECTIONS AND PERSPECTIVES

The decisive variable of the impact on workers' health is, essentially, working process content and organisation. We suggest, from the theoretical framework which provide support to our studies, that work is not pathogen. The poor labour conditions and environment and the imbalances in the psychosocial risk factors originate suffering, injuries, predisposition to suffer work accidents, professional diseases expressed by body aches and psychic and mental health problems.

This statement opens up a series of challenges and queries to economists for whom "work is a central value that remains" and workers' integral health is one of the objectives in the modes of development.

To move in that direction, our proposal is:

- to make visible the PSRW, by means of scientific studies and researches, because they have been hidden, naturalised, invisibilised, or denied to reduce prevention costs and they have been excluded by labour law from the lists of recognised diseases,
- to carry out those researches in narrow relationship with the involved trade unions in order to meet their needs,

- to show that PSRW are collective problems and not individual ones, they are caused by working process content and organisation and the form adopted by wage relations,
- to state that PSRW are not a fatality, because prevention is possible and necessary,
- not to search for a simple and immediate solution to such problems considering them as of psychological nature, characterizing them as problems related with the individual characteristics of the personality, typical of people of weak character who weren't able to resist. That is to say, blaming and stigmatising victims.

To look for substantial solutions, first at all, causes must be identified in order to change working process content and organisation, to "humanize it", as ILO already proposed (ILO, 1974; 1976).

The minimum guarantee so that those problems are identified, is that subjectivity freedom of expression is ensured and workers who experience them are listened so that their representatives have the possibility of participating to adopt prevention measures by means of Health, Safety and Working Conditions Joint Committees, constituted at the level of the activity or sector branch, of companies or organisations, right that has not yet been recognised by the Argentinean national legislation.

The necessary condition for prevention is established and successful, is the development of a solid program of information, training and awareness on these topics, either on the initiative of management and those who are responsible for the administration of labour relationships, or on the part of union leaders, delegates, union members and workers in general, with the entire companies and organisations staffs as target, whether they are or not affiliated to the union that represents them.

A priority task remains ahead: promoting the elaboration of a State policy, consisting of a specific prevention and repair program, starting from analysis and diagnoses derived from multidisciplinary studies and researches, involving employers, workers and their respective

organisations, with the support of universities and specialized research centres. That is to say, the problem is collective and its solution is political.

* * *

In conclusion, we would like to make an additional reflection starting from our experience in socially owned work cooperatives enterprises, recuperated by its own workers, or self-managed. To promote workers' health and control PSRW, it is not enough to have eliminated the private property of means of production and these stay in the State's hands, neither that workers have access to the property of the means of production or they have control over them. As working process content and organisation is the decisive variable, if such change in the property of the means of production occurs, exploitation will diminish, but, if Taylorist-Fordist working processes don't change, then, the deterioration of physical and mainly psychic and mental health will continue. Therefore, reflection on working process should not be limited to the production processes and the process of surplus value creation.

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