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From the industrial Spirit to the bioeconomic Cyborg: perspectives for a humanism of poverty

ABSTRACT: The aim of this work is to show the features of the industrial and of the post-Fordist production. I will show that the first of them lets a world appear, where the distinction among humans, machines and nature is sharp. On the contrary, the second kind of production is correlated to a new configuration of the subject crossed by cultural, mechanical and natural traits: the cyborg. Starting from these assumptions I will, on the one hand, criticize the modern and traditional humanism, connected to the Fordist production, based on the presupposition of a separated human essence and of a teleological history of freedom. On the other hand, I will try to point out the main traits of a new cyborg humanism, consistent with the effects of the post-Fordism. This new humanism, critical of the new forms of capitalistic expropriation, will be identified through the concept of "Poverty".

KEYWORDS: *Bioeconomy, Cyborg, Fordism, Humanism, Poverty.*

1. Introduction

According to Macho, pre-industrial production was carried out by using techniques and machines (think of the plough) that operated through the intersection of mechanical elements, organic animal power and human intellectual guidance. In this production horizon, the question about the borders among man, machine and animal had less privilege than the question about their connections, their functional relationships and their respective positions in the world. In other words, a clear division among the human, the mechanical and the natural was, if not absent, at least blurred. Only with the industrial revolution and the development of self-moving machines, with the removal of most animals from living spaces in industrial metropolises, a marked distinction emerged among human, animal and machine¹.

On the other hand, it seems that, in the last few decades, a new type of production is appearing, which not only reconfigures the spaces, times and features of work and wages (post-Fordism), but also the relations among organic nature, culture and technology. If Fordism was based on the material production operated by self-moving

1 Macho 2017, 24.

machines, of which the worker was an accessory that had to get used to their rhythms and discipline, post-Fordism is based on immaterial production; it extracts value by commodifying the intellectual, relational and communicative capacities of bodies that are increasingly integrated with technical instruments, which appear as prostheses that make possible new activities, new risks and new forms of power. Intellectual production also creates value through the processing of data and information, transforming the world into a readable text, in which organic, inorganic, mechanical bodies and cultural products appear as codified devices that enter into relation². One can think of bio- and nanotechnology, mechanical products of the human intellect, that are not only applied to bodies but rather transform them³.

It is possible to say of this type of bioeconomic production, in which it is life in all its dimensions that is functionalised to the production of value (and not only labour-power), what Van den Daele said of biopolitics: “it reacts to the overcoming of boundaries, to the fact that the boundary conditions of human nature, which for a long time have been considered unquestionable, because beyond our technical capabilities, become available”⁴. On the other hand, it should be emphasised that the term bioeconomy (in analogy to biopolitics⁵) does not refer to the fact that the economy tends to target a naked life, originally free from the mechanisms of valorisation; on the contrary, bioeconomy indicates a threshold of indistinction between economy and life, which, on the one hand, conditions and makes possible the processes of accumulation and, on the other, is caught up within the devices of value production. In other words, it intensifies what Marx called real subsumption⁶, where the organisation of life, in all its aspects, is defined on the basis of those regularities functional to the capitalist accumulation⁷.

Bioeconomy, however, not only crosses the boundaries between economy and life; it seems also to blur the boundaries among machine, nature and culture once again, just as in the case of pre-industrial modes of production. Donna Haraway, indeed, has captured the emergence of the traits of a cyber-self – in which the simplicity, the univocity of consciousness and the pure Ego give way to the integrated complexity of nature, culture and machine – at a time when the labour economy and the technical forms of production were being transformed⁸. This new configuration of productive praxis that Haraway identifies, connected to a cyborg subjectivity, anticipates many of the elements that will mark the bioeconomy. In this horizon, production leaves the factory becoming decentralised, and it is increasingly characterised by office work, where intellectual skills are required, and by care work, where relational and affective skills are needed. In addition, the role of technologies is more and more central, by intervening in an increasingly expansive manner in productive and reproductive practices.

2 Braidotti 2013, 55.

3 Lemke 2011, 93.

4 Van den Daele 2005, 7.

5 Lemke 2011, 4.

6 Marx 1973, 584.

7 Negri 2017, 192.

8 Haraway 2016, 26.

This mixture of the technical, the intellectual, the affective and, therefore, the corporeal, which capitalist processes subsume in the view of the production of value, is what allows the appearance of a cyborg subject. This new form of the Self does not project itself towards an original purity alienated in the world of technical and natural objectivity; it does not need to spiritualise the world in order to recognise itself in it, to imprint the mark of its essence on the real; it is originally a complex natural-cultural-mechanical whole⁹. In this view, human technique is therefore not meant in terms of production of tools, considered in their mere instrumental character – as a useful objectivity for the subject's aims – but in terms of biotechnique – to use a Mumford's notion¹⁰ – according to which instruments are prostheses that release organic potentialities, both symbolically determined. In other words, just like biopolitics and bioeconomy, biotechnique means the impossibility to identify borders among the technical, cultural and natural elements that traverse the historical path of the human.

Subjectivity does not appear, therefore, as negativity, the operativity that shapes an objectivity that, inert, waits to be modified by praxis; in other words, its historicity escapes the time of origin and end. That is, Haraway grasps the intimate relationship between post-Fordist production, cyborg subjectivity and the abandonment of historical teleology. This trinomial is the reverse of the one which describes the relationship between industrial production, subjectivity, understood in humanistic terms, as an essence separate from machines and nature, and the historicity of liberation. These elements characterise the framework of so-called humanistic Marxism, in which man is distinguished from the animal because he produces the means for his own reproduction, being the praxis that transforms the world; but it is also distinguished from the machine which, as fixed capital, i.e., as a self-moving instrument functionalised to accumulation, imposes its own regularities on the worker, whose spirituality is, in a certain sense, underdeveloped, alienated and reified in the factory system; man, as worker, must therefore spiritualise the world, must give it a human meaning: in other words he must shape nature and define new purposes for the machines so as to make possible a world in which all bodies are also bearers of a human spirit, in which, that is, the human essence is not alienated but historically realised¹¹.

It is undeniable that such a perspective on the relations among man, machine and animal is preserved throughout Marxian work. Although it is possible to identify epistemological breaks in the works of the German philosopher from which, in his maturity, the humanism and *l'histoire au future antérieur* find less space¹², it is nonetheless true that the tripartition mentioned above is confirmed and deepened. If we assume, therefore, the distinction among man, machine and animal as the key for analysing Marxian pages, we must conclude that his young humanism, which projects a spiritualisation of an alienating world, is never abandoned.

9 Haraway 2016, 31.

10 Mumford 1966, 7.

11 Marx 2007, 90.

12 Althusser 2005, 27.

Marx was aware that every theory that is elaborated in the brain has its roots in a determined historical world¹³. If we assume this, it must be said that humanism and cyborg post-humanism have – if not roots – correlations with different productive configurations. Our aim is to describe their traits and repercussions on the human-machine-nature relationship, as well as on the resulting forms of temporality. In particular, we will focus on the different rhythms that mark production processes: in the Fordist case, the clock and chronometer appear as the main machineries that extrinsically and objectively impose themselves on man; in the case of the bioeconomy, the work clock is instead internalised, since production times are rhythmised by the aptitudes and capacities of bodies: this means that when intellectual production is affirmed, the external metronome, as well as the production regularities it imposes, become indistinguishable from the variable capital, that is, from the one who produces.

This new condition transfers to labour, empowering it, the intellectual capacity to organise the productive praxis and the social relations that guarantee it. This makes it possible, therefore, to hypothesise, with Hardt and Negri, a new humanism that rejects the modern, essentialist configurations that this term has assumed. Rather, it will be a matter of defining a humanism of poverty, where by this term we do not refer to a lack, but to the power of that living labour which, exceeding all quantified wealth, can only be indicated in terms of negativity and possibility; this humanism does not claim to realise an alienated Human-form, but rather to liberate the constituent power of deformed bodies, as products of the mobile interconnection of nature-culture-machine. In other words, at stake there is the liberation of cyborg bodies from their capitalist subsumption, which functionalises life to accumulation. The humanism of poverty aims, therefore, to reactivate a use-value that is irreducible to the transformation into exchange-value and property; that is, it aims at a new common-use that leads to an empowerment of bodies. In addition, in this view, it will be possible to repropose Marx's discourse, even if set free from the humanistic residues that traverse all his work.

2. The industrial Spirit

According to Borsò, Marx's discourse should be inscribed "in the *longue durée* of the Cartesian topography that separates *res cogitans* from *res extensa*"¹⁴. In fact, the German philosopher distinguishes man, as praxis and negative action, as producer of novelty, from nature, an extension devoid of historicity, or rather as a space in which eternal forms eternally reproduce themselves¹⁵. Man differs from the animal in that he produces the means for his own reproduction, which are therefore not natural forms, but historical products constructed through a project that has given form to matter¹⁶; this means that man is *res cogitans*, i.e., time, while nature is *res extensa*,

13 Marx 1973, 101.

14 Borsò 2017, 23.

15 Marx 2007, 99

16 Marx and Engels 1974, 125.

passive spatiality, the ground of inert matter. Praxis is therefore the vacuum in being just as man is the negativity of nature: this “dialectical dualism”¹⁷ – to adopt a formula that Kojève used for Hegel’s *Phenomenology*, although elaborated through the study of Marx’s *Manuscripts of ‘44* – according to which two distinct principles are integrated, is the driving force behind the history of man, whose creativity spiritualises an extraneous world.

But this doubling of thought and extension also captures the relationship between man and machine. The latter, as an automaton, is analogous to nature, insofar it cyclically performs well-codified functions. If labour, in fact, produces novelty, also through the production of new machines, the latter only reproduce a certain production cycle; for this reason, capital, tending to indefinitely exceed its limits, needs to exploit more and more labour in order to expand. It is in fact praxis that produces both new modes of production and capital, even if through exploitation.

When, however, man is reduced to machine and nature, that is, when his creative energy is neutralised, this *res cogitans* is alienated, it is transformed into a body devoid of human meaning. This is the case of the worker, who exchanges his labour-power for a wage, so that he reproduces himself cyclically like any natural, mechanical object. The wage is, in fact, equivalent to what is necessary for the biological *reproduction* of the labour-power required for the ever-expanding *production* of capital¹⁸. From this perspective, it seems that Marx distinguishes between production and reproduction, although as two moments of the same dialectical process: the general production of value. The former refers to the creation of value through surplus labour, to the production of plus-value that is not necessary for the reproduction of bodies. Reproduction, on the contrary, refers to the production of what is necessary for the biological survival of the worker: it is the product of necessary labour. Only such labour is remunerated through the wages earned by the worker, who can reproduce himself as a body and not as a spirit. The worker therefore appears as a threshold between animal and man, not animal insofar he is labour, but not yet man because he is deprived of the human sense.

But the worker is also the threshold between man and machine; in fact, if in the pre-capitalist mode of production, the creativity, knowledge and experience of the artisan were the source of production¹⁹, in the capitalist mode of production, the knowledge incorporated in the machine defines the rhythms and the configurations of production: the worker becomes only an accessory functionalised to the mechanisms of the technical instruments²⁰. A sort of dialectical reversal of subject and object takes place: the subject, labour, is objectivised, organised according to the functions of the machine, while the latter, the object, becomes the subject of productive praxis. The worker, therefore, is not a machine, since he is negative activity, but neither is he properly man, since his spirituality is mechanised. In the industrial system, it is in the machine that all the past production and knowledge is condensed, so that it can dictate the rules of the current production processes; on the contrary, labour-power is

17 Jarczyk and Labarrière 1990, 132.

18 Marx 2007, 19.

19 Marx 1973, 497.

20 Marx 1973, 690.

de-historicised, it is productive capacity directed by technological developments. In fact, it is the machine that is fixed capital, the place where past production is fixed and crystallised; labour is variable capital, which must be constantly reacquired, which is, therefore, always new and devoid of history, pure labour-power²¹.

According to this theoretical framework, therefore, there is a clear separation among the animal, the human and the machine, and the confusion of these terms is what degrades man by alienating him. For this reason, man, in the figure of the worker, must reactivate his own productive and creative praxis in order to renew and reshape the world. The aim is to overturn the relationship between subject and object, that is, to spiritualise and humanise the real – which in its capitalist configurations is imposed as an external fate to the worker – making it functional to the development of everyone's human sense: at stake, through the spiritualisation of the world, there is the humanisation of the workers' bodies. Such analyses made possible the elaboration of Lukàcs' orthodox Marxism, who interpreted the subsumption of the worker to the capitalist production in terms of reification and objectification²²; such a condition could therefore only be overcome through a conscious action, capable of reactivating historical time, and, therefore, through a spiritualisation of the worker's body, leading to the realisation of its human essence.

These are the traits that characterise Marxian humanism, which has been described as a "failed patricide"²³: in fact, it repeats the idealistic theoretical devices thematised by Hegel. In *The Phenomenology of Spirit*, man, interpreted as consciousness – as separateness with respect to every datum, that is, as the power of negativity, "the most astonishing and the greatest of all the powers [...] absolute power"²⁴, and therefore as the negation of natural being – appears as that transcendental identity that operates in time, forming the world and spiritualising it through labour. It is true that from the perspective of Absolute Knowledge, as Vitiello notes, even history – as a process of identification of subject-object, reason and matter – is removed, being rather understood as the temporal image of an absolute identity eternally past and therefore eternally present: the Idea, the absolute and a-historical rational unity of subject and object²⁵. On the other hand, despite these onto-theo-logical results, which re-propose in secularised forms the extra-temporal divine order and which Marx himself criticised²⁶, the phenomenological and pedagogical process of formation of both the philosopher and humanity, described by Hegel, which leads from natural consciousness – which opposes subject and object – to absolute consciousness – which recognises the identity of subject and object – is perfectly consistent with Marxian positive humanism.

As Lukàcs noticed, what Hegel lacked was to have considered the reconciliation of man and world only from an ideal point of view, thematising in the Absolute Knowledge the identity of reason and history. At stake there was therefore the historical realisation

21 Marx 1973, 678.

22 Lukàcs 1971, 83.

23 Finelli 2016, 14.

24 Hegel 2018, 20.

25 Vitiello 1992, 36.

26 Marx 2007, 125.

of this unity through a project to which Marx gave voice²⁷. However, just as in Hegel's phenomenological framework, according to Marx's humanism, man is the principle of the progressive rationalisation of reality. In this perspective, both authors share the faith in man's dialectical relationship with spatial being, that is, the faith in the praxis as the principle of mediation of two separate terms, historical consciousness and the objective world, and, therefore, the faith in the teleology of reason as the principle of spiritualisation of the real.

We can guess that this is the Spirit of Industry, that is, the image of the world that emerges when the industrial system defines the spaces and times of life. It is, in fact, built on a series of boundaries and binomials: it is given a privileged space of production, the factory, as a system of machines, separated from the space of life. Similarly, it is set a clear division between manual and intellectual labour, the former belonging to the worker who performs mechanical tasks and the latter belonging at first to the industrialist and the capitalist, although it is progressively delegated to other employees who organise the productive practice. Through this delegation, the figure of the Fordist and Taylorist manager emerges: his task is to define, through a continuous observation of the workers, the movements that the individual workers must perform in order to obtain a maximum output with a minimum of effort. This allows not only to exclude those unproductive movements of the workers' bodies, but also to transform the multiplicity of workers into a machine driven by a single rationality imposed extrinsically by the scientific management²⁸. It, therefore, deepens and intensifies the features of the industrial production described by Marx; this strategy can be understood as a tactic necessary in order to produce a relative surplus-value, i.e., as a logic that leads to the extraction of more value through a rationalisation of praxis²⁹.

Gramsci, facing this production strategy, stated that the goal of Fordist and Taylorist scientific management was to produce a new type of worker, resembling a trained gorilla, who develops the mechanical possibilities of his body, excluding any element of spirituality³⁰. He was therefore transformed into an element of a technical gear, into a machine, and for this reason degraded to a trained animal. Socialisation within the factory is therefore presented as an external fate, as a heteronomous imposition, and the symbol of this exteriority, that dominates the productive relations, is the machine as fixed capital, as an instrument of accumulation that dictates the rules and the rhythms of the productive praxis of the workers' bodies, mere accessories of a technical-industrial apparatus.

In our view, however, the image that best reveals the boundary between the human and the inhuman is the chronometer. Foucault stated that the *enjeu* of Fordism is the sequestration of time, that is, the reduction of the rhythm of life to the rhythm of the machine clock³¹. The temporality, which regulates practices within the factory, is objective, external to the rhythms of bodies; it determines in detail the different

27 Lukàcs 1975, 537.

28 Taylor 2020, 28.

29 Marx 1990, 429.

30 Gramsci 2014, Q. 22, 2146.

31 Foucault 2015, 230.

moments of the working day by assigning them defined tasks: in other words, it transforms the body into a predictable machine that follows a script defined by the rhythms imposed by the chronometer of industrialists and managers. The Marxian theory of value is also built on this same objective and external temporality: exchange value is defined, in fact, on the basis of the average amount of time required to produce a certain commodity³². This requires, therefore, a uniform unit of time measurement that can calculate how long it takes to manufacture a certain object. But this can be applied only to the material production, i.e., when the rhythm of production is objectively marked by the machine and chronometers.

The unprecedented automatization of the work in the Fordist factory, that made the worker similar to a soldier molecularly normalized to the military discipline, had such an impact on the observers of the first decades of the 20th century, that it was considered not only as a paradigm of a new social organization but also as a symptom of a metaphysical and anthropological turn. According to Jünger, in fact, the trend to the automatization attested to the emergence of a new kind of humanity: *der Arbeiter*³³. “It” is not an “I”, a new subject, but a form – in the Platonic and Aristotelian sense³⁴ – that is a metaphysical principle that gives new regularities to the human spaces and activities. Jünger, in other words, understood that the mechanization – typical of the *Arbeiter* – was not confined in the factory but was about to produce a new configuration of life. Society too, therefore, appeared as a gear structured through impersonal regularities aimed at the total mobilization, where the individual became replaceable and reproducible³⁵.

But it should be underlined that also the Fordist social “megamachine”, described by Jünger in its impersonal traits, has a theological-political root. Mumford shows, in fact, how its archetype is the pyramid, whose apex is occupied by the king that gives uniformity to the social organization³⁶. In other words, it presupposes the division of labour – manual and intellectual – and an epistemological privilege, embodied in the Fordist epoch by the manager or by the administrator. Only on this binary basis it is possible to understand why the *Herrschaft und Knechtschaft* dialectic has been used to describe the modalities of the human emancipation. It had to pass through the teleological “reversal” of the reality: the Slave had to develop the intellectual potentialities and the Master had to accept manual work. In other words, all bodies had to be spiritualised in order to express the human essence that in a split society is never fulfilled³⁷.

To sum up, the industrial production separates living time and working time, as well as the spaces of work and life, and – the most important point – workers’ bodies from the human intellect. All these boundaries, therefore, give rise to a Human-form described in terms of separateness from mechanical and natural objectivity, that is, as a

32 Marx 1990, 293.

33 Jünger 1981, 7.

34 Vitiello 1992, 66.

35 Jünger 1981, 59.

36 Mumford 1966, 194.

37 Kojève 1969, 9.

consciousness that must spiritualise the world in order to grant a human sense even to those bodies that oscillate between life and work. We therefore find again the trinomial of industrial production, humanistic subjectivity and the history of freedom.

3. The bioeconomic Cyborg

Bioeconomy, or cognitive capitalism, in which intellectual and relational skills are functionalised in the view of accumulation, has led to an overcoming of the binomials that characterised industrial production. In other words, the boundaries, material and immaterial, of production become blurred. If the privileged place of Fordist production was the factory, in the case of cognitive capitalism it is impossible to identify a confined space from which value is extracted. Not only because consumption and desires (more and more stimulated) also tend to become immediately productive of value, as noted by Fumagalli, in the case of immaterial and intellectual goods that can be purchased online³⁸. This is all the more true to the extent that the management of data and its control take on an ever-increasing centrality in the production of value. This is the case of platform capitalism, which, as Srnicek states, presents itself as a new model of value extraction following the decline of industrial production. It turns to a new material, data, which records the activities and traces that each person leaves behind when surfing the web³⁹. Value-producing work therefore leaves the factory and identifies with life itself and its spaces.

Consequently, this relocation of production defines a new configuration of labour, which is no longer characterised in terms of quantifiable *force* exchanged for a certain amount of time. On the contrary, capital is valorised through intellectual and relational skills, skills rooted in bodies, which are reproduced and enhanced at every moment of the day. When at stake there is the production of codes, languages, affects, relationships, it is the whole of life, and the bodies that support it, that is put to work: the boundary between production and reproduction thus also disappears. These are the traits that characterise biopolitical production⁴⁰. In other words, the boundary between the place of work and the place of life is dissolved, it is the life space in its totality that is productive of attitudes, ideas, information: the metropolis is, therefore, the horizon of work.

But if this is true for the spaces of production, it is all the more true for temporality. If in the industrial system production was marked by an external chronometer capable of regulating and quantifying labour, in the case of the bioeconomy there is no objective measure, i.e., external to bodies, capable of imposing itself on praxis: it is the cognitive and affective capacities of workers that dictate the rhythms of production. Certainly, the attempts to govern labour through management are not abandoned, although the disciplinary rigidity on which they were built tends to be less and less effective and therefore increasingly useless in a phase in which intellectual, creative and affective

38 Fumagalli 2011, 113.

39 Srnicek 2017, 29.

40 Hardt and Negri 2000, 22.

talents, and the temporalities immanent to them, irreducible to the molecular control of the factory clock, are released: here the worker gains greater autonomy. This leads to the crisis of the quantitative theory of value outlined by Marx, according to which time is the measure of value. In fact, the more the objective chronometer of labour fails, the more the rhythms of production become incalculable and, therefore, value can no longer be determined in terms of the time required to produce a certain commodity⁴¹.

To summarise, the objective machine that calculated working time is internalised by bodies, so that the distinction between life and work tends to be blurred. This is not only in the sense that the rhythms of life tend to invade the rhythms of work and vice versa, but above all because it is life in itself that is productive of value: the reproduction of this life, with the intellectual development and the deepening of relational and affective skills, is what enables the production of value.

If in the case of Fordist production the worker was reduced to a machine-body, in the case of the bioeconomy the worker must be able to develop creative and communicative skills; the spirit that was considered extraneous to the workers' body is now incorporated into them. In their reconstruction of the genesis of cognitive capitalism, Vercellone and Giuliani have, in fact, shown how the latter emerged as a result of the democratisation of education, i.e., through the generalisation, internalisation and empowerment of the bodies' intellectual capacities⁴². In man, therefore, the boundary between *res cogitans* and *res extensa* tends to become increasingly blurred, just as the separateness of consciousness appears in less and less clear forms.

In addition, the diffusion of machines in everyday life tends to reduce the distance between the human body and the mechanical one; not only because the latter increasingly appears as a prosthesis – an internalised tool that opens up new potentialities, new dangers and new forms of power to the body, that is a new vital space – but also because the machine begins to take on more and more human features, as in the case of AI. In particular, the development of bio- and nanotechnology – products of intellectual work – has transformed the body into an organism that is available to be modified by technology: biological and non-biological organisms therefore present themselves as codified devices that can translate into each other, integrating and modifying themselves in complex forms, thus blowing up the boundaries that guaranteed the identification and differentiation of animal, spiritual and mechanical elements.

In other words, all essentialism disappears while, on the contrary, a plane of immanence without a centre seems to open up, a world in which cultural, technical and biological elements articulate themselves, mutually determining each other in alternative measures and forms. We can probably say that the imposition of the bioeconomy does not only imply a new way of extracting value; rather, it defines a new way of inhabiting the world in which the real is presented as a natural-cultural-mechanical complex and the subject as a cyborg. As Braidotti puts it,

contemporary bio-genetic capitalism generates a global form of reactive mutual inter-dependence of all living organisms, including non-humans [...] a global sense of

41 Vercellone and Dughera 2019, 34.

42 Vercellone and Giuliani 2019, 13.

inter-connection between the human and non-human environment [...] The post-human recomposition of human interactions that I propose [...] is an affirmative bond that locates the subject in the flow of relations with multiple others⁴³.

But also capitalist power relations change when production becomes immaterial. In particular, labour is greatly enhanced by cognitive development; it assumes the capacity to coordinate and regulate production processes that were previously the monopoly of the industrialist or manager. That is, the distinction between intellectual and manual labour typical of Fordist production, which legitimised the role of the capitalist and his profits in the production process, disappears. This is confirmed by the progressive identification of fixed and variable capital; if in the case of Fordist production, the machine dictated the rhythms of production – because it was the fixation of prior production processes, while variable capital was an abstract and disciplinable force – in post-Fordist production, the result of accumulated knowledge is knowledge itself, that can regulate production practices: fixed capital is the body of workers, i.e., variable capital, which from generation to generation is strengthened by inheriting past labour. Hence, labour assumes an extremely greater autonomy as it incorporates intellectual and managerial skills. From this perspective, therefore, capitalist extraction, the profit of capital that used to be justified on the basis of the organisational intervention of the industrialist, increasingly appears as rent, as a distributive process that transforms collectively produced value into property⁴⁴.

Moreover, alongside the transformation of capital into rent, the incorporation of reason into productive bodies, the overcoming of the distinction between intellectual and manual labour, makes possible the emergence of a new antagonistic subjectivity that opposes the mechanisms of value extraction that invade life. By subjectivity, on the other hand, we do not mean here a separate consciousness, but a complex cyborg identity, traversed by natural, cultural and mechanized elements, whose autonomy is given by the internalisation of strategic aptitudes previously excluded from workers' bodies. In the case of industrial production, in fact, the machine-body of the workers was to a certain extent always heteronomous, not only because it was forced to follow the dictates of the technical apparatus, but also because each constituent attitude was mediated by an external agent, the intellectual, who, as Traverso notes, came from the bourgeois class although he detached himself from it by joining the proletariat, to which he offered a comprehension of the world in order to construct a class consciousness, a synthesis of popular needs and strategic rationality⁴⁵.

On the contrary, through the development of immaterial production and of intellectual qualities of those bodies that produce value, a potentially antagonistic subjectivity does not need to receive a strategy of action from the outside; it is, on the contrary, autonomous, definable in the terms of that collective intellectuality, "the general intellect"⁴⁶, which Marx had glimpsed, but which can materialise and

43 Braidotti 2013, 50.

44 Vercellone and Dughera 2019, 40.

45 Traverso 2021, 229.

46 Marx 1973, 706.

act historically only in a phase in which the productive bodies re-appropriate the knowledge necessary to organise the world autonomously. This subjectivity can, therefore, emerge and be constituted as a political subject through the shared practices of those cyborg bodies – empowered by rational aptitudes and by the possibilities offered by technology – whose *vis viva* is that constituent power that allows to rewrite social regularities. It should be added that also the role of the professional intellectual takes on a different configuration: rather than directing and educating, as Hardt and Negri note following Foucault, he only provides the intellectual tools that political agents can use to define the aims and the strategies of their praxis⁴⁷.

Bioeconomy therefore overturns the humanism of the Fordist spirit and its teleology, based on the separation of consciousness from the machine and nature; on the other hand, however, it gives rise to a cyborg Self that, through the blurring of *res cogitans* and *res extensa*, allows for an empowerment of labour and, therefore, of life, of that constituent *vis viva* capable of autonomously redefining social regularities; that is, capable of producing a self-government in which the goal of cyborg bodies is their own indefinite empowerment. On this basis it is, therefore, possible to imagine a new humanism, a cyborg humanism based on the life-form of poverty.

4. For a cyborg humanism of poverty

In our view, it is possible to identify the features of a new humanism that rejects the separation of the subject, whose expansive power is teleologically directed towards the spiritualization of the world. At stake there is the elaboration of a humanism, whose aim is the liberation of a cyborg life, whose possibilities are expanded through bioeconomic development. In other words, it is necessary to liberate the constituent and creative power of labour from the capitalist subsumption that functionalizes life to accumulation, leaving it in a state of perpetual precariousness⁴⁸. According to Hardt and Negri, in fact,

Donna Haraway [...] insists on breaking down the barriers we pose among the human, the animal and the machine [...] Antihumanism, then, conceived as a refusal of any transcendence, should in no way be confused with a negation of the *vis viva* [...] Once we recognize our posthuman bodies and minds, once we see ourselves for the simians and cyborg we are, we then need to explore the *vis viva*, the creative powers that animate us as they do all of nature and actualize our potentiality⁴⁹.

It is, on the contrary, the capitalist production that mortifies the *vis viva*, transforming living labour and operational capacities into merchandise, dead and quantified labour, abstracted and separated from the bodies of the producers; a new humanism, therefore, must move towards the empowerment of life, that is, towards the self-empowerment

47 Hardt and Negri 2017, 12; Foucault 1980, 62.

48 Fumagalli 2011, 201.

49 Hardt and Negri 2000, 91.

of that complex self – the cyborg – composed of natural, cultural and mechanical elements. For Hardt and Negri, it is possible to delineate this new humanism by building it on the pivot of “Poverty”⁵⁰. This perspective also makes it possible to identify, within Marxian work, elements that subtract the German philosopher from the spiritualist conception that runs through the pages that deal with the relationship among man, machine and animal⁵¹.

Marx, in fact, had described living labour, i.e., the productive capacities of bodies, in terms of absolute poverty, as power exceeding all measures and therefore lacking limit and determination; he had therefore thematized that *vis viva* – which cannot be reduced within the limits of a separate consciousness that alienates itself in the forms of extension – that constituent and creative power identified with the corporeity of the worker (a corporeity that is less and less unilaterally natural and increasingly technicalised). On the contrary, says Marx, the wealth accumulated and separated from labour, capital, insofar it is quantified and determined, is limited, unproductive⁵². The poverty of labour, therefore, rather than indicating a lack, indicates a possibility and a boundless power that allows – if set free from the processes of accumulation, extraction and concentration of wealth – to indefinitely empower cyborg bodies. Therefore, between capital and labour there is a sort of incommensurability and irreducible antagonism: the former exists only in its extractive power and is, therefore, heteronomous, while labour – although *subjected* within the mechanisms of production – is that autonomous and self-determining *subjectivity*⁵³. In other words, this exceeding poverty attests to the possibility of a life not reducible to property⁵⁴.

To put it in Marxian terms, at stake there is the reactivation of a use value, subordinated in capitalist production to the exchange value, an abstraction – quantity separated from the quality – based on an ideal splitting and on a “double existence”⁵⁵ of goods. Exchange value is, therefore, that phantasmatic presence that overlaps commodified bodies, made functional to the wealth accumulation. This translation of the reality, that is of a system made up of natural, cultural and mechanical elements, into the language of the exchange value is the condition of possibility of the extractive operations of the capital⁵⁶, that interprets the cyborg *vis viva* and its complex environment only in quantitative terms, that is as appropriable commodities useful for the surplus-value extraction through their exploitation and their qualitative degradation. On the contrary the exceeding power of the cyborg poor *vis viva* has to produce new forms of life through the production of the “Common”⁵⁷. In contrast to the capitalistic detachment of things from themselves, the use in common of the complex social environment, that guarantees universal access to the natural, cultural and technical products, is aimed at

50 Hardt and Negri 2000, 174; Hardt and Negri 2009, 39.

51 Negri 1979, 160.

52 Marx 1973, 295.

53 Nigro 2023, 65.

54 Agamben 2011, 10.

55 Marx 1973, 145.

56 Mezzadra 2008, 106; Mezzadra, Neilson 2019, 133.

57 Hardt, Negri 2009, VIII.

organizing the social reality and the social activities in the view of the releasing of the bodies' potentialities.

But a cyborg humanism shouldn't fall back in the traditional humanism that separates human essence – culture – from nature, considered just as a fund to exploit, and machines, taken as a threat if not spiritualized. The cyborg body, on the contrary, can only be empowered if a new environment, capable of balancing and integrating these elements, is produced. It means that this humanism corresponds to an ecology, or better to a *techno-ecology*, that is to the production of systemic regularities, that articulate and translate the mechanical, cultural and natural languages, necessary to the releasing of the bodies' *vis viva*. In other words, against the capitalistic translation of the complex reality in the simple language of the exchange value, it is required a different translation and, therefore, a new cyborg language – centred on the pivot of the “Common” and of “Poverty” – that recognizes the intrinsic reciprocal relation of biological life, consciousness and technique. This *techno-ecological-humanism*, in order to explore the cyborg *potentia*, has therefore not to privilege one of these elements over the others, but to keep them in their impure symbiosis.

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