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TURNING CONTRADICTIONS INTO SUBJECTS: THE CULTURAL LOGIC OF UNIVERSITY ASSESSMENT

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ABSTRACT. This paper examines the conceptual relationship between the notion of assessment and the law of value. Framed within the theoretical context of the Grundrisse, it locates the crisis of the law of value in the transition between industrial and cognitive capitalism. In this context, universities are analyzed as the new frontier of accumulation, the feeding ground meant to perpetuate and conceal the crisis of the law of value and make up for the crisis of measurability of control. Looking at assessment as the very embodiment of the law of value, I argue that while the restructuring of education promises efficiency, productivity and excellence, assessment looks like a desperate attempt to sacrifice progress in the name of control, the ultimate manifestation of an ancient prophecy whereby “beyond a certain point, the development of the powers of production becomes a barrier for capital; hence the capital relation a barrier for the development of the productive powers of labour” (Marx, 1973:749).

Keywords: Grundrisse; assessment; accumulation; crowd-sourcing; neoliberal university; cognitive capitalism

Economy of time, to this all economy ultimately reduces itself

K. Marx

1. Introduction

This paper discusses the neoliberal reform of higher education within the theoretical framework of Marx's *Grundrisse*. The reason for such a theoretical framework lies in the necessity to re-think the neoliberal reform of education within the context of the economic crisis. The *Grundrisse* is the book of the crisis. Marx wrote feverishly for whole nights like “a condemned man” (Marx, 1857) in order to enable the tremendous foresight of theory to anticipate the

catastrophe, as he calls it, in an organized insurrection. Marx describes the crisis as an eruption. It is the irreconcilable antagonism synthesized by the law of value which erupts during the crisis. The goal of this paper is to highlight the relationship between the economic crisis and the neoliberal reform in education by considering assessment as its distinctive feature and its root to be the law of value itself.

Generally speaking, the neoliberal reform of higher education has been widely analyzed in recent years. Most critics have exposed issues related to the enclosure of knowledge, the higher tuition costs and the private governance of public universities. However correct, such interpretations posit a conceptual discontinuity between the function of education as a public service and the role of knowledge in a knowledge-based economy, thus failing to account for its actual subsumption to the process of capitalist reproduction and often resolving into a moral account of whether or not the privatization of knowledge is efficient or inefficient, right or wrong. Interpreted within the theoretical context of the *Grundrisse*, my thesis is that universities represent the new frontier of accumulation, the feeding ground meant to perpetuate and conceal the transition between industrial and cognitive capitalism. Following the theoretical hypothesis of cognitive capitalism, I locate the suspension of capital at the end of the Fordist era, a transition that we could visualize like a “double spiral or a double windmill of parallel convergences” (Negri, 1991:137) where the positive-sum-game of the Fordist era becomes a negative-sum-game. Here, universities become the contended womb that produces individuals, value and truth. Hence, when the crisis of the law of value manifests itself in:

1. the displacement of capital on the outside of the production process in the naked form of command;
2. growing rates of unemployment and precarity;
3. a diffuse intellectuality; assessment is the modulating principle that capital uses to move beyond its limits, thus concealing the growing divorce between the logic of wealth and the logic of value, and making up for the crisis of measurability of control (Vercellone, 2012). More specifically, it:
4. provides credit according to merit, where merit is the incarnation of the law of value and credit is a function of competition;
5. it acts as a filter of individuals and knowledge, or rather, as Arrow argued, as “a screening device, in that it sorts out individuals of differing abilities, thereby conveying information to the purchasers of labor” (Arrow, 1973:194);
6. it transforms necessary labor into a function of superfluous labor thus pushing the limits of capital onto the body and transforming the incarnation of the law of value into the only condition for reproduction.

7. The impact of assessment on labor brings us right in the middle of the Fragment on the Machines. Here, the law of value is posited as a seductive ontology that promises merit as a reward for self exploitation, hence giving capital the ultimate command over what knowledge is produced and for what purpose.

8. Yet, in intellectual production the law of value:

9. normalizes abstraction as the constitutive quality of knowledge, as its very quality will be its quantity and its use value will be its exchange-value

10. produces obscurity instead of light thus eroding the very foundations of intellectual production, i.e. the very forces that capital used to recover its profitability outside the productive process.

11. Hence, while the restructuring of education promises efficiency, productivity and excellence, the neoliberal university seems incapable of producing knowledge, even worse than that, it seems to destroy it. In this context, the enforcement of the law of value sounds like a desperate attempt to sacrifice progress in the name of control, the ultimate manifestation of an ancient prophecy whereby

“Beyond a certain point, the development of the powers of production becomes a barrier for capital; hence the capital relation a barrier for the development of the productive powers of labour” [...] This is in every respect the most important law of modern political economy, and the most essential for understanding the most difficult relations” (Marx, 1973:749).

2. On wealth

Marx describes wealth in a few simple ways. For labor, wealth is disposable time.

“Wealth is not command over surplus labour time’ (real wealth), ‘but rather, disposable time outside that needed in direct production, for every individual and the whole society” (Marx, 1973:706).

“The free development of individualities, and hence not the reduction of necessary labour time so as to posit surplus labour, but rather the general reduction of the necessary labour of society to a minimum, which then corresponds to the artistic, scientific etc. development of the individuals in the time set free, and with the means created, for all of them” (Marx, 1973:706).

Ever since the “early and rude state of society”, to quote Adam Smith, wealth is posited. Posited is the word Marx uses the most in the *Grundrisse*, several hundred times. To “posit” means to

presuppose, to believe, to postulate, in a sense it means to assume as truth. That may be a good place to start in order to explain the meaning of the law of value, for Marx. In fact, labor and capital both posit wealth. For labor, wealth is time. It is the abundance of the riches of production made available in their tangible form. For the accumulating individual, wealth is money: capital knows no use value nor consumption, but the mere monetization of abstract wealth as represented by money. Wealth in the form of riches “is lost, and this disappearance is the only possible way to secure it as wealth” (Marx, 1973:234).

Hence, since the “early and rude state of society” the worker alienates his capacity for labor, his creative force under the appearance of an equal exchange relation in order to respond to the necessities of reproduction – wage promises to restore labor’s own use value. For capital, necessary labour has no value in itself, it exists only as limit to surplus value. Hence, the laborer who consumes his disposable time for himself, “robs the capitalist” (Marx, 1992:342)¹. The logic of separation which constitutes the law of value “and which is constantly about to explode-more and more impetuously” (Negri, 1991:105) is the intimate soul of capitalist development. This antagonism is the limit that harnesses capital, and at the same time, it is the propulsive heart of its development.

“Capital’s ceaseless striving towards the general form of wealth drives labour beyond the limits of its natural paltriness, and thus creates the material elements for the development of the rich individuality which is as all-sided in its production as in its consumption, and whose labour also therefore appears no longer as labour, but as the full development of activity itself, in which natural necessity in its direct form has disappeared; because a historically created need has taken the place of the natural one. This is why capital is productive; i. e. an essential relation for the development of the social productive forces. It ceases to exist as such only where the development of these productive forces themselves encounters its barrier in capital itself” (Marx, 1973:325).

Marx explains the entire history of capitalism through the law of value, locating its neuralgic core in the separation between necessary and surplus labor and its extension within the sphere of circulation. Here, what was directly united in the commodity, namely use value and exchange value, is on the edge of divorce and separation, just like in circulation production and sale may become “indifferent to one another and separated in place and time” (Marx, 1973:198), hence leading to violent explosions. In both cases the barrier between use value and exchange value is the propulsive heart of capitalist development, because both labor and capital posit their realization beyond it. Hence, capital posits

necessary labor only as a barrier to surplus value, and circulation only as a barrier to realization. Yet, circulation is “an inescapable condition for capital, a condition posited by its own nature, since circulation is the passing of capital through the various conceptually determined moments of its necessary metamorphosis - its life process” (Marx, 1973:658). In the same way, labor is the very use value of capital, though capital doesn't really care about having any.

From the “early and rude state of society”, the law of value is the very driving force of capitalist development: capital strives to suspend labor and emancipate itself from it, just like labor struggles to emancipate itself from capital. In Marx's historiography the antagonism between capital and labor doesn't change; it is knowledge which shapes their relationship and transforms it². For labor, knowledge represents the ability to control “the conditions of the process of social life itself” and transform them in accordance with it; it is “the organs of the human brain, created by the human hand”, “the expression of human will over nature, or of human participation in it” (Marx, 1973:706). For capital, knowledge is that which allows it to restrict labor and suspend it. Hence capital constantly enlarges and revolutionizes the method of production and the means of production, draws on a greater division of labor, on a greater employment of machinery, upon a larger and then a still greater scale to increase the mass of profits, while at the same time it tries to restrict necessary labor-time and circulation time to zero.

Several authors have read capitalist development as an inevitable proliferation of disproportions. Paraphrasing Bologna, we could say that without a disproportionate increase of surplus labor there could be no increase in the mass of profit, without a disproportionate increase in the mass of profit there could be no increase in the organic composition of capital, without a disproportionate expansion of money supply and credit there could be no realization of industrial capacity; and without the intelligence of the laborers there could be none of the above at all. Yet this may take us too far. More than anything, we are interested in two turnouts: first, the role of knowledge in generating such disproportions. Second, the layout of the crisis as it erupts.

In fact, knowledge is that which shapes the relationship between capital and labor, the image of their antagonism, its very mirror and truth. At the same time, it is the shape of their desire, the phantom which pulls their languor beyond its limits, the inebriating image of their longing. In this sense, it is both the path and the destination, the nerve center of dialectics and conflict. Hence, in its feverish agitation to expand on a more gigantic scale capital incorporates science in its own metabolism in order to make the creation of wealth independent (relatively) of the labour time employed on it (Marx, 1973:706). Resting on the assumption that realization is: “totally identical with the production of surplus labor (the objectification of surplus time), and hence appears to have no bounds other than those partly presupposed and partly

posited within this process itself”, capital uses “the inanimate limbs” (Marx, 1973:693) of technology as a decoupling principle among workers, it develops science to command it and restrict it. At the same time the development of science is inseparable from labor. For labor knowledge is the very art of liberation, the unfolding of subjectivity, the repudiation of subjugation.

Here two main contradictions erupt.

To keep it simple, we could say that the unequal relationship between the worker as a producer and the worker as a consumer as represented by the disproportion between necessary and superfluous labor, drives capital beyond its limits: its desire to suspend labor, that is, that which is the very source of its realization, and the desire to restrict its power, in other words, that very innovative capacity of knowledge, that which allowed capital to bloom.

Hence, when capital “calls to life all the powers of science and of nature in order to make the creation of wealth independent (relatively) of the labour time employed on it” (Marx, 1973:706), we are immediately faced with the very barriers of capital. On the one hand, capital incorporates science in order to restrict labor, which is at the same time its source of realization; on the other hand, it pushes for the development of the forces of material production, “which is at the same time a development of the forces of the working class”. Here, Marx says, capital “suspends itself” (Marx, 1973:543).

3. The transition from industrial to cognitive capitalism

Following the theoretical hypothesis of cognitive capitalism, we can locate the suspension of capital in the historical transition from industrial to cognitive capitalism, a transition that we could visualize like a double spiral or a double windmill of parallel convergences where the positive-sum-game of the Fordist years becomes a negative-sum game.

By the end of the late Seventies the limits of capital manifest themselves in the material barrier represented by the tremendous productive power of the global plant, which implies a proportional restriction of living labor, and in the political barrier represented by the development of a diffuse intellectuality, the most informed and aware generation in human history. Here we have a number of inversions:

1. From real subsumption to the general intellect
2. From profit to rent
3. From the free circulation of knowledge to its (attempted) enclosure

Notably, industrial capitalism rested on real subsumption.

As Vercellone (2007:16) points out, industrial capitalism rested on an accumulation regime founded on large factories, specialized in the production of mass, standardized goods and marked by a clear separation between the time

of production and the time of consumption, as well as by the separation of intellectual from manual labour.

Several authors have rightfully highlighted the centrality of silence: how communication was displaced outside of the productive process. Braverman described how engineers and managers gathered the traditional knowledge of craftsmen and manufacture workers, and reduced it to “rules, laws and formulae” (Braverman, 1974:112). The techno-scientific management decoupled the autonomous temporality of labor and expropriated knowledge to control time. Classifying, tabulating, and concentrating all brain work was central so as to prescribe to workers exactly what they should do, how and how fast they should be performed. In a sense, here science was a partner in crime. During the early years of industrial manufacturing, the most advanced mathematical techniques of engineering and industrial management, the mathematization of economics were all intended to accelerate the speed of production and its efficiency: by producing more, at a lower cost, in less time, the law of value rewarded capital with profit.

During those years, the logic of separation which informs the law of value, found a precarious unity in the wage form, which functioned as a “veil of mystery which enveloped work” (Negri, 1991:134) and reassured that the power of living labor would be restored by transforming a certain proportion of profit into wages. The wage form extinguished every trace of the division of the working-day into necessary labour and surplus labour, into paid labour and unpaid labour and acted like a moral reward for objectification.

“We may therefore understand the decisive importance of the transformation of the value and price of labour-power into the form of wages, or into the value and price of labour itself. All the notions of justice held by both the worker and the capitalist, all the mystifications of the capitalist mode of production, all capitalism’s illusions about freedom, all the apologetic tricks of vulgar economics, have as their basis the form of appearance discussed above, which makes the actual relations invisible, and indeed presents to the eye the precise opposite of that relation” (Marx, 1992:680).

Wages and social wages provided stability to the relationship between capital and labor, while the gradual development of universal and national programs for Research and Development were crucial to its growth.

During the Fordist years, National Research Councils, R&D and national research centers were established throughout the West while policies of universal education started to take shape. Such feverish agitation rested on the need to expand more rapidly and on a more gigantic scale. At the same time, welfare policies such as universal education were the ‘first and meagre

concession wrung from capital' in return for a stable work-force. In a nutshell we see here two dynamics that are fated to become dominant in the decades to come.

One the one hand, the role of science in the mobilization and in the co-operation of knowledge as far as capital's own reproduction is concerned. On the other hand, the development of a diffuse intellectuality. In fact, knowledge as a non-rivalrous and non-excludable good, meaning that it's undiminished by consumption, but it is multiplied by sharing. Hence, during the years of industrial capitalism, labor and capital are constantly pushed back to the point of mediation, profit becomes investment and becomes wages, social capital appears as a mediator and as a sociality but capital is still productive: it produces development and it develops knowledge, hence shaking subjugation to the core.

At the end of the Seventies, the technical and organic composition of capital increases to such an extent that, "at the height of its development, in a specific organic composition of capital (i.e., the relationship between constant and variable capital), Fordist capitalism was no longer able to suck surplus-value from working-class living labor" (Marazzi, 2011:30). As Gramsci outlined in the Prison Notebooks (Gramsci, 1999:280)³, in the long run, the organic composition of capital grows to such an extent that the rate of profit will fall even if the rate of exploitation is rising. Now, capital's attempt to break and suppress its limits, i.e. the disproportion between necessary labour and surplus labour, between variable and fixed capital as intended within the framework of the growing organic composition of capital, appear as violent separations. In fact:

1. the conflict between labor-time and disposable time;
2. the conflict between knowledge as innovation and knowledge as power;
3. the conflict between production and consumption;

appear as no longer antagonistic elements continually pushed back to the point of mediation, but beyond the point of contradiction in their separate form, in their naked antagonism.

4. The suspension of capital

Here, it is important to figure out what the crisis entails, i.e., the layout of the crisis at the time of the crash. In fact, the growing divergence between the logic of value and the logic of wealth ultimately unveils in the actualization of two fully developed subjects, capital and labor. Marx located the emergence of capital as a subject in industrial capitalism, when for the first time social capital posits itself as mediator between individuals, "capital posits itself as sociality,

as the capacity to engulf within its own development, in an ever more determined manner, every socially productive force” (Marx, 1973:701).

When the crisis erupts, capital is sidelined.

In a beautiful passage where Marx speaks the mind of the accumulating individual, “money in its final, completed character now appears in all directions as a contradiction, a contradiction which dissolves itself, drives towards its own dissolution”. In fact money, as a material representative of general wealth, it is realized only by being thrown back into circulation. Yet, “for the accumulating individual, it is lost, and this disappearance is the only possible way to secure it as wealth” (Marx, 1973:233-234). Hence, in its final development capital steps to the side, while all of the riches stand opposite it. In a sense, we are back to our disproportions: the disproportion between production and consumption, as an effect of the law of value, the disproportion between the tremendous abundance of wealth and its privatization.

Hence, when the crisis erupts, capital appears as a subject: “the first complete form of a modern monetary system, the centralized government of liquidity”, a “totalitarian subjectivity of command” (Bologna, 1973).

This is particularly important to keep in mind because at this stage, the general conditions of the process of social production will be not paid out of deductions of the social revenue, but rather out of capital as capital. Marx writes:

“the highest development of capital exists when the general conditions of the process of social production are not paid out of deductions of the social revenue, the state's taxes- ...- but rather out of capital as capital. This shows the degree to which capital has subjugated all the conditions of social production to itself on one side; and, on the other side, hence, the extent to which social reproductive wealth has been capitalized” (Marx, 1973:532).

At the same time, labour also steps to the side.

The full development of capital describes the most educated generation in human history, a diffuse intellectuality that is no longer constrained within the space and time of the plant. As Vercellone puts it, cognitive capitalism questions:

1. “the opposition production/consumption (or work/leisure);
2. the opposition education/productive activity;
3. the ternary cycle of life which provides the rhythm for and separates the time of formation from that of active life and finally from that of retirement (2005:6).

Hence, at the end of Fordism labour is displaced outside the process of production in the form of an independent subject.

5. A crisis of measurement and control

The crisis of Fordism and the interruption of accumulation bring about a profound metamorphosis in the production of surplus-value that transforms the new technologies and finance in the new frontier of valorization. Starting from the Seventies: manufacturing “lead a trend towards the “financialization” of the non-financial economy” (Arrighi, 2007:140), as part of “the endless attempt of capitalist companies—under the demands of their owners and investors—to bring the profit rate back up, using various techniques, to the highest levels of twenty years before”⁴. Notably, this goes hand in hand with a generalized decrease in wages, a violent process of downsizing, reengineering, outsourcing, labor flexibilization and growing precarity.

Once again, the crisis of Fordism unveils a number of disproportions:

- a violent process of labour flexibilization and precarity;
- emerging clusters of high-tech industries, marking a profound transformation in the accumulation regime and a new international division of labour based on the central role of science and innovation, information and communication technologies;
- a growing cleavage between a higher rank of high-tech specialists and growing numbers of precarious workers, unpaid labor and needs;
- a massive disproportion between the valorization of knowledge and the devalorization of the workforce, as well as between the old Fordist investment policies in welfare institutions and the new market demands;
- a disproportion of visions and desire, as if the opposite notions of wealth for labour and capital were producing two different societies torn apart.

After the 1970s, when the simultaneous increase of school participation rates and earned incomes in advanced industrial market economies started to split due to growing unemployment rates and stagnating incomes, advocates of human capital suggested that changing education standards was crucial to rejuvenate economic growth.

The idea was that the quality of schooling was responsible for “the breakdown of the learning-earning connection” (Livingstone, 1997:19), hence education standards must be changed so that human capital creation could lead to higher productivity and renovated profits. Here, the assumption was that growth could be endless and that profits could grow without limits if

only human resources and peoples' learning capacities were effectively exploited.

The idea is that in order to sustain a positive growth rate of output per capita in the long run, there must be continual advances in technological knowledge in the form of new goods, new markets, or new processes. This proposition can be demonstrated using the neoclassical growth model developed by Solow (1956) and Swan (1956), which shows that if there were no technological progress, then the effects of diminishing returns would eventually cause economic growth to cease (P. Aghion and P. Howitt, 1999: 11).

As Marazzi puts it, "Theories of endogenous growth have made it possible to break free from the neoclassical idea of a free-floating innovative knowledge situated outside the field of human action, as if it were something whispered to Robinson by his parrot, for free at that" (Marazzi, 2013: 2).

Now, knowledge was no longer on the outside of the production process. It is part of it and it was required to fuel it. Clearly, from the point of view of Marx's value theory Human Capital Theory's attempt to attribute to labor the responsibility for a limited extraction of surplus is almost funny - that's how much the mystification is heroic. It's like stealing for centuries and then demanding that the defrauded ones produce something more to rob. Yet the real problem was deeper. In fact, the decline of a disciplinary society and the suspension of labor now appeared as an unprecedented suspension, a terrifying disproportion of values and desires.

Once again, the big tension was the relationship between knowledge and power, in other words, the purpose of knowledge. As Vercellone appropriately put it: "such a dialectic of conflict-innovation-development has played a driving role in the succession of different productive paradigms which lead from the first industrial revolution to Fordism" (Vercellone, 2007:25). In fact, to capital knowledge is that which should allow it to move beyond its own "suspension". Yet, to labor, knowledge is an outside, an opportunity of liberation and separation.

Hence, since the Seventies, Human Capital theory and Endogenous Growth theory translated into policy interventions focused on human capital formations in order to synchronize the supply of human capital with the demands of the market. From the point of view of mainstream economics, this is when policy makers became concerned with education reforms, thus generally disembedding education from the national contexts and re-organizing it within new international public management templates.

In a sense this was a major squeeze, comparable for importance only to the revolution of the law of value in the 1870s. The revolution of value in 1870s was crucial to seal the subjugation of labor in the public discourse. Since then, mainstream economics has always posited real subsumption as the natural order of society and the interests of capital to be the only regime

of truth. Several economists have investigated the historical causes of the marginal revolution and its relationship with Marx's theory of value. The problem was not, however, contingent on the marginal revolution itself. More than anything, its root was the emergence of social capital as a mediator among individuals and the production of wage labor as a generalized condition of subsumption. The transformation of the economic discourse in a regime of truth in a sense was just the symbol of a society entirely subsumed to capital as its organic composition. "Political Economy can remain a science only so long as the class struggle is latent or manifests itself only in isolated and sporadic phenomena", wrote Marx (1970:14-15). In this sense Foucault's contention that "what we see appearing in the middle of the Eighteenth century really is a naturalism much more than a liberalism" (Foucault, 2008:61) describe a new idea of society, one that produced objectification as an ontology, and that posited labor as the organic composition of capital.

In this regard, neoliberal theory was not the actual cause of education restructuring. Neoclassical economics had maintained the same for decades: that the "opportunity cost" of schooling is a function of its ability to produce a greater future wealth. In other words, education is not an end in itself. Neoliberal theory was simply the theory most suited to fit the needs of a market undergoing a furious blockage in the accumulation regime and in violent need of disposing of labor in the same way as it did with any other commodity. In this sense, what was crucial was the context. Until the Seventies subjugation had gone hand in hand with an unprecedented development of the productive forces: "capital's ceaseless striving towards the general form of wealth drives labour beyond the limits of its natural paltriness, and thus creates the material elements for the development of the rich individuality which is as all-sided in its production as in its consumption", wrote Marx (Marx, 1973:325). Now that those material elements had been produced, the social order had to remain inviolate. Here, the cause for concern is the conflict between knowledge as innovation and knowledge as power; the conflict between labor-time and disposable time. In this context, while labor looked at disposable time and knowledge as an opportunity for "the free development of individualities", capital was undergoing a major crisis of social control.

We are in the middle of a major squeeze: a tremendous movement backwards of capital while all of society is moving forward, a tremendous disproportion of desire and vision. An unprecedented clash in human history, which leads to the sacrifice of progress for control. That is why during each crisis capital becomes a subject: because its brutality is now sincere, it is beyond the point of mediation. It was the sight of that brutality that confronted the neoliberal reform in education in every country with open antagonism, riots and resilient clashes. Louder and louder, we hear the specter of an old prophecy saying:

“Beyond a certain point, the development of the powers of production becomes a barrier for capital; hence the capital relation a barrier for the development of the productive powers of labour. When it has reached this point, capital, i.e. wage labour, enters into the same relation towards the development of social wealth and of the forces of production as the guild system, serfdom, slavery, and is necessarily stripped off as a fetter” “This is in every respect the most important law of modern political economy, and the most essential for understanding the most difficult relations. It is the most important law from the historical standpoint. It is a law which, despite its simplicity, has never before been grasped and, even less, consciously articulated” (Marx, 1973:749).

6. Universities as a new frontier of accumulation

Notably, the Bologna process is one of the most recent and the most articulated examples of global restructuring in education and research. Without indulging in the chronology of international treaties involving the major international institutions, financial capital, "venture philanthropists" and the likes, the global restructuring of education and research introduced “a new idea”. The idea was to make public education "accountable" for the employment rates and economic growth. "Accountable", in this context, should sound like a warning: a warning that no matter what kind of crisis in accumulation capital was undergoing, in the end “the entire scope of its relations [...] will not be touched, will remain inviolate” (Marx, 1969:30).

The neoliberal reform of education should be read within this context: the context of a rapidly shifting accumulation process. After the Seventies, the new regime of accumulation underwent profound changes. Cognitive capitalism was based on a central role of science, technology and innovation, information and communication, and financial valorization. In a sense, the organic composition of capital, evolved towards high level of disembodiment and abstraction. From Silicon Valley to the high-tech clusters, the central aspect now was the growing role of free floating knowledge, and spaces where universities, infrastructures, and venture capital could be intertwined with a global workforce, foreign workers and students. Data governance and debt governance in a sense described the dematerialization of fixed capital and its incarnation in the living body of the labor force. As Marazzi put it, the new regime of accumulation unveiled:

“The anthropogenic character of contemporary capitalistic production: a model of production of men via men, where the opportunity of an endogenous and cumulative growth is given above all by the development of the educational (investment in human

capital), health (demographic evolution, bio-technologies) and cultural (innovation, communication, and creativity) sectors” (Marazzi, 2000:109).

For the most part, this entire process was generational. The new generation of cognitive workers with precarious contracts and high skills was the symbol of the rapid shift in the accumulation regime, as well as being a symbol of the tremendous disproportion between visions and values, between the value of their knowledge and their devalorization in the labor market.

Here, the enclosure of public universities was crucial to the process of accumulation.

In fact, universities:

- provide assets: research and development (R&D) facilities, intellectual capital, intellectual property rights, and so on;

“One of the main characteristics of cognitive capitalism is, in fact, the chasm between initially very high costs (particularly due to the investments in Research and Development, marketing, etc) necessary for continued invention/innovation of products and marginal costs of additional units of products introduced to the market, the costs tending toward zero” (Cotoi, 2011:115).

- produce knowledge - here the high-tech sector and the sphere of finance are considered as parallel and partly processes;
- produce individuals as fixed capital;
- produce truth.

But that is not enough.

As mentioned above, knowledge is the watershed between two different ideas of society, the necessary ingredient for capital to emancipate itself from labour and for labour to emancipate itself from capital. In this sense, knowledge was a source of rent. Marc Levine (2013) has done some beautiful research on this; especially on how ultimately what drives the neoliberal university is a “rent-seeking coalition” of “individuals who in economic terms want to establish a regulatory framework or a policy framework in which they can, rather than generating true value, extract rent from policies”. As he went on to put it, research commercialization has become an almost “ideological contagion” that hits university administrators, entrepreneurial scientists, the bio-tech industry and big pharmaceutical industries, politicians who want to claim credit for economic development, potential local corporate partners and venture capital funds alike in order to displace private research within public institutions and use the general intellect as a source of innovation, profit and

competition. But this is not all. Universities as agents in the cut-throat competition of cognitive capitalism started financing the growing costs of research and the reduction of federal funding through debt, hence using student fees and tuition as collateral. That is particularly the case for North American universities, where not only have student fees and tuition increased to staggering levels, but universities are acting more and more like hedge funds. At the same time, while the labor market was shrinking, knowledge became central. Scarcity, inequality, subsumption: these are memories that the history of labor wants to leave behind. Hence, to quote an American student: "why is it that investing \$100,000 in a startup venture is seen as a risky move, but investing the same amount in a college degree is seen as necessary or even inevitable?" (Fan, 2013). Because knowledge is priceless. Knowledge resonates with desire. Hence, when the crisis of Fordism pushes capital to try and recover its profitability outside the productive processes, in the sphere of circulation and reproduction, universities became a new feeding ground, the place where academic research could be outsourced and put to value in order to foster innovation and competition, while knowledge as a commodity acted as a capture, an envelope for a debt-based economy that sucks value out of the sphere of reproduction directly to the financial markets.

7. On assessment: an interface between disproportions

We finally get to the notion of assessment.

The notion of assessment is crucial to the global restructuring in education. Having understood how capital went about fueling a debt-based economy to push beyond the barrier represented by the conflict between production and consumption, we still need to figure out how to resolve the other conflicts:

- the conflict between labor-time and disposable time;
- the conflict between knowledge as innovation and knowledge as power;
- the conflict between production and consumption.

The problem is still knowledge: the struggle between creative activity and abstract labor, a terrain that is "intrinsically ambiguous":

"(1) to what extent is it possible to distinguish between the learning process aimed at developing one's own culture according to an autonomously chosen logic and the process of training necessary to carry out the working activity aimed at capitalistic accumulation?
(2) To what extent is it possible to separate, within a working day, the time necessary to produce exchange value from the time necessary to produce use value?" (Fumagalli and Lucarelli, 2011:91).

As mentioned above, simply the disproportion in desire and vision, as well as the disproportion between labor-time and disposable time translated into a major crisis of control.

Here, capital is trying something difficult.

- To separate knowledge from power
- To separate abstract labor from creative activity
- To separate the individual from his intellect – McKinsey calls it “a war for talent”, as if capital could suck the genius out of the living being. As Cotoi puts it:

“the problem of human capital, similar to the problem of work/working force in Marx’s theory, is that it cannot be detached – as a system of competences that can attract revenues – from the individual that bears it” (Cotoi, 2011:115).

Now, the public discourse tells us that the process of innovative disruption at hand lays on a better “integration” between education and market needs, in other words education is posited as an integral part of a global pipeline that provides talent, skills, ideas where they are most needed, hence minimizing “over-education and mismatch”, to use McKinsey's jargon, and offering a lean-production of individuals according to the market needs.

In this sense, the Bologna process as a symbol of the international restructuring of education redefined the entire supply-chain of training and learning from atop, hence taylorizing teaching, pre-establishing objectives and goals, filtering international curricula. From primary school to tertiary education, curricula were re-defined from the top according to pre-defined teaching goals and desired learning outcomes. J. B. Foster (2011) has done a great work detailing the genealogy of the interest of financial capital in education and the relationships between finance, venture capital and the public school. Research practices have also undergone a profound transformation, ultimately based on the externalization of funding and on the transformation of access in a competitive process. Here again it is important to remember what was mentioned above: that the highest development of capital exists when the general conditions of the process of social production are not paid out of deductions of the social revenue, but rather out of capital as capital.

“This shows the degree to which capital has subjugated all the conditions of social production to itself on one side; and, on the other side, hence, the extent to which social reproductive wealth has been capitalized” (Marx, 1973:532).

Here, at all levels, assessment works as a filter. As Arrow argued: it is “a screening device, in that it sorts out individuals of differing abilities, thereby

conveying information to the purchasers of labor” (Arrow, 1973:194). McKinsey is very explicit about this, when it posits standardized testing, in particular Pisa testings, as a solution to global unemployment. In a word, tests measure, enumerate, classify, group and rank all of the world's individuals as fixed labor in order to provide the purchasers of labor with the necessary information about their skills and value. Once again, we are faced with the conflict between creative activity and abstract labor. In testings the subjectivity of labor is concealed, it is not creative activity but “labor pure and simple, abstract labor; absolutely indifferent to its particular specificity” (Marx, 1973:296-297). Here, capital as capital, as the centralized government of liquidity is also the certifier of truth, the subject of command that tells the best from the rest, the drowned from the saved, the sinners from the saints. In a sense, assessment is an interface: an interface between two worlds, the filter intended to measure, enumerate, classify, control validate or reject individuals and truth. Similarly, assessment acts as a knowledge filter. In the same way as all big historical transitions were based on “a foundation of skepticism and rejection” that amounted “to a re-examination and eventual rejection of deeply entrenched traditional concepts and beliefs” (Mokyr, 2003:36), here knowledge is evaluated, questioned, assessed, validated or dismissed. Hence, as the global reform in public education transforms knowledge in a private investment dependent on performance on pre-established goals, competition becomes the only condition for access. Here, compliance to the rules is measured in numerical terms, as benchmarking measures quantify the value of each structure and each individual, hence giving each competitor a rank in the hierarchy, a number that will represent its exchange value, its quality and its worth. Be it researchers who compete for grants, students who compete for loans, 17 thousand universities who compete for funding, the ultimate model is Hayek's notion of *catallaxy*: only when competition is the spontaneous order of society, can we finally achieve distributive justice.

8. On assessment. Merit as glory for self-exploitation

In “Postscript on the Society of Control” (1990), Deleuze uses the notion of “salary according to merit” to describe the shift from a disciplinary society to the society of control. Deleuze observes that while “the factory was a body that contained its internal forces at the level of equilibrium, the highest possible in terms of production, the lowest possible in terms of wages”, a society of control works more deeply to impose a modulation of each salary and presents the “brash rivalry” as an “excellent motivational force”. I paraphrase Deleuze to define assessment as the modulating principle that provides “credit according to merit”, where merit is the incarnation of the law of value and credit is a function of competition.

Based on an induction to rivalry represented spatially in the vertical form of rankings, the “apparent acquittal of the disciplinary societies” is here surpassed by an endless principle of competition that “opposes individuals against one another and runs through each, dividing each within” (Deleuze:1990). Here, the necessary but insufficient condition for entitlement to credit will be the commitment to produce more, in greater quantities, better, thus reaching the goals faster than all others.

Hence assessment:

“diminishes labour time in the necessary form so as to increase it in the superfluous form; hence posits the superfluous in growing measure as a condition – question of life or death – for the necessary. On the one side, then, it calls to life all the powers of science and of nature, as of social combination and of social intercourse, in order to make the creation of wealth independent (relatively) of the labour time employed on it. On the other side, it wants to use labour time as the measuring rod for the giant social forces thereby created, and to confine them within the limits required to maintain the already created value as value” (Marx, 1973:706).

We are right in the middle of the Fragment on the Machines. And it feels normal because that has become the dominant praxis. Merit disarticulates wages and sets goals on the basis of a regime of truth, hence promising to reward the deserving ones with glory. Yet, in the midst of unprecedented wealth, it constantly postpones the idea of reward as an option, as a fantasy, as a mere conceit. Ironically, we could say that “where wealth as such seems to appear in an entirely material, tangible form, its existence is only in my head, it is a pure fantasy. Midas” (Marx, 1973: 234).

Hence, as the crisis of the law of value unveils:

- The centrality of knowledge as power;
- Disposable time;
- An unprecedented production of wealth;

assessment serves multiple functions.

- It denies the marginal disutility of labor (Keynes), while it compels to produce more, in greater quantities and faster than anyone else.
- It transforms the law of value into an ontology, the only condition for reproduction, the measuring rod for existing wealth.
- It individualizes the responsibility of scarcity, hence transforming debt and poverty into lack of worth.
- It posits poverty as an effect of low productivity, thus normalizing the artificial production of scarcity through the privatization of wealth.

- It uses science in ways that are antithetical to labor, until data governance and debt governance have a life of their own.
- It posits the idea of reward as a capture to crowd-source the general intellect, hence trying to overcome its own limits by pushing them onto our bodies.
- It produces an artificial temporality. “In the global plant”, Marx used to say, “the magnitude of labor appears as an amount of space, but expressed in motion and measurable only in time” (Marx, 1973:321). Here there is no space and there is no time, time is collapsed in now-time. In fact, assessment produces a temporality of perpetual emergency, where “living by the dead-line” becomes our biological rhythm and the only eternity that's available is collapsed in the now. Hence, in the middle of an unprecedented wealth, life becomes a constant conflict between life and death, sink or swim, publish or perish, an unceasing blackmail where the now-time becomes the constant sinking, the collapse, the apocalypse of space and time.

“With subsumption realized, the dialectic completed, the capitalist and bourgeois now-time (Jetzt-Zeit) is the totality of the sense of death, of a practice of apocalypse. The abduction of time from being, its complete fixation and blockage, which is an expropriation of ontological meaning at the level of the collective that is imploded up to the point of the absolute potentiality of destruction. This occurs across the whole compass of the experience and praxis of the collective. A space that annuls time intoxicates us” (Negri, 2003:114).

- It camouflages the law of value. Even though it is no longer true that producing more, in greater quantities, in less time is a pre-condition for profit, cognitive capitalism artificially reproduces a context whereby the incarnation of the law of value is the only precondition for reproduction. Here it matters not whether credit is ever postponed, delayed or simply posited: in so doing capital denies the discontinuity between two different regimes of accumulation and its own suspension. In this context, the artificial production of deadlines and pre-established goals creates a double temporality. The first temporality is dominated by now-time and the apocalypse of the context: here wages are posited as a function of the law of value and suggest that producing more will bring about progress and prosperity, as in “the gold old days” of Fordism. In the second one, growing profit quotas are shifted to the financial markets to ensure profitable “growth without accumulation” (Marazzi, 2011:29). In the first temporality, assessment reassures that responsibility, devotion and fidelity to the institution will increase progress and prosperity, and if you work by the rules you will have your share, while in the second temporality, finance capital carries out direct investments not as much in new market outlets, “but inside them, namely” (Marazzi, 2011:29).

- It destroys knowledge. Sufficient literature already shows how the incarnation of the law of value, i.e. the constant pressure to produce more, in greater quantities and at a faster pace, is leading to erode knowledge, nor could it be otherwise. In fact, while capital tries to separate creative activity from innovation, the two of them are inseparable, in the same way as the devalorization of life inevitably undermines the very foundations of intellectual production. Ultimately, in intellectual production the law of value normalizes abstraction as the constitutive quality of knowledge, as its very quality will be its quantity and its use value will be its exchange-value. In this context, practices such as plagiarism, ghost-writing, the growing numbers of retractions as well as cases of scientific misconduct, should be interpreted as desperate attempts to keep up with a faster pace of intellectual production, hence privileging quantity over quality, speed over content, the exchange value of knowledge over its use-value, in a process that ironically erodes the very foundations of intellectual production, i.e. the very forces that capital used to recover its profitability outside the productive process.

9. Soul-Sourcing

Before we conclude, we should probably ask how that happens.

In other words, it doesn't really take Marx to figure out that competition drives wages to sink or that "in the same manner in which labor becomes more unsatisfactory, more repulsive, do competition increase and wages decrease".

Hence, the question is why rankings are not immediately identified with competition, self-exploitation, unpaid work and optionality of retribution. In fact, assessment seems to dwell in a double temporality and a double regime of truth.

In a certain sense, assessment acts like debt. It provides credit according to merit, where merit is a function of productivity and credit is a function of competition. "When it comes to talking about debt", writes Lazzarato, "the media, politicians, and economists have only one message to communicate: "You are at fault", "You are guilty" (Lazzarato, 2011:31). Yet, assessment conveys a different message. The discourse about assessment is framed around excellence. To excel, excellere means to be eminent, to rise high, in the medieval times it was the word used to indicate the sovereign, the highest in rank, God itself. *Glória in excelsis Deo* ("Glory to God in the highest") was sung for kings and emperors hence transforming excellence into prestige, wealth or plain money. In this sense excellence is the semblance of freedom that tries to seduce labor. In the same way as wages functioned as a "veil of mystery which enveloped work" (Negri, 1991:134), now excellence is the flashing light that blinds to the evil.

In this context, in the same way as debt:

“acts as a "capture," “predation," and "extraction" a machine on the whole of society, as an instrument for macroeconomic prescription and management, and as a mechanism for income redistribution” (Lazzarato, 2011:31).

so assessment seduces.

Here,

“Capital not only presents itself as measure and as system, it presents itself as progress. This definition is essential to its internal and external legitimation. [...] Progress is the eternal return lit-up by a flash of a now-time (Jetzt-Zeit). Administration is illuminated by charisma. The city of the devil is illuminated by grace” (Negri, 2003:108).

Here, the displacement of labor from the public discourse has soaked neutrality with exploitation. In a sense, herein lies the difficulty in defining merit, as merit is an oxymoron resting on a double regime of truth. On one hand there is capital, the subjectivity of command, “the strange God” who “perched himself on the altar cheek by jowl with the old Gods of Europe, and one fine day with a shove and a kick chucked them all of a heap. It proclaimed surplus-value making as the sole end and aim of humanity (Marx, 1992:916).

On the other hand there is labour, the very manufacturer of excellence whose self-exploitation capital rewards with glory. In this sense, the notion of merit seems to describe a new frontier of crowd-sourcing. Marazzi defined finance as a “crowd-sourcing” or a life-sourcing device. Here, assessment looks like a soul-sourcing device. In fact, capital posits knowledge as desire, as liberation. But in order to produce knowledge it is debt and unpaid labor that which it provides in return. As Maria Pascucci noted, when she commented on the results of a study among undergraduate students at Boston College, today “being a perfectionist is a glorified and socially acceptable form of self-abuse” (Beusman, 2013). But it is not about perfectionism, it is about excellence, competition and fear. Precarity, self-exploitation and competition push superfluous labor up to levels unseen. Interviews describe penniless graduate students who take on debt in order to outsource reproduction tasks and liberate time for competing more. If years ago outsourcing reproductive work was the privilege of a few wealthy households, now it is a privilege not to outsource reproduction because precarious labour must liberate more time for work in order to be worthy of credit. Here the list of tasks being outsourced is endless, it involves both plain material tasks and affective labour. Hence, as capital posits superfluous labour “in growing measure as a condition – question of life or death – for the necessary” (Marx, 1973:706), superfluous labour is just never enough. Drawing on Silvia Federici's work, we could say that capital has enlarged the sphere of reproduction and unpaid labor unlimitedly, to such a

point that unpaid labor is now marked with hyper-productivity while reproduction depends on a loan.

Here, as Fumagalli and Lucarelli put it, there is just one question.

“It becomes legitimate to ask: up to what point can this constant exploitation of qualified knowledge that have consolidated thanks to specific institutional factors (the democratization of learning) last? Or, under what conditions can knowledge continue to represent a fundamental valorization element in contemporary capitalism?” (Fumagalli A., Lucarelli S., 2011:91).

In this context, the recent increase of “I quit academia” confessions as a growing sub-genre of american essays, unveils a limit: a short-circuit between the body and the discourse, where the body becomes a source of truth that posits as a barrier to capital.

As Foucault said:

“There must be an uprooting that interrupts the unfolding of history, and its long series of reasons why, for a man 'really' to prefer the risk of death over the certainty of having to obey” (M. Foucault, quoted in J. Afary and K. B. Anderson, 2005:263).

That uprooting is the event, it is the point of rupture where the body breaks through the dominant discourse and becomes a barrier to capital in an inversion.

10. Conclusion

The notion of assessment is intertwined with multiple contradictions.

An interface between industrial and cognitive capitalism, assessment is the filter intended to negate and conceal the crisis of the law of value. In this sense, it transforms disposable time into superfluous labour and creative knowledge into abstract work. Moreover, it anticipates the slow transformation of necessary labour into debt. Here, capital pushes its limits onto the body, thus creating a new generation of overworked, in-debt unpaid cognitive workers without whom it cannot survive. In so doing, it slowly erodes the very foundations of intellectual production, i.e. its own very life sources. In this context, the de-valorization of life and the erosion of knowledge seem but two faces of the same coin, a symbol of the desperate attempt to sacrifice progress in the name of control. Yet, as capital transforms

the law of value into an ontology as the only strategy for reproduction, the disproportion between visions and values, the disproportion between command and desire undermine that very attempt at its core.

NOTES

¹ “Si le manoeuvrier libre prend un instant de repos, l’économie sordide qui le suit des yeux avec inquiétude, prétend qu’il la vole.” [If the free labourer allows himself an instant of rest, the base and petty management, which follows him with wary eyes, claims he is stealing from it.] N. Linguet, “Théorie des Lois Civiles. &c.” London, 1767, t. II., p. 466. Quoted in Marx, Capital Vol 1.

² Ultimately, this hypothesis stands at the core of the theoretical framework of cognitive capitalism, see: C. Vercellone, *The new articulation of wages, rent and profit in cognitive capitalism*, Université Paris1 Panthéon-Sorbonne, 2008.

³ Gramsci quotes Marx: “In Capital, Vol. III, Marx argues that the long-run tendency of capitalist accumulation is to raise the organic composition of capital to such an extent that the rate of profit will fall even if the rate of exploitation is rising”.

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