
The Monetary Valuation of the Human Mind: the conditions for knowledge transfer and education in a neo-liberal society

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ABSTRACT The Marxist category ‘alienation’ – the author maintains – contains already all the dimensions necessary to identify and interpret the educational problems of a neo-liberal society going through the process of economic globalisation, without reducing these problems to pure economism. It not only aids in understanding the fragmentation of identity itself, but even the fact that the maturation of the education of human nature forms an indispensable aspect of this fragmentation. Ways of developing an educational system that does not restrict itself to a treatment of human resources centred only on their market-oriented exploitation will be discussed. In contrast to the centrifugal forces of neo-liberal modernisation, the project of ‘human incarnation’ must be created.

With philosophical access, Karl Marx, in the middle of the nineteenth century, moved a phenomenon of modern society into a research perspective that he characterises with recourse to the concept of alienation that was developed in the traditions of middle-class enlightenment. Below, in this strictly philosophically determined, conceptual version, this category can serve as a key to derive the implications and consequences of present strategies of knowledge transfer and learning and the new idea of man that is recognisable in them. In the Marxist category of alienation, all dimensions that the basic educational problems of a neo-liberal society in the process of economical globalisation make definable and interpretable, without reducing them to sheer economisation, are preserved to the core. Not only does the fragmentation of identity, in terms of the category of alienation, caused by the modernisation and globalisation process become deducible, but the reification of the education process of essential human powers can also be recognized as a necessary moment in the fragmentation of identity itself.

Alienation – Reification – Fragmentation: the obstruction of essential human powers

Alienation in the tradition of Marx’s theories represents a category in which philosophical, subject theoretical and critical political-economic ideas flow together: any partiality in one or the other dimension would therefore lead to a loss of the power to explain and to a flattening out of this concept. The alienation theory is firstly an answer to the contemporary national economic relationships in which Marx registers the tendency to reify social relationships at the expense of living human opposite forms. This process of alienating is a process that arises from the legality of the context of social production and reproduction; it lays itself like a secret net over interpersonal relationships and settles down in people’s inner lives. Applied to the concrete structure of social production, alienation does not only cause estrangement in people towards the realisation of the execution of their work and towards the objects that they produce here, but also estrangement towards other people and towards their own nature, as well as their own mental capabilities. In general, people are ‘alienated from their essential nature’ (Marx, 1981, p. 518).

In the process of alienation not only structural estrangement is generated towards occupations and the objects produced: 'The worker's alienation in his product does not only mean that his work becomes an object, or an external existence, but also that it exists outside of him, independently, apart from him and becomes an independent power against him; that the life that he gave to the object works against him in an adverse and foreign manner' (Marx, 1981, p. 512). In the same process people's entire essential nature is seized by alienation and adjusted according to measures that are not within their power; even people's awareness of their nature becomes invalid and is reduced to a means of survival. Statements central to subject and education theories refer to the consequences of alienation, which effectively block the further development of essential human powers (Marx, 1981, p. 542). When transferring human expression into alienation, objectification into reification, realisation into loss of realisation (Marcuse, 1978, p. 23), alienation turns 'the essential nature of people as well as nature into their own intellectual capabilities, into a being that is foreign to them, into the means of their individual existence. It alienates people from their own body, as well as their external nature, their intellectual existence, their human essence' (Marx, 1981, p. 517) The free development of essential human powers is interrupted, the potential for human subject capacity is encapsulated in the logic of alienation, and people's essential nature continues to remain sealed off. We are alienated to the depths of our personality, we are alienated 'into the materiality' of our subjective being (Rossanda, 1994, p. 25), placed on the side, deformed, and dispossessed of any potentialities that human nature constitutes.

Alienation is, of course, not an anthropological fact; the process of alienation is much more structurally linked to the creation of an economic form that has to move man's utilisability into the spotlight, because only this way gains that represent the highest maxims of social production are feasible. If alienation is present to a certain extent even before the establishment of middle-class society, as people can only partially control their way of existence in pre-industrial social formations, in developed capitalism this loss of control becomes dramatic (Mandel, 1984, p. 203). This form of economy is only possible in social conditions in which capital penetrates the society's production sphere as money that strives to be multiplied, which, in turn, requires those who produce to be separated from the resources of their production and can privately acquire the properties of the means of production of socially produced wealth. However, those who produce this wealth must sell their workforce as commodities in order to ensure their existence (Mandel, 1980, pp. 56ff.; Haug, 2002, p. 235).

The structure and reproduction of human subject capacity are ultimately arranged, however subtly, under the direction of the permanent updating of the human commodity 'workforce'. The owners of means of production, for their part, are under objective pressure 'to maximize profit and growth regardless of the results of this quest for economy as a whole' (Mandel, 1980, p. 58), owing to the differentiation of the available power over the means of production and workforce caused by private property, for, in order to retain or expand the market share, the production costs must be minimised, a demand that can result through serial production and mechanisation. If, in capitalism, there is a powerful potential to 'develop technical progress, for a consistent use of scientific perceptions in material production, for a seamless expansion of goods and machinery including ... half automation' (Mandel, 1980, p. 58), then the constant mechanisation of production, its maintenance and providing it with energy produce a contradiction that Marx expressed in the law of the profit rate that tends to decline (Marx, 1984, pp. 25, 221-277). Because only a living workforce, from which a gain can be acquired, is in a position to produce more profit, yet this living workforce is disappearing more and more in relation to the factually objective production elements used by a proprietor, the overall profit rate is forced to constantly decline. The objective regularities that capitalist production requires drive society's reification tendencies forward and intensifies alienation in all dimensions of human existence through its fixation on the tangibility of human-world relationships. Essential human powers reduced in their creative potentiality according to measures of economic directives can only singularly penetrate the sheath of tangibility of social relationships. The freedom propagated by the middle class manifests itself as the freedom to implement self-alienation as a means to the purpose of ensuring existence in competition on the job market. Concrete forms and the intensity of the reification depend on the particular method of production and reproduction of human living conditions in modern, middle-class society: on the level of the transition to 'transnational production methods' (Haug, 1999, p. 32) that are made

possible by high technological productive powers and, in their context, the world market is created for the first time in history, the social demands of subject layout and, as a result, also the forms of alienation in human–world relationships and in human communication. Hereby the directives and planned processing of essential human powers also change.

**Homo Materia: human resources as a source
of resources in highly technologicalised capitalism**

Under these objective regularities, which we cannot pursue any further here, the question of education is subsumed. In the maxims of people's usability and in constantly conflictive attempts to transform them into work processes, the alienation, in which education constitutively enters, is structurally planned. We will now turn to its present form of expression, for the philosophical regulation of alienation under the conditions of neo-liberal globalisation require it to be presented in a subject and education theoretical perspective. The idea that education could be free from the restrictions of alienation is an illusion of idealistic theories that place education in a settled realm of beauty beyond real relationships. For, in order to transform human nature into a specific work capacity, 'it requires a specific education or upbringing, which, on their part, costs a greater or lesser amount of commodity equivalents' (Marx, 1983, p. 186) In a society that is globalising, information and communication technologically moulded in the economic area, a society in which the tendencies to mechanise and automise systematically thin out the opportunity for gainful employment, the social pressure on an education that is supposed to produce the desired subject capacity in a more efficient measure and in faster cycles grows. The indices of this pressure are oppressing: The endeavours for elite support, support for the highly talented, educational standardisation at kindergarten, reduction of school hours, compromising the time to mediate education, and, last but not least, the attempts to privatise education by creating an education market for education corporations (General Agreement on Trade in Services) speak clearly. In the vision of carrying out an international education market the aspect of the usability of education would associate itself with that of its purchasability.

In the following there is an attempt, on the one hand, to regulate the idea of man that is being expressed in present education/political discussions about the usability of knowledge and competencies. The concept developed by Günther Anders of *homo materia* (1987, pp. 21ff.) may be used here as a transparent screen to characterise this hidden anthropology. If Anders' formulation refers to the feasible human possibility to universally become a resource, then we particularly observe, in the context of our question, the *processing of human resources* with regard to the uncovering of mentally creative competencies. On the other hand, the human techniques (Brückner, 1978, pp. 187ff.) should be identified by which, in continuation with the alienation, a commodity type of education should provide human nature with any knowledge assets and competencies that it requires as a utilisable commodity workforce. Along with the philosophical/anthropological tendency of human existence to self-evaluate its own existence and, thus, its nihilistic interpretation, it concerns the closer regulation of the human techniques 'with which society makes people, who are capable of working, out of new borns' (Brückner, 1978, p. 181).

The present human techniques that are perspectively aimed at processing human resources are centred on new forms of generating and transforming identity configurations in which knowledge acquisition, processing and transferring are given central importance as a subject quality. The mobile, flexible, fluid personality that is capable of changing and is calibrated on permanent self-transformation characterises the psychological correlative of *homo materia*. The present social tendency, whose symptomatic expression can be found in discussions about the politics of education, holds the danger of a modularisation of people that conforms to the market. Modularisation characterises the basic tendency of the image of man, which assumes humans to be a separable being that is arbitrary in varying modules which are right for the market. Therefore, people in the future should no longer merely take over social roles and act according to their demands; a more giving, mouldable identity should allow them to cope with the constantly changing demands in a globalised, information and communication technology based job and consumer market. In this case, familiarity replaces confrontation, as it concerns a hands-on

familiarity with social pressures, not intellectual discussions about the world: it concerns the subject's most optimal *self-assertion* possible, not the resistance that could oppose social impertinence. The image of the modulisable person contains the imperative to adapt one's own personality elastically to the market demands; it aims for the *market capability* of human inner life. A chameleon-like identity, a type of mobile nomadic identity should correspond to society's demand structure. The overall concept that the sociologist Richard Sennet analyses in 'Corrosion of character' of the people who stick to the spatial, time and 'unsocial' implications of the economic systems with extreme flexibility (Sennet, 2000) correspond to the demands of a globalised economy whose basic condition is the ubiquitous applicableness of homo materia.

To the extent of how social production relies on cerebral/mental abilities and allows these to become crucial productive powers, to that extent education is even more strongly included in the process of reification. In the present form of the economic system, knowledge and competencies become fundamental elements for creating added value and, therefore, they become resources of economic yield. Thus, in the scope of an accumulation model that is strongly based on the mentally rational subject capability of man, education is systematically degraded to a commodity in whose presentation and pre-processing all the controversial, emancipatory elements are supposed to be frozen in the middle-class ideal of education. The terms 'knowledge society', 'information society', 'media society' only conceal the contradictory processes by which a reorganisation of social productive power usage and the creation of added value results in a qualitatively new level of the existing economic system. The French social scientist Moulrier-Boutang, who characterises this process of the reorganisation as a change from industrial to cognitive capitalism, works out the different structural elements of this change: In an economic system, whose accumulation is essentially based on knowledge, the significance of research, education, the flow of information, communication systems, organised learning and strategic management grows steadily. The value of education, which, at the same time, has to remain a form of education that is reduced to a type of commodity, moves into a society that structures production through the creation, formation and handling of information and communication technology applied systems; it increases as much as the human workforce must be prepared for the demands of the production of knowledge and information (Moulrier-Boutang, 2001, pp. 31ff.) This increase in the importance of mental abilities implies the tendency to build up a type of private property of means of processing the raw materials for human resources: The control over the development of human knowledge, competencies, creativity and imagination must extend to the private area of use if one's own position in the international competition is to be built upon, stabilised and broadened: 'The main concern is primarily that of administrating technical knowledge, ensuring the development of learning processes, creating new knowledge and ensuring oneself the access to all available knowledge' (Moulrier-Boutang, 2001, p. 31).

In the main education documents of matters of education policy the thought of the utilisability of knowledge and competencies of the fundamental linchpin of education reform innovations of scholastic learning and educational processes, by which the mere change in accent from the term of education to the category of learning under perspectives that are crucial for ideology, is insightful. In a social historical situation in which economic progress is more and more based on knowledge, the passing down of knowledge and mental/cerebral performance, the so-called human resources become a hard-fought 'key to the future' (Lehner & Widmaier, 1992, p. 96); they are even more strongly conceived as a fundamental 'location factor' in the international competitive battle (Bildungskommission NRW, 1995, p. 43). The business report in the federal government, a coalition of the Green and the Social Democratic Party, sees 'Germany's most important resource' (Bundesregierung, 2000, p. 34) to be in the creativity and competence of its people, for the 'innovations of tomorrow begin today in the heads of young people' (Schröder, 2000, p. 49). The terms 'resource' and 'raw material' reveal the anthropology of homo materia, which leads the innovative approaches and both expresses and, once again in academic language, duplicates alienation in terms of reification. Resources are plundered, worked on and brought into a socially profitable form. When children are experienced people it is the source from which the utilisable innovations should come after their scholastic reprocessing into human capital: a process in whose context the commodity type of education of the human ability of children is constituted through the contradictory nature of social relationships. What is new about this education economy is, of

course, that it uses alienation in a different way to previous variants. The social-political intention of making children 'fit', as it is popularly called, for life in a society on the way to economic globalisation through a reorganisation of scholastic learning processes, leading children to a future work market in a better and, at the same time, faster, more effective way and in a shorter, quasi high selective processing period, has always been the aim of a learning economy; however, a new mark of quality is suitable for the present education economy as far as the fact that, in contrast to previous commissioning of scholastic learning, here the physiological, biographical, emotional and creative moments of learning are made useful for this goal and are placed under a progressive design. In the context of a new, structurally extended concept of quality, not only individual segments of personality become the object of thoughts, but rather, the all-sidedness of essential human powers in their alienated form: The new concept of qualification includes the versatility of human capabilities without unhinging them from the coordinate system of alienation. It does not only take into account the cognitive abilities, although one can only make direct opportunities for usability available through them, but also the corporal, aesthetic, affective and socio-emotional opportunities on which these are based and which are in constant correspondence with them.

In the quantification, compression and condensation of the time for education there is an essential moment of present human techniques to transform human resources into useful qualifications which, again, increases reification in the human-world relationships. For the increase in efficiency in knowledge and competence, production requires ignoring all the moments which are the unavoidable conditions for a successful education process: leisure, time, dedication, composure and love, fundamental elements that enable humans, even in alienated conditions, to cross the limits of reification time and again. Led by a 'technologically reified concept of time' (Kofler, 1982, p. 40), education is also subjected to time economic maxims that arise from the accelerated production processes. Education is reduced to acquisition which must remain external to the human-world relationship, an object of the educational process; it is reduced to the acquisition of a world that is now only presented as a collection of modules without context. In a look at learning processes that refers to utilisation, the fundamental requirements of human education, with regard to its time dimensions, remain unconsidered. When undertaking the task of transferring the time economic principles of social production seamlessly to the production of qualifications and competencies, unfulfilled personhood, whose effects for the civil foundations of human coexistence are incalculable, is produced en masse.

The categories of *cultural* and *social capital* which are developed in different contexts (Bourdieu & Passeron, 1973; Coleman et al, 1982) include for socio-education the reification of essential human powers, the encapsulation of the diverse dimensions of human subjectivity in the context of the existing production and reproduction context of the political economy. The efforts of the state, economy and consolidated companies are aimed at the production and utilisation of this cultural and social capital. The theoretical framework concept of the PISA (Programme for International Student Assessment) study is based on an extended concept of qualification that, while retaining a level of analysis that is fixated on a formal education certificate and cognitively restricted, perpetuates a reified education economy when extending its access to *basic competencies*, which systematically excludes the implicational concepts of alienation. This change is shown in the Organisation for Economic Cooperation and Development's (OECD) views of investments in so-called human capital:

In the best case, assessments of the qualification basis of human capital stock tend to be gained from 'representative indicators' like 'high school graduation'. As soon as the interest in human capital is extended to qualities that allow people to become 'lifelong learners', the inadequacy becomes obvious. Through the direct questioning of knowledge and skills, OECD/PISA revises the degree of abilities of young people to face up to adult life and, on the other hand, (to a certain degree) the effectiveness of education systems. (OECD, as cited by Klausenitzer, 2002, p. 48)

**Alienation in the Education Process and Supplementary Alienation:
the integration of pedagogical action in the process of utilisation**

At this point we must introduce an education theoretical, necessary differentiation, namely, the distinction between pedagogically based *necessary alienation*, which all human education processes have in common, and *supplementary, therefore artificial additional alienation*, which does not represent a socio-anthropological fact; rather, it forms the historical product of a specific organisation of social work and living conditions. We may understand this differentiation as the distinction between *indispensable alienation that is based on the human education process itself and socially produced reification*. Any serious education process includes alienation, because any closer look at the educational content requires a certain degree of depersonalisation in the replacement of subjective interests and wishes and an irritation towards previous personal experiences. The alienation, made possible through mediated rationality, towards the immediate environment itself is the condition for the abolishment of immediacy and, therefore, the restoration of human capacity for action. The dedication to an object or circumstance puts a process of essential alienation in motion, which, to be sure, is only temporary and has nothing in common with the elementary alienation in man's relationship with his personal and social world. Alienation is the condition of education; according to Hegel it only requires 'the slight pain and effort of the notion of occupying oneself with something non-immediate, something unfamiliar, and something that belongs to remembrance, memory and thinking' (Hegel, 1996, p. 321). The fact that people do not get lost in this alienation means that they do not dissolve their identity in what is unfamiliar, in what they closely observe; rather, they gain a qualitatively new relationship with their world, thus cancelling out the temporary alienation as soon as they withdraw from the learning preoccupation with an object. Abstraction abilities, the mental control over one's own living conditions and critical power of judgement represent the personality dimensions that should be addressed in this education process.

With supplementary alienation, on the other hand, which can only be separated from education theoretical or pedagogically necessary alienation for analytical purposes, things are different. Supplementary alienation is the basic form of alienation in the learning process that reifies the relationship humans have with the world, a process that arises from the generalised commodity structure. According to Georg Lukács, the essence of the commodity structure is based on the factor 'that a relationship, a relationship between people, contains the character of tangibility and, in the same way, a "ghostly objectivity" that conceals any trace of its basic essence of human relationships in its strict, apparently completely closed and rational entelechy' (1986, p. 170). The reification of these human relationships with their world and with themselves, the alienation from their own mental abilities and, thus, from their species-being, can be found on all levels of scholastic transformation of raw materials. The pedagogically required alienation, which intellectual distance to the object of the process of education can produce, is superimposed by enclosing the reifying tendencies that arise from the social production and work organisation; the possible self-objectification of humans as a condition of its capacity for action is turned into *self-instrumentalisation*. The social relationships between people in the context of the scholastic education process do not only contain the tangibility character through the entrance of the rivalry and competition principles into those who are teaching and learning; in the educational content presented and, moreover, especially in the form, in the medium of its presentation, the reification of essential human powers also penetrates in so far as the humanitarian development context of educational content and its methodic conveyance no longer steps in the way of the horizon of scholastic learning, and compacted human action can no longer find a way into the conscience horizon as the causative element. However, the structure of an education process, which should enable deep awareness that could abolish this, while doing so through alienation, cannot be developed on prefabricated materials that contain prejudices towards education, for these materials stabilise and deepen supplementary alienation on a high level.

In the context of the alienation that is expressed in the education process and the supplementary alienation that similarly produces an education process, two levels may be distinguished that are, in different ways, related to the utilisability of human resources. These levels, reflected in the education theoretical distinction between material and formal education, affect the possibilities for utilisation that are dissectible between both maxims through content orientation and subject

orientation, or different combinations of these dimensions. To be sure, supplementary alienation is also present in material education to the extent that in the acquisition and appropriation of educational content the reflexive liquefaction of its concrete development history is abandoned. However, on that level of formal education there is powerful potential for alienation, because when concentrating on dissecting the subject's creative abilities the appearance of the further development of essential human powers is produced in light of their growing deformation. Progressive didactics, economic circles and education corporations converge in these efforts when they concentrate their efforts on ways to produce qualifications and competencies. This represents the most important pedagogical human technique in the processing of human resources. Method fetishism and fixation on the media may well represent an alleged pedagogical creativity; however, even these methods remain extremely unpedagogical, yet strengthen the cut and dried perceived and experienced forms that should be forced open. Educational content that could develop views of young people towards the world and their own personality thus becomes a commodity form of learning material that promotes the schematic education process and therefore increases alienation. Such a reification of education through 'commercially pre-produced curriculum packets', which serve the purpose of facilitating the acquisition of non-facilitative questions and problems, move one's attention to the social historical genesis of awareness and knowledge (Tillmann, 1989, p. 175) and cut off the acquisition from the process and experience.

The didactics of past centuries with their principles of 'Lebenswelt' Orientation (exclusive orientation on the direct living space), subject orientation, action orientation and experience orientation perpetuate supplementary alienation on the basis of a naively conceived philanthropism, particularly through the illusion that the acquisition of humans and their world can be fulfilled by means of minimal, cognitive efforts indifferent to the content. Consumerism in education is not only an accompaniment of socialisation in the social glitter world of culture industry and commodity aesthetics: it is also the result of a teaching-learning process that should replace qualitative demanding attitudes by playful acquisition, by the unbearable ease of learning. The view that, in the education process, one objective could be to confront adolescents with the serious task of 'subordinating subjectivity to an objective circumstance' (Heydorn, 1994, p. 131) reproduces a position that has been marginal for a long time. The above-mentioned methodic principles imply a self-experience that is not constituted by mental work, by the efforts of aesthetic and conceptual awareness, which much more aim to immediately liberate the regaining of human subjectivity without any detour. It is this learning concept that undermines the pedagogical legitimate alienation, yet, at the same time, increases supplementary alienation. As an alternative to the possibility of clarifying one's own world and self-relationship through deep acquisition of educational concepts, this learning concept is based on the conformist performance that it systematically mistakes for competence, whereby the supplementary alienation is stabilised on a high level and broadened.

Utilisability as a Criterion? On Internal Irrationality and on the Critique of a Principle of Human Socialisation, Upbringing and Education

Utilisability, if we do not naively etymologically interpret the term, but rather concentrate on its real historical significance, is surely no criterion for the evaluation of the quality of education. In the concept of utilisability the context use of knowledge and competencies is defined by measuring economic design directives that structure contexts of human experience and 'Lebenswelt' particularistically, filtered by the particular interest. The usefulness of acquired knowledge reserves and competencies is not simply due to the pressure of emancipative overcoming of problems of contradictory living conditions; rather, it is defined by the requirements of a changing economic system of private acquisition of socially produced wealth. Indeed, we do not learn for school, we learn for life. Precisely here is the scandal of middle-class, modern societies: in life preparation, from which life is drawn, as it obeys abstract legality which constantly reproduces reification. Therefore utilisability is not an individual mark of quality of education; rather, it represents a demand whose perception and overcoming belong to the most important objects of a critical education theory. Utilisability is a completely useless criterion for the evaluation of scholastically conveyed knowledge and competence, as its measure is located externally to humans, because it is

simply not legitimisable in an educational aspect. Statements about quality of cultural and social capital, to which instrumental abilities, culture techniques and basic competencies belong, and examining its 'convertibility' into economic capital (Baumert & Schümer, 2001, p. 326) cannot create a measure of education; at the most it can deliver empirical data for pedagogical evaluation. This is necessarily included in a scientifically reduced analysis that only affects one segment of human subject development.

The only fundamental form of 'recognition' in our educational institutions is, contrary to the humanistic efforts of many male and female teachers, the performance principle which, in the reified way of the grading system, is believed to be able to evaluate the subject capacity that is reduced to human utilisability. At the same time the attempts at time economic planning of education are the result of the illusion of being able to determine the utilisability of the commodity of education. However, the fact that precisely the degradation of education to an efficient and therefore quantitatively determinable size that could uncover humans' innovative, creative development potential – a notion that is expressed in the ventures of education corporations, to be able to guarantee a cheaper and more efficient process of human resources by means of privatised education production – is doubtful even within the logic of prevailing political economy as education economy, yet it belongs to the pedagogical commonplace, that qualitative human education is not possible without space and time open formation, whereby the talents of all members of society are systematically wasted. Neither the relationship between social and cultural capital within the logic of an economisation and quantification of education nor the effects of a form of human relationships that erode social capital are regarded, nor do the consequent problems step into the horizon of reflection, that the 'unfulfilled time of the alienated conscience' (Kofler, 1982, p. 41) has for the motivation and creative potential of humans whose activation should actually be the condition for economic success. The 'cost' of the utilisation of human resources in the process of education and upbringing for self and world understanding of adolescents and therefore for the basis of a civil society plays, of course, no role in the investment philosophy of economic circles and education corporations.

If we leave this logic and place genuine pedagogical education theoretical measures in more recent views of education economy, the attempt at expelling utilisability from knowledge and competence appears in its sheer irrationality. The symptoms of alienation and reification are particularly perceived in the context of pedagogical and socio-pedagogical problem constellations as scandals in the political and public sector; their social history of creation in the socialisation context of children is, in contrast, systematically excluded. The actual fundamental social scandal, that of hindered or only partially possible human subjectivity in an economically rich social formation whose global players have meanwhile entered the battle for patenting the diversity of organic life, disappears in the politicians' gestures of shock. The fact that the encapsulation of essential human powers questions the civilising foundations of society in the long term is evident. The socio-pathologies that arise from their reified form mirror the irrational society that forces people into a 'state of autonomous alienation' (Hardt & Negri, 2002, p. 38). The constant debasement of humans through degradation of their subject power to a commodity to be produced and utilised in a short time span – a commodity that can be disposed of after use – cannot remain without consequence for the physical structure; the proof of their external explosion is overwhelming (cf. Eisenberg & Gronemeyer, 1993).

To a certain extent, the principle of the utilisability of human resources is not only a foundation for the creation and dispersion of social pathologies in general social socialisation processes; the process of education itself contains and transports mechanisms that threaten to divide human identity and, owing to economically restricted education processes, which grant neither room nor time to work on problems in relation to humans and their world, displace unmanaged demands and conflicts to humans' inner life where they accumulate and can aggressively unload externally again.

An irrational system cannot, however, be rationally conveyed, not even in the abbreviated form of rationalization, the ratio that has been reduced to the pure applicable character. The social contradiction is truly experienced by people ... The incommensurability of the system is becoming more and more visible, the material contradiction is translated to psychological

contradictions that are undetainably and suicidally produced by the development of productive powers in a way that has been unknown up until now. (Heydorn, 1995, p. 122)

A fundamental segment of identity configurations that arise in an almost natural way in the process of social modernisation represents the personality that is fixated on workforce qualifications; the personality that is not created automatically by the socialisation content of present production and work forms and market relations alone; rather, it refers to specific human techniques that imply intentional education processes in educational institutions especially created for it. The contradictoriness of social human techniques, of which education represents an essential part, becomes especially clear in the pressures of the planned processing of human resources into human workforce, because, at the same time, elements of its potential self-enlightenment are transported by the act of alienation that is required for the purpose of its generation. The perspective of self-responsibility forces its way into the identity configurations of modern people with the internalising identification of particular interests as well as of one's self, namely the subject, as a contradictory identification that perpetuates alienation as soon as the subject denies its contradictoriness. Whatever different phases and structures of accumulation pass through the capitalist economic model, in whatever hegemonic education conditions its demands are articulated and negotiated, in whatever concrete living conditions and socialisation contexts its effects express, it is always with the pressure to satisfy the needs of social production, also called 'the dull pressure towards self-responsibility' (Koneffke, 1997, p. 49) whose subject form, the freely and rationally acting subject in opposite conditions, appears as a partially self-responsible subject.

The poles of social utilisability and human liberation towards self-determined action, which requires the conscious abolition of alienation, constitute education's contradictory task. The dialectics of social human techniques should be developed from this contradictoriness of orientations in the direction of their human rationality. Through the pressure of utilisability, using it, yet not affirming it, education seeks possibilities for successful human subjectivity in conditions that undermine them. Adolescents being able to make their problems in their relationship with the world and with themselves a central theme, being able share their difficulties in personal recognition conditions, being able to articulate the other, or the subject power that is not included in the commodity 'identity': these perspectives would be the minimum demands of an organisation of scholastic education and socialisation that does not functionally limit its task to the utilisation-orientated processing of human resources. The structural moments of openness, trust and encouragement that exist in the pedagogical relationship, and constitute entelechy, would clash with such an educational institution: as when people 'are consulted even for foreign purposes, they are, in the environment of their education, also a purpose in themselves' (Gamm, 1991, p. 194). To be sure, this is only a spark of hope which may not override the power of destruction of human essential powers encapsulated in reification without the power of a social movement that could, perhaps, oppose the project of becoming human to the centrifugal power of neo-liberal modernisation. The 'destiny' of essential human powers in a globalised world has not yet been decided.

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