



Control and becoming in the neoliberal teaching machine

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review of

Michael Peters and Ergin Bulut (2011) *Cognitive capitalism, education, and digital labor*. New York: Peter Lang Publishing. (PB, pp. 341, £28.00, ISBN 9781433109812).

In the first part of a scathing series of posts for the New Left Project focused on the ‘Big Society’ sham, Emma Dowling writes:

This kind of “philanthro-capitalism” is seen as progressive in its supposed ability to produce a more ethical form of capitalism, because the commodities produced have some kind of “social value”. This trend is much more aptly captured by a different term: the Social Factory. The image of a “social factory” can conjure up a sense of a society made up of one long assembly line, where factory workers are involved in mass-producing the immaterial commodities of sociality, in the same way they would produce washing machines or packets of peas. Perhaps some of the ways in which investors vie for the opportunity to make money out of our sociality may have that quality to them. Yet, the Social Factory is not about promoting an image of society as resembling the factory. To clarify the political problem, it helps to draw an analogy with the Feminist analysis of social reproduction. Social reproduction encompasses the biological reproduction of human beings, it also includes the sexual and emotional labour required for the maintenance of relationships, and it involves the unpaid care and voluntary work undertaken in communities – short, the work that goes in to reproducing labour power and life. Feminists have been especially astute in demonstrating how the unpaid reproductive work in the home and in the community is vital in sustaining the capacities for surplus value production in paid forms of labour. (Dowling, 2012)

If the social factory is an image – understood here as a fraction of both a thing and its representation—its sensory motor circuit has intensified specific material tendencies active across far-flung assemblages of capital, affect, machines, (gendered, raced) populations, work, and values. The social factory, however, is a poor metaphor for societies of neoliberal control: a sieve with a variable mesh is better (Deleuze, 1996), but only as far as metaphors go. The ontological or affective turn in Western theory and practice, aside from nurturing a healthy skepticism for all metaphors, pushes radical materialist praxis to confront and provoke the contemporary crisis of capital itself.

The collection of essays gathered together in *Cognitive Capitalism, Education and Digital Labor* develops several of these new materialist directions with urgency and insight, at times tapping into, or better conjuring a kind of proleptic Marxist Zeitgeist: the potential and limits of the autonomy of living labour. Organised around both the ‘Theoretical Foundations and Debates’ (1-122) of the cognitive capitalism thesis, and its implications for ‘Education and Labor’ (123-287) today, the collection has stand-out essays by Antonio Negri, George Caffentzis, Sylvia Federici, Christian Fuchs, Ergin Bulut, Emma Dowling, Alex Means, Alberto Toscano, and Tahir Woods. Written for a general audience interested in the relationship between educational institutions, accumulation, activism, work, and the digital broadly construed, these essays explore the various dimensions of the crisis of capital and subjectivity today. Here, I review some of the major themes running throughout the essays.

As Alex Means argues in his excellent contribution to the volume, the current crisis is rooted in the transition from the industrial-Fordist model of national production in the 1970s to post-Fordist globalization in the 1980s and 1990s. Consequently, the reach and organizational power of the market has extended into ever more domains of life leading to a broad expansion of global corporate profit making. This radical expansion of privatization is broadly what is referred to, following Marx, as the real subsumption of living labor into capitalist production. Driven by a wave of privatization, wage repression (outsourcing, automation, free trade/labor zones, precarization, etc.), informational and communicative processes, and speculative innovations and semiotic manipulations in the financial markets, capitalist accumulation has deepened inequality and insecurity. ‘Millions have lost their homes and livelihoods. Unprecedented wealth has been upwardly redistributed as publics have been left holding the bag—systemic risk, debilitating debt, and historic social disinvestments. While architects and cheerleaders of neoliberal globalization claimed that unbridled information-driven capital would usher in a new era of “friction-free” exchange in a “flatter” world, everywhere we turn we seem to be confronted with new walls, hierarchies, and points of conflict’ (213).

As points of conflict proliferate throughout global capital, how is cognitive labor structured in and through this deepening of inequality and insecurity? Again, it was Marx in his *Fragment on Machines* who saw a body-becoming-machine and its implication for capitalist accumulation. It was the biopolitical turn that emerged from the set of researches Foucault pursued toward the end of the seventies, and its postcolonial/Italian autonomist conjunctions that opened political practice to a new analysis of heterogeneous and transnational assemblages of power. Cote and Pybus offer a succinct genealogy in their excellent contribution to the volume:

Lazzarato leaned conceptually on Foucault, precisely because of the urgent need to propose a different kind of political economy, which is neither the political economy of capital and work, nor the Marxist economic critique of “living labour”, hence the more heterogeneous economy of forces. Therein are contestations between coordination and command, between the exploitation of “surplus power” and formations of radically new collective possibilities, the likes of which were envisaged as far back as Marx in his visionary *Fragment on Machines*. (177)

It is the feedback loop between laboring body and machine that forms some of the crucial backdrop for the thoughtful and provocative insights in this volume. Alex Means usefully elaborates on this in his contribution. In the *Fragment*, writes Means,

Marx speculates that technological developments contain the potential to pass a threshold whereby collective intellectual and communicative processes – the “general intellect” – overtake industrial labor as the primary driver of production and surplus value. As he puts it, this occurs when “general social knowledge has become a direct force of production” and the “conditions of the process of social life itself have come under the control of the general intellect and have been transformed in accordance with it”. Carlo Vercellone has... argued that the “hypothesis” of cognitive capitalism “cannot be reduced to the mere constitution of an economy founded on knowledge.” As Marx’s formulation implies, it is rather “the formation of a knowledge-based economy framed and subsumed by the laws of capital accumulation.” (215)

This argument resonates with an insight found in, among others, Patricia Clough’s work on affect and capital (2007, see also Clough and Wilse, 2011), where the biocybernetic body is taken out of the thermodynamic model of closed systems. Such systems were conceived as cancelling out time by forming a closed circuit characterized by steady states at equilibrium or constant states cycling in time; there could be an exchange of energy with the outside, but not with matter itself. Theorizing the capitalist motor-machines of the 19th century, Marx writes:

Nature builds no machines, no locomotives, railways, electric telegraphic, self-acting mules etc. These are products of human industry; natural material transformed into organs of the human will over nature, or of human participation in nature. They are *organs of the human brain, created by the human hand*; the power

of knowledge objectified. The development of fixed capital indicates to what degree general social knowledge has become a *direct force of production*, and to what degree, hence, the conditions of the process of social life itself have come under the control of the general intellect and been transformed in accordance with it. To what degree the powers of social production have been produced, not only in the form of knowledge, but also as immediate organs of social practice, of the real life process. (Marx, 1993: 706, *emphasis in original*).

When the machinic phylum is harnessed as a direct force of production in capital, processes of subjection return to a phase of embodied primitive accumulation, that is accumulation through the enslavement of affect or capacity. Clearly, the post-Fordist re-centering on cognitive labor moves the human-machine out of closed equilibrium states to develop new, continuous modulations of body-information technology-capitalist systems in societies of control. If the birth of artificial life and the expansion of superexploitative states of exception exacerbate the question of how revolutionary political practice will engage with the tools of nonlinear dynamics, chaos theory, and intensive science our intuition today is that the distributed networks of autonomous, living labor operate and hence mutate precisely because they are far from equilibrium, which is not to say revolutionary. Rather, the posthuman cybernetic machines are a new, extreme form of slavery. Deleuze and Guattari write:

If motorized machines constituted the second age of the technical machine, cybernetic and informational machines form a third age that reconstructs a generalized regime of subjection: recurrent and reversible “humans-machines systems” replace the old nonrecurrent and nonreversible relations of subjection between the two elements; the relation between human and machine is based on internal, mutual communication, and no longer on usage or action. In the organic composition of capital, variable capital defines a regime of subjection of the worker (human surplus value), the principal framework of which is the business or factory. But with automation comes a progressive increase in the proportion of constant capital; we then see a new kind of enslavement: at the same time the work regime changes, surplus value becomes machinic, and the framework expands to all of society. It could also be said that a small amount of subjectification took us away from machinic enslavement, but a large amount brings us back to it. Attention has recently been focused on the fact that modern power is not at all reducible to the classical alternative “repression or ideology” but implies processes of normalization, modulation, modeling, and information that bear on language, perception, desire, movement, etc., and which proceed by way of microassemblages. This aggregate includes both subjection and enslavement taken to extremes, as two simultaneous parts that constantly reinforce and nourish each other. (Deleuze and Guattari, 1987: 458)

Part of what we see throughout the corporate world is a reinvestment in ‘innovation’ (entrepreneurial capture machines) as an always unstable, stochastic, and necessary process of capitalist accumulation in the age of the digital. As Antonio Negri limns it, the ‘originality of cognitive capitalism consists in capturing, within a generalized social activity, the innovative elements that

produce value...' (qtd. in Peters and Bulut, 2011: xxv). This insight is built on by several of the contributors who focus specifically on the creation of value in network societies. Christian Fuchs argues that computer networks are 'the technological foundation that has allowed the emergence of global network capitalism, i.e. regimes of accumulation, regulation, and discipline that are helping to increasingly base the accumulation of economic, political, and cultural capital on transnational network organizations that make use of cyberspace and other new technologies for global coordination and communication' (Fuchs, 2011: 86).

In other words, the social factory under cognitive capitalism has dispersed its dispositifs. Around the world we witness not only its consolidation in new media marketing strategies of value capture through social networks, but emergent techniques for modulating the embodied capacity to sense and affect. Indeed, the social network is parasitical on affect, as Cote and Pybus, Sylvia Federici, Michael Peters and Emma Dowling all note in this volume. Effectively, what these critics bring to attention is the real subsumption of living labour under capital—the real and practical folding in/of affective and labouring capacity is both a tendency and variable within the non-equilibrium systems of digital capitalist control. Indeed, as more and more forms of expression, labor, reproduction, care, emotion, and affect are incorporated into capitalist accumulation strategies (Dowling's analysis of affective labor in the restaurant industry is a clear example) the precariat develops pathologies of hyper-expressivity, as Franco Berardi puts it (Berardi, 2007). Think of the exhibitionism of Facebook and Twitter, of the continual reevaluation of the self through LinkedIn and XING. The workings of many aspects of everyday neo-liberal life is legible in the unending modulations, audits, measures, and evaluations of populations understood as human capital (the neoliberal University is the perfect laboratory for the training of commodities training commodities), instruments and targets of digital control. The cognitive worker as the perpetual self-entrepreneur gives the lie to the creative economy. It is not autonomous creativity but competition for innovative capture and individualism for value that is the dominant mode of autonomy in our time (movingly analyzed by Dowling in her post quoted above).

There are many examples world-wide of this struggle between real subsumption and real autonomy in the far-from-equilibrium systems of biocybernetic control. My own research has focused on the social, economic, and political implications of the large-scale and rapid adoption of mobile phones throughout India in the past ten years. Real subsumption in this context has meant that the mobile phone has become a technology central to the workings of state and capitalist logistics (used, for instance, in tracking individuals, identifying movements, and securing populations both through the mobile itself and the process of securing a

workable SIM card, as well as in extracting more and more labour time from workers constantly connected and audited through their mobiles). On occasion the mobile phone has also been used in radical and populist journalism uncovering police injustice and governmental corruption, or as a coordinating tool in activist events, or as a viral machine sending out and forwarding timely information or politicized memes; twenty years ago in Mumbai women did not leave the house without pepper spray, today those who can afford it make sure before stepping out that their mobile is fully charged. In India today, new forms of sociality, movement, rhythm, gesticulations, attention, vision, touch, and sound are emerging at different speeds, scales, and patterns of distribution. One cannot discount the political and material impact of these shifts immanent to the habits of digital media for revolutionary becomings. (De)habitation is the very process that take these networks far from equilibrium through continuous and simultaneous vectorings of reterritorializations, deterritorializations, and lines of flight. To affirm Marx's communisation as a process through one's diagrams of body-machines necessitates transversal connections, conjunctions producing monsters who never cease to leave the axioms of capital.

But accumulation by dispossession also continues apace. Following the work of the Italian autonomists, Alex Means argues in the volume that within the biopolitical economy capital is increasingly charged with the expropriation of 'value as "rent"—the becoming rent of profit'. The expropriation of rent can be in the form of primitive accumulation or what David Harvey calls "accumulation by dispossession": the privatization of "fixed" assets like schools, transportation systems, hospitals, as well as natural resources and biogenetic materials. However, what is increasingly at stake is the capture of value directly on the basis of the common' (216). So can local critical events that reclaim and reorganize the commons (Tahrir, LSX, OWS, Occupy Mile End...) intervene in the general crisis of capital itself? As Peters and Bulut put it in the *Introduction*, 'it is safe to argue that we are in a period of universal crisis. Institutions built on the model of enclosed spaces, that is, the institutions of modernity—school, family, prison, factory, clinic—are in a struggle to redefine themselves. The modern institutions are struggling to survive within the crisis of flexible and informationalized capitalism whose survival is dependent on the very connections it promotes' (xxix). Certainly the crisis in technology, ecology, value, work, and subjectivity is global, but does it all arise from the conditions of cognitive capitalism, or are conditions more heterogeneous across forms of labor (factory, piecework, farm), and their effects more molecular and yet diffused?

For Peters and Bulut, and for many of the other contributors, 'cognitive capitalism' is a general term that has become significant in the discourse analyzing a new form of capitalism sometimes called the third phase of

capitalism, emerging from mercantile and industrial capitalism, in which the accumulation process is centered on ‘immaterial assets utilizing immaterial or digital labor processes and production of symbolic goods and experiences’ (xxv). Throughout the volume, the language of crisis and transition produces an uncanny feeling of being poised on some fundamental transformation already lived: ‘This place is pre-something’, as China Mieville puts it in the *London’s Overthrow*. Are we living through again, this time as farce, what Antonio Gramsci remarked as Europe’s fascist conundrum, in which the ‘old is dying and the new cannot be born: in this interregnum a great variety of morbid symptoms appear?’ (qtd. in Keyman and Koyuncu, 2005, 106). Is immateriality one such morbid symptom? And what exactly is immaterial about working in a Bangalore call centre for twelve hours a shift?

I end this review with a consideration of three themes central to the collection: the organic composition of industry (that is, the ratio between machinery and labour power in the production process); the political economy of affect (accumulation in the bodily mode); and the limits and potential of autonomy today.

In his appraisal of the cognitive capitalism theses, George Caffentzis argues that the image that Carlo Vercellone paints of the ‘parallelism between contemporary cognitive workers and the proto-industrial cottage-industry workers of the 16th to 18th centuries should be taken either as a grain of salt or as a seed of truth’ (45). For Vercellone, Caffentzis notes, the old putting-out system is a place where the direct producers were autonomous from the capitalist and need only meet him at the end of the labor process, i.e., ‘at the point of “capture.”’ However, he goes on to argue that the historical accounts of the putting-out system show the merchant capitalist deeply involved in the planning and organizing of the work process, with often ‘only a semblance of power over the instruments of production’ (45). For Caffentzis, this tendency of piece wages to organize payment in the putting-out system is very important, ‘especially if we run Vercellone’s parallel the other way and see the contemporary cognitariat as the domestic industry laborers of our time’ (45). This tendency toward piecework, ‘an obscured and fetishized form of time-wages’, is an image of the ‘21st century’s cognitariat’s plight’ (45).

Caffentzis is highly critical of the cognitive capitalist thesis however. Partly because cognitive labor is only one still relatively small part of the capitalist production, Caffentzis wonders at the importance it is granted in contemporary criticism. As he writes,

...there is no correlation between the cleverness, self-discipline, charisma or brutality of the individual boss and the rate of profit of his/her firm or industry. Some capitalists might be exploiting the hell out of their workers, say in a branch

of industry in which the exploitation rate is 100% but if their firms are in a low organic composition industry (roughly, the ratio between machines and labor power employed in the production process), they must share the surplus value created in their industry with the capitalists in industries at the high organic composition end of the system of production whose actual exploitation rate is 10%!...Vercellone and Boutang do not take into account the relationship between the lowest and highest organic composition poles of the system and the transfer of surplus-value from lower to higher branches for the latter to be able to achieve at least an average rate of profit. (50-2)

If we grant this argument (which we note is still tied to the basic humanist binary between bodies and machines – nanotechnologies and evolutionary algorithms, to name just two examples, blur this distinction), the implications are serious. The focus on the struggles in the knowledge-based sectors of the economy results in an overall neglect of class struggles taking place in the huge area of agriculture, for instance against land displacement, and in factory production worldwide, which together still account for about two-thirds of global employment (53-4). As an initial response (beyond the post-humanist critique), one might note that the cognitive capitalism thesis is not only about one area of capitalist production but, as crucially, about the gradual and increasing informatization of all aspects of capitalist production world-wide, which is one of the key dynamics effecting real subsumption.

Second is the question of affect. The genealogy of this term generally passes through Lucretius, Duns Scotus, Spinoza, Kant, Nietzsche, Bergson, Whitehead, Deleuze and beyond into contemporary biopolitical criticism. Michael Hardt in his pathbreaking book on Deleuze argued very clearly for the link between affect, essence, and power: the essential power of a thing is tied closely to its variable capacity to affect and be affected. As Federici and Clough from their different contexts note, feminist theorists have drawn on this concept to develop a critique of reproductive labor, while rigorously avoiding reducing affect to emotion or feeling. Today, affect has become important to militant materialist practices, strategies, and assemblages of communisation. As Cote and Pybus note, ‘the creative and communicative practices of immaterial labour enumerate what is novel in these [sic] new “economy of forces.” Further, part of the surplus of power produced—certainly that is pursued with great avarice by capital—is affect itself—the very stuff that coheres and differentiates those myriad networks that express those myriad subjectivities’ (177). What then is this ‘affect itself’? They go on to elaborate:

... capital relations are always already social relations. Social networks enable an exponential explosion of such social and economic relations. And what is also produced in these social and economic relations—indeed, what causes them to coalesce in the first place—is the production of affect. It is this affective trajectory that we argue passes through the heart of what is immaterial labour—a modality

of work that diffuses production (in subjectivity and consumption) throughout the extremities of the social factory (177-178).

For her part, Dowling draws a sharp distinction between affect and emotion. Thus, affect is ‘an attention to the inter-, or better transactions that occur between and among bodies prior to and in excess of how they are cognitised or verbally expressed as feelings. Affect as a philosophical, psychoanalytical and neuroscientific concept is connected to the relationality of “sense” and describes physiological shifts or transmissions of energy, mood or intensity....Affect is a “subjectively registered embodied experience” and emotion is a “cultural or discursive articulation of bodily response” (204). If forms of cognitive capitalism seem to be so much more insidious today it is because subjectivation has become bound up with the conditioning of affective capacities, the modulation of dispositions for memory and action, the shaping of habits of consumption and communication: accumulation in the affective mode targets and agitates the capacity for sense and sensation in life itself.

If sensation and its ecologies have become the moving target of value capture within cognitive capital what space is left for the autonomy of living labour? Certainly the Italian autonomist tradition affirms the potentiality of labour to create, refuse, sabotage, hack, flee, exit, and on occasion to precipitate a general crisis in accumulation (e.g. globalization as a result of workers in the core countries and the colonies refusing work and racialized servitude). Alberto Toscano warns against a too easy adoption of such a ‘vitalist’ position considering that ‘if all value stems from the autonomous, proto-communist interactions of “singularities” of living labour, what of the contradictions faced by a capital that both needs creativity and is obliged, politically, to stifle it?’ Two senses of the word autonomy must be distinguished he urges; indeed ‘between a substantial autonomy (of the kind we might equate with emancipation) and the formal autonomy of much outsourced, self-employed or precarious labour, there is no transition, just homonymy’ (263). For Toscano, while there are realities ‘antagonistic to the capital-relation, there are no forms of life or knowledge simply autonomous from it’ (268). As he argues:

The political problem lies precisely with the premise of autonomy. It is one thing to argue that the mutations in the organization of labour and in the state’s framing of the reproduction of the capital-labour relation have led to a shift in the mechanisms that subsume labour under capital, it is quite another to read this passage solely or primarily through the lens of the affirmation of an autonomy of living labour. This would in fact imply, rather perversely, that the loss of rights and security of labour is the result of a strange victory of labour over capital, forcing it to give labour greater autonomy....[W]e should ask which labour-power has become ever more autonomous because of the predominance of communicative knowledge and affective relations as sources of value under contemporary

capitalism. In my view, by and large—that is to say outside of enclaves or forms of emancipated commonality stolen from the rhythms and imperatives of capitalist valorization—what we face is an autonomy-within-heteronomy. This is the autonomy of the consumer and social entrepreneur, whose desire and creativity is by definition competitive. (263-264)

It is impossible to overestimate the importance of this warning: which and whose autonomy are we referring to? The autonomy of the entrepreneur to capture value, or the autonomy of a precariat to create the conditions of their own emancipation? But perhaps there is a category confusion afoot in Toscano's formulations? Perhaps the life of autonomous living labour, in its qualitative difference from the entrepreneur's mode of capture, is lived in a non-dialectical difference that does not go all the way up to contradiction or even antagonism, and its political value lies in its unceasing lines of flight that create conjunctions between radical practices of communisation—potentializing, anomalous, and experimental forms of life that are no longer subsumable within capital's relations of measure.

This is precisely where many of the contributors note that the neo-liberal educational institutions become sites of struggle over measure and value and a veritable laboratory for autonomy itself. Toscano is rather more pessimistic: 'The student-consumer formatted by the Browne Review, the catechism of the current counter-revolution-without-a-revolution in UK universities, is precisely a subject wholly determined by an instrumental relationship of financial calculus balancing the deferred purchase of skills and knowledge in the present against future income' (270). At stake is the relationship between the time of capital accumulation and the time of politics, and indeed what Toscano means by a 'substantive' autonomy. But we shouldn't subsume the time of autonomy within a presentist temporal disposition. We would do well to recall here a key passage from Deleuze (a constant point of reference throughout this volume) who urged a practice of another duration in the interests of a time to come:

Becoming isn't part of history; history amounts [to] only the set of preconditions, however recent, that one leaves behind in order to "become," that is, to create something new. This is precisely what Nietzsche calls the Untimely...They say revolutions turn out badly. But they're constantly confusing two different things, the way revolutions turn out historically and people's revolutionary becoming. These relate to two different sets of people. Men's [sic] only hope lies in a revolutionary becoming: the only way of casting off their shame or responding to what is intolerable. (170-171)

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