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RE-ENGINEERING HIGHER EDUCATION: THE SUBSUMPTION OF ACADEMIC LABOUR AND THE EXPLOITATION OF ANXIETY

Abstract: This article analyses the political economy of higher education, in terms of Marx and Engels' conception of subsumption. It addresses the twin processes of formal and real subsumption, in terms of the re-engineering of the governance of higher education and the re-production of academic labour in the name of value. It argues that through the imposition of architectures of subsumption, academic labour becomes a source of both overwork and anxiety. The article employs Marx and Engels' categorizations of formal and real subsumption, in order to work towards a fuller understanding of abstract academic labour, alongside its psychological impacts. The article closes by examining whether narratives of solidarity, in particular from marginalised voices, might help academics and students to analyse and then move beyond their alienated labour.

Keywords: Marx and Engels, subsumption, anxiety, academic labour

Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones. All fixed, fast frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses his real condition of life and his relations with his kind. (Marx and Engels, 2002, 13)

Introduction

In North America, across Europe and in Australasia, higher education is operating under conditions that Marx and Engels would recognise: “constant revolutionizing of production” in tandem with significant “disturbance of all social conditions” have wedged universities into a state that is fairly described as “uncertainty and agitation”. Along with other public and private sector institutions, higher education has been profoundly affected by responses to the global financial crisis that began in 2007 (Hall, 2015). In particular, tensions have emerged between the potential for higher education to deliver public goods that have useful, societal or communal benefits (Mountford-Zimdars *et al.*, 2013), and an emergent view that prioritises successful marketisation and financialisation as the driving purpose of higher education as a business (Holmwood, 2011; McGettigan, 2014).

Critics of marketisation argue that while higher education is still substantially funded as a public institution, it has been repurposed as a private benefit rooted in the family and variable human capital theory (McGettigan, 2015), and shaped by an entrepreneurial turn (Davies, 2014). Marketization erodes the possibility of using publicly-funded, regulated, and governed universities to deliver more socially-just outcomes, although whether education delivers public goods is contested (Marginson, 2012). Tensions have been exacerbated by the use of secondary policy mechanisms to deliver structural change, including: lifting caps on student numbers; enabling private providers and on-line consortia to compete with traditional universities and colleges; significantly increasing fees for study; the sale of national, student loan-books; and the entry of private equity firms into the re-financing of HE. These mechanisms suture national systems into the global higher education market, and by these means educational opportunities and services are transformed into tradeable national assets (Deem *et al.*, 2008; Norton, 2014; Willetts, 2014).

This materialisation of a global market repurposes academic and student labour, while at the same time adjusting the higher education workforce to accommodate an expanding category of administrative labour. Professional staff in universities are employed under widely varying conditions, from salaried executives with benefits, performance bonuses and considerable career mobility, to short-term low-waged temps with few entitlements and very limited protection. The persistence of a sense of budgetary crisis that can only be resolved by flexible hiring has dramatically increased the number of staff working limited term and zero-hours contracts in higher education, and this in turn has normalised an internal culture of job competition galvanised by resource scarcity (National Tertiary Education Union (NTEU), 2014; University and College Union (UCU), 2013). Restructuring interventions aimed at minimising labour costs are perfected in the accumulation and manipulation of data focused on increasing system outputs, for instance though: the development of baskets of metrics that will enable ‘learning gain’ or ‘teaching excellence’ to be measured in the UK (Johnson, 2015); or the public release of a substantial tranche of college performance data by the US government, to enhance the consumerisation of HE participation (US Department of Education, 2015); or the increasingly sophisticated development of survey instruments and student experience dashboards that inform the delivery of education-as-a-service into a highly mobile global education market (Australian Government Department of Education and Training, 2015a).

In this volatile international marketplace for educational services, the apotheosis of locally harvested performance data is the international university ranking system. These crude but highly effective instruments require the performance of both employees and students to be monitored and disciplined in order to raise overall output and improve survey results. The purpose of higher education is reengineered towards survival, in the face of increasingly aggressive penetration of scholarly work by national economic priorities (Grove 2015). Both research and, critically, pedagogy are now governed by a language rooted in productivity and organisational development: ‘competitive advantage; ‘leverage’; ‘value-added service improvement’; ‘business process re-engineering’; and ‘business transformation’. Externally, these priorities are expressed in the truisms of strategic planning and university mission statements, so that ‘real-world solutions’, ‘anytime anywhere’ technology, and ‘career-ready graduates’ are becoming familiar terms. Universities deliver return on investment through brand, portfolio and product; and with other large corporations they have refocused their strategic planning on market share and capitalisation. This enables universities to compete on a national and international terrain, but also crystallises their role in developing a globally competitive workforce. In this way higher education is recruited to a national productivity agenda shaped around domestic and foreign investment, and commodity production (Department of Business, Innovation and Skills (DBIS), 2015; HM Treasury, 2015).

These transformations have catalysed a wide range of expressions of distress from those who work and study in universities. At times, this has been explained away as the consequence of a scholarly vocation that adapts poorly to the realities of marketization under capitalism. Indeed, for many academics this has been the basis of a defence of scholarly vocation against the encroachments of surveillance and the normalisation of competitive practices in a profession founded on ideals of collegiality. As Tokumitsu

(2014) argues, “Few other professions fuse the personal identity of their workers so intimately with the work output.” But while this myth of scholarly vocation persists, the reality is that higher education systems in the global North have become structurally dependent on precarious labour, with the traditional scholar-teacher hired until retirement becoming a minority. For instance, in the UK, UCU (2013) noted that “The number of zero-hour teaching contracts in universities equates to 47% of the total number of ‘teaching-only’ posts that institutions report annually to the national statistical agency”. In Australia, Norton (2014, 32) estimated that for universities and non-university higher education providers, more than half of all teachers are employed casually. The report by Andrews et al (2016) into contingent academic employment in Australian universities notes that from 1989 to 2013 “the percentage of academic staff (full-time equivalent, FTE) employed on contingent contracts (fixed-term and casual/sessional) increased from 40% to 56%. Andrews et al cite the estimation by Coates and Goedegebuure (2010) that “casual academics undertake 50% to 70% of undergraduate teaching”. As these imprecise estimates make clear, there are two problems with the measurement of casualization: one is deciding what to measure, and the second is finding a reliable data source to measure it. Nevertheless, there is broad agreement that in response to the enrolment of more students, the casualization of the university workforce is increasing as a proportion of the whole. In many national systems this has seen the rise of organised activism and protest, expanding unionisation of casual workers, and the vocal disillusionment of early career academics at the prospect of ever achieving secure work (McKenna, 2015). These movements are hard to dismiss as the protests of a sheltered or overly sensitive professional clique.

Public discussion of higher education and its troubles continue to treat the sector as one predominantly constituted through this vanished form of career stability. As a result there is an increasingly obvious disconnect between the vision of higher education expressed in performance data, strategic plans, and vision statements, and the practical experience of holding on to short-term and sessional academic work. At the same time, the casualisation of core services has left a diminishing cohort of career professionals to maintain robust standards for academic governance under conditions of austerity budgeting. This diminishing cohort is also expected to sustain individually-competitive research performance to enable whole institutions to survive. The result is that even those who are securely employed work in a climate of demoralisation, threat and confusion. Access to global and public social networks has given academics a platform to protest these conditions, and these platforms have increasingly provided a forum for personal narratives of overwork, illness and anxiety. Stories of working in higher education that have been widely shared include accounts of personal tragedy, lost hope, exploitation and career abandonment. These stories of harm demand that we begin to address the connections between the transformation of academic labour and the structural exploitation of labour under capital in other sectors of the economy, including historically (Winn, 2014).

In this article, we suggest that in order to move beyond individualistic accounts of career distress, and to connect the transformation of higher education to broader transformations of labour and capital, it is helpful to engage with the concept of subsumption (Marx, 1864; 1993a; 2004). Subsumption is the process through which inherent constraints on the labour capacity of a particular sector of the economy are overruled, and subordinated to the demands of capital. In formal subsumption, pre-capitalist work — for example, subsistence agriculture or guild-based craft-work — is called into the service of capital. Established labour processes are then manipulated to increase output, for example by lengthening the working day, so that ever-higher levels of surplus value can be extracted from the management of working bodies. In real subsumption, capital reinforces its domination of labour but now more radically transforms the labour process itself through the application of *the general intellect*, to increase its productivity beyond the limits of unassisted human capability. Science, technology and organisational development enable capitalist social relations to be reproduced as a terrain of domination (Vercellone, 2007). As a result, “The labour process becomes the instrument of the valorisation process, of the process of capital’s self-valorisation” (Marx, 2004, 470), and this becomes a moment in the production of relative surplus value.

Further reflection on this critique of higher education, in its relationship *both* to the general intellect *and* to innovations in science, technology and organisational development, is enabled by the meaning of

subsumption that draws on navigational programming in robots. Subsumption architecture in robotics allows a resolution to the problem of creating intelligence in machines, and proposes that a nested sequence of competencies enables adaptive navigation of complex environments by those machines. This unpacking of action into the sequencing of minor adjustments to environmental inputs has strong resonance with the language of ‘unbundling’ currently dominating efficiency reforms in higher education (DBIS, 2015; Johnson, 2015). Critical to our reading is that the labour of a machine under subsumption architecture impersonates agency without any capacity for autonomy, any need for creativity, or the presence of a central controlling intelligence with which it communicates in order to plan its actions. One outcome is the generation of automated, repetitive institutional responses to teaching, assessment, research and administrative tasks, as structural, systemic features designed to leverage productivity.

Thus, we propose that financialisation and marketisation are generating similarly structured architectures of subsumption inside higher education, which further capital’s terrain of domination. Their effect is that *both* higher education as a social institution *and* work inside higher education are being redesigned to function robotically through the sequencing of managed tasks, as a machine whose primary purpose is its own continuously accelerating navigation through an uncertain world. This generates the conditions under which anxious hyper-vigilance itself becomes an appropriate competency, and even an expert response, that harmonises to the pressure of accelerated navigation, input sensing and task management (Brooks, 1991).

Our aim is to address the transformation of higher education through an analysis of the waves of subsumption that are violently recalibrating academic labour. Our primary focus is on Marx’s proposition that subsumption is a dynamic process for the subordination of labour “whereby universal and particular are brought into relation” (Endnotes, 2010). We keep in view the secondary idea of subsumption as a model for our increasingly robotic navigation through the disciplining routines of a system whose main purpose seems to be to keep itself going. In these difficult conditions, higher education — like other knowledge work industries, especially in technology and software development — has exploited and normalised anxiety-driven overwork as a culturally-acceptable self-harming activity (Turp, 2001). Our goal in drawing on both meanings of subsumption here is to relocate the discussion of this anxiety as pathology inherent in the weak, and to widen the examination of the role that anxiety plays in service of capital itself. There is a useful technical history to the calculated demand for overwork originating in formal subsumption that matures into the practices of anxiety immanent in real subsumption.

We are interested in the possibility that the anxiety currently manifest in higher education is not an unintended consequence or malfunction, but is inherent in the design of a system driven by improving productivity and the potential for the accumulation of capital. Our primary contention is that by exposing to critical scrutiny the subsumption process as a phased intensification of distress, we can begin to argue that academics and students should rethink their participation, and seek instead ways to co-create viable practices of refusal. Specifically, we are proposing here that there are grounds for a collective refusal of the reproduction of anxiety as a multiplier of labouring capacity through its increasing integration within the circuits of capitalist reproduction inside higher education. We invite both workers and students within higher education to consider means by which their labour can be reclaimed from this anxiety machine.

Towards an architecture of formal and real subsumption

In developing his critique of Capital, Marx proposed subsumption first through an analysis of the production process as the *real basis of ideology* in *The German Ideology* (Marx and Engels, 1998); and then in relation to the *Results of the Direct Production Process* in the *Economic Manuscripts of 1861-64* (Marx and Engels, 1864). This theorisation engages with the production of value in both Volume 1 of *Capital* (Marx, 2004) and *The Grundrisse* (Marx, 1993a). In the former he connects this to the idea of social labour, whilst in the latter we are able to draw connections between capital’s domination of labour and its co-option of the general intellect, or socially-useful knowledge. The development of subsumption has been elaborated in terms of: a process of transformation, rather than a specific periodisation

(Endnotes, 2010); the relationships between valorisation and abstract labour (Postone, 2012); and its relationship to cognitive capitalism and the general intellect (Vercellone, 2007).

Each of these elaborations enables a renewed analysis of the process of subsumption as it relates to academic labour, in particular in the re-engineering of academic practices as productive of surplus value and therefore profit. This process of valorisation ensures that subjectivity and autonomy rest with capital, so that prior expectations of academic autonomy become unredeemable. In analysing the transformation of labour as a process through which people work on the world and valorise it, Marx (1993a, 650) notes that “It is not the individuals who are set free by free competition; it is, rather, capital which is set free.” Once set free to reproduce itself for value, capital then subordinates the landscape of production at first co-opting it, and later transforming it so that productivity and value-added are internalised inside both those who labour and those who manage the labour-process.

[T]he creative power of [an individual’s] labour establishes itself as the power of capital, as an *alien power* confronting him... Thus all the progress of civilisation, or in other words every increase in the *powers of social production*... in the *productive powers of labour itself* – such as results from science, inventions, divisions and combinations of labour, improved means of communication, creation of the world market, machinery etc., enriches not the worker, but rather *capital*; hence only magnifies again the power dominating over labour... the *objective power* standing over labour. (Marx, 1993a, 307-8)

In Marx’s analysis, the power of capital rests on its domination of production, and its subsequent violation of established labour processes in order to transform production for its own ends. The idea of violation is rooted in the subordination of both the form of labour and its content, rooted in the dispossession of space, time (or space-time) and autonomy, in order to accumulate surplus value. Whilst we are not engaging with a specific analysis of the categories of ‘use value’ and ‘exchange value’ in terms of commodities, or of ‘labour’ and ‘labour power’ in terms of an individual’s work, it is important to note that these categories exist at the same time and emerge in relation to work. Thus, a commodity has both a use value and an exchange value, and this applies to academic products, like teaching texts, assessment transcripts or portfolios, and research outputs. They can be used or useful in and of themselves, and they can also generate new forms of exchange or even profit in a market. Exchange value is key to the development of capitalist social relations, through the purchase of labour power from the labourer. Labour power forms the critical, dynamic commodity that enables processes of valorisation through creativity and the expenditure of human labour. These categories underpin the dynamics and contradictions of capitalism, in part because capital seeks to reduce the costs of employing labour power through technology and organisational change, but at the same time it demands new forms of entrepreneurial activity so that it can develop new, tradable commodities.

In engaging with these contradictions, the concepts of formal and real subsumption help us investigate the continuous reform of academic work. For Marx and Engels (1864), formal subsumption “is the condition and presupposition of” real subsumption. In the former, work that sat outside capitalist social relations is brought into direct relation to it through the purchase of labour-power. So, for the guild-based craftsman who becomes a master able to employ journeymen and apprentices:

Only in his own craft can he convert his money into capital, i.e. use it not only as the means of his own labour but also as a means of exploiting alien labour. His capital is tied to a particular form of *use value*, and therefore does not confront his workers as *capital*. (Marx and Engels, 1864)

However, over time these restrictions on development—the regulations of the guild around quality, time-serving or the number of journeymen serving under a master—come under pressure. In particular, there is pressure from the emerging circuits of money capital, production capital and commodity capital (Marx, 1993b). As these circuits mature and their effects amplify, the money relation enables an individual’s labour-power, and therefore her *surplus labour*, to be ‘appropriated’ by capitalists who own ‘the conditions of labour’. This then begins the process of economic dependency rooted in concrete or objectified labour:

the *objective conditions of his labour* (the means of production) and the *subjective conditions of his labour* (the means of subsistence) confront him as *capital*, as monopolised by the buyer of his labour capacity. The more completely these *conditions of labour* confront him as alien property, the more completely does *the relation of capital and wage labour* occur *formally*, hence the formal subsumption of labour under capital, which is the condition and presupposition of its *real* subsumption. (Marx and Engels, 1864)

In this phase the social forces of production, rooted in the objectification of concrete labour, remain relatively unchanged (Harvey, 2010). Whilst the content of the work is repurposed through the money relation, its form remains the same with no application of science, technology or organisational development. This political economic moment reveals: first, “an *economic* relation of domination and subordination, in that the consumption of labour capacity is done by the capitalist, and is therefore supervised and directed by him”; and second, “a great continuity and intensity of labour and a greater economy in the employment of the conditions of labour, in that every effort is made to ensure that the product only represents *socially necessary labour time*” (Marx and Engels, 1964). Socially necessary labour time is a principle rather than an invariable unit of calculation. For Marx, it is “that [time] required to produce an article under the normal conditions of production, and with the average degree of skill and intensity prevalent at the time” (Marx, 2004, 39). This is the foundational production problem on which capital builds its search for surplus value.

The distinctions between absolute and relative surplus value are important in engaging with subsumption. A starting point is the division of the working-day into, first, the necessary labour required to enable the labourer to re-produce her costs as wages, and, second, the surplus-labour that can be materialised as profit. Under formal modes of subsumption, or more under-developed capitalist production processes, the search is primarily to increase the absolute, social amounts of surplus-value that can be produced and accumulated. This happens by extending the working day, or by locating new markets from which to accumulate. Whilst the production of absolute surplus value offers sufficient returns, there is little investment in techniques that can reduce *socially necessary labour time*. However, competitive advantage is gained by those businesses that can revolutionise their production processes, so that they produce in less labour time than that which is socially necessary. Such businesses produce more surplus-value relative to those businesses with which they compete socially through the revolutionising of the production process, including through the application of new modes of organisational development and technologies. These developments then revolutionise the relations of production through new labour relations and working conditions.

Under formal subsumption, potential crises of underconsumption and weak profit can be ameliorated by working labour longer. Although these crises cannot be indefinitely addressed in this way, it is by this move that formal subsumption instils overwork as the primary redress to underconsumption. This compulsion then intensifies into anxiety as the subordination of labour is transformed into its subsequent abstraction and alienation through *real subsumption*. The limits reached under formal subsumption, in terms of the restricted amount of absolute surplus value available for accumulation, do not enable the free reproduction of capital. The real subsumption of labour under capital therefore focuses on the application of more productive technologies or techniques that restore competitive advantage and relative surplus value. This gives the innovator a momentary advantage in being able to ameliorate her labour costs against the average socially necessary time required for the production of a specific commodity. However, once the innovation is spread more generally, the innovator loses her advantage, and the socially necessary labour time for commodity-production is recalibrated (Marx, 2004).

The difference between the individual value of the cheapened commodity and its social value vanishes. The law of the determination of value by labour time makes itself felt to the individual capitalist who applies the new method of production by compelling him to sell his goods under their social value; this same law, acting as a coercive law of competition, forces his competitors to adopt the same method. (Harvey, 2010, 168)

In real subsumption the boundaries that resist capital's emergence as a social totality are crossed. Labour is re-engineered through the technological and organisational innovations that reshape both the material forces of production and the social relations of production (Marx, 1993a). Industrialisation and innovation now ground society's reproduction in the continuous recreation of abstract labour for exchange value (Marx 2004). Real subsumption emerges in response to the frustration of capitalisation across specific sectors of the economy, and has the effect of fundamentally transforming the meaning and practice of work. As Marx (2004, 502) states, "The worker has been appropriated by the process; but the process had previously to be adapted to the worker."

This recalibration of labour value is damaging to those who work, and to those who are drawn into the reproduction of their working capacity.

[M]achinery sweeps away every moral and natural restriction on the length of the working day. Hence too the economic paradox that the most powerful instrument for reducing labour-time suffers a dialectical inversion and becomes the most unfailing means for turning the whole lifetime of a worker and his family into labour-time at capital's disposal for its own valorisation (Marx, 2004, 531-2).

To achieve transformation at this scale requires access either to money capital, in the form of merchant or venture capital, or private equity. Thus, Marx argues, the processes of capital production, circulation and accumulation become inherently incapable of achieving stasis.

By means of machinery, chemical processes and other methods, [modern industry] is continually transforming not only the technical basis of production but also the functions of the worker and the social combinations of the labour process. At the same time, it thereby also revolutionizes the division of labour within society, and incessantly throws masses of capital and of workers from one branch of production to another. Thus large-scale industry, by its very nature, necessitates variation of labour, fluidity of functions, and mobility of the worker in all directions. (Marx, 2004, 617)

As capital's demand to exercise absolute priority over the deployment of labour comes to seem increasingly reasonable, it extends the tendencies to overwork seen in formal subsumption, and synthesises these with compulsions of consumption, productivity and esteem. Overwork itself is transformed as a defensive action against deskilling, under- and unemployment (Newfield, 2010), which might be seen as a response to the search for absolute surplus value. This also reflects the drive of national governments to promote constant reskilling in the national interest, for economic growth, and which in turn has driven narratives of precarious employment, the need for near constant reinvention of the Self (Berardi, 2009; Vercellone, 2007). This ensures the suppression of cooperative or emancipatory educational practices that are not harnessed to capital's investment in productivity and relative surplus value (Amsler, 2015; bell hooks, 1994), by relabeling these as unproductive and time-wasting.

We have focused at length on Marx's account of the transition from formal to real subsumption across the economy because we believe it is important in thinking through the relationships between subsumed labour and health in our sector. Three key points emerge from Marx's analysis of this transition. First, the revolutionising of the economy through the search for absolute and then relative surplus value destabilises the essence of what it means to labour. Second, the systematic governance of human time by capital achieves the violent subordination of space (Marx, 1993a, 524), materially constraining the possibility of exiting the space of labour. Third, the personification and naturalisation of these abstract processes as if they were traits of high performing entrepreneurs or capitalists enables the labelling of others as 'unproductive', 'coasting', 'poorly performing', and so on. This generates "a society entirely subjugated to the economy" (Jappe, 2014, 399), inside which the search for relative surplus value attempts to make superfluous anything that is unproductive (Rubin, 1972).

We now consider the manifestation of these totalising processes inside-and-against academic labour.

Architectures of subsumption inside HE

The transformations in higher education in North America, Europe, and Australasia that we described in our introduction have catalysed new practices of university governance, and entrenched a new faith in metrics formalised across the sector in practices of institutional benchmarking and global ranking. These processes in turn generate new markets for the aggregation and selective exploitation of performance data around retention, attainment, progression and employment outcomes. In the UK, for example, this focus promises to extend previous national surveys of student satisfaction and key information sets into the idea of ‘learning gain’ (The Higher Education Funding Council for England (HEFCE), 2015). In Australia, the Quality Indicators of Learning and Teaching dashboard, that enables prospective students to interrogate institutional data previously only reported to government, emerges from the same idealisation of a competitive education market (Australian Government, Department of Education and Training, 2015b).

In this context, consumer-facing tropes of return on investment such as ‘learning gain’ or employment outcomes trigger an impulse to make the control of academic labour publicly visible through routines of quality assurance and innovations like ‘teaching excellence frameworks’ (Johnson, 2015). Less visibly, institutions scramble for opportunities to extend the generation of absolute surplus value, for example through increased access to international markets, or the removal of student number controls in domestic markets (Australian Government, Department of Education and Training, 2015a). Together these imperatives drive the invention and implementation of efficiency measures within internal organisational structures, as institutions seek to apply technological solutions to processes previously dependent on human labour. All these measures are aimed at driving down operating and labour costs, including costs of the expanding administrative workforce, in order to redeploy budget surpluses towards capital-intensive activities, estates infrastructures and branding activities that are potentially attractive to students.

As the administration of higher education adjusts to a form of austerity budgeting in many core operations, the disciplining of academic labour moves to centre-stage. Academic labour becomes a key terrain for the management of institutional productivity, monetised both through knowledge transfer and exchange, and through the development of an unconstrained global market for unbundled educational services. The explicit subordination of academic labour to the law of value is laid bare, and competition in the search for surplus-value becomes a form of compulsion that requires increasingly complex scientific methods and technical solutions. Techniques rooted in the management of information, risk, time and performance are overlain onto the implementation of new classroom technologies which demand on-going continuous professional development (World Bank, 2011). As a result, and despite numerous references to universities as unchanged since Bologna, the HE institution of today resembles a joint venture company or an association of capitals (Hall, 2014) far more than it does a craft guild or monastic practice.

For both academics and students this process of domination and subordination exposes a radical disconnect between their useful, social work, and the need to produce educational and knowledge commodities that can be exchanged. As socially-useful academic knowledge is transformed through the law of value, this contributes directly to the extension of the general intellect as a means to further the division of labour; to generate new capital from forms of cognition; and to deliver technological innovation (Marx, 1993a; Vercellone, 2007). The material, social, common wealth that forms one potential outcome of academic work is re-cast as globally tradable knowledge commodity, as academic labour moves from being objectified to being alienated. As a result “scientific knowledge is increasingly materialized in production... [and] a growing disparity separates the conditions for the production of material wealth from those for the generation of value”. (Postone, 1996, 297)

The search for relative surplus value recalibrates academic labour to capital’s broader demand for mass education as a necessary condition for the reproduction of the social relations of production (Marx, 1993a). For Vercellone (2007, 27)

The key role attributed to the theme of the development of a ‘socialised and free’ sector of education in the conflicts concerning the control of ‘intellectual powers of production’ is,

therefore, an essential element of Marx's elaboration of the notion of the general intellect. The establishment of a diffuse intellectuality is configured as the necessary historical condition.

This necessary condition for the reproduction of capitalist social relations across the sector is made visible in multiple innovations in the forces of academic production, that have the intended effect of extending the law of value across the terrains of teaching and scholarship. The tracking of academic labour in relation to publications, citations, grants and impact factors, as well as student satisfaction, learning gain, and future earnings, is a search for value from quantifiable outputs. While seeking to generate new forms of commodity capital through educational outputs, capital is also always seeking to reduce academic labour-time as a cost factor, and to appropriate intellectual work. The resulting tension in institutional purpose is transferred through the processes of real subsumption to the lived experience of academic labour, where it manifests as an apparent crisis of anxiety.

This constant process of widening the diffusion of intellectuality and then attempting to resolve the tensions that emerge from it continue to re-shape academic labour and reterritorialise higher education. This re-organisation in turn leads to constant revolution in the form and content of academic identities and relationships (Marx and Engels, 1864). The particularity of academic labour is subsumed under the abstract nature of the universal law of value that

presents itself as the *truth* of this particular; indeed it is as if this particular has become *nothing other than* an instantiation of the universal that subsumes it. Yet it seems that there must be something left over in this process, for the abstract universal is still just what it was at the start, while the particularity which the particular had in opposition to the universal has now been abstracted away entirely. (Endnotes, 2010)

A secondary outcome of this reterritorialisation is the profusion of instrumental, institutional policies designed to work on and through the identity of the academic, in order to maintain reputation or brand (Ball, 2003). The modern university is curated by a formidable inventory of policies to contain reputational risk or brand disparagement. At minimum, these include policies for the appropriate delegation of authority throughout the institution's processes; the application and monitoring of standards for public and policy expression; the management of staff in terms of absence, performance, promotion, retrenchment and safety at work; the regulation of formal academic conduct; and the proper processes for procurement and use of facilities, including IT. To these are joined a raft of policies that extend the university's terrain into the domain of the interpersonal: policies for formal and informal social media use; policies to manage personal relationships; and policies to achieve propriety in all relations with external stakeholders, from students to vendors and research subjects. The policy apparatus enables institutional performance signals to be internalised so that they inform academic 'dressage' beyond the workplace and into society as a whole (Foucault, 1975). Pace Camatte (1988, 45), in this way academic labour is not simply alienated; rather there is a 'total subsumption of [academic] labour under capital'. Here, capital dominates more than the academic's labour-time; it tends to describe the life-time of the academic (Endnotes, 2010; Jappe, 2014a).

At issue are the repercussions of this architecture of subsumption for those who labour in universities. What are subsumption's social and emotional expressions? How can we draw attention to the precise forms of anxiety that generate automated, hyperactive and repetitive institutional responses, and which are of such competitive advantage that we need to think of them as a structural feature of the system, rather than a bug.

Subsumption's expressions: From overwork to anxiety

As academic labour is restructured, the potential for sustaining a shared sense of purpose among academics, students and administrative workers (including those who are current or former students) comes under pressure. Divisions deepen between those with tenure, the precariously employed graduate student or long-term academic casual, and the undergraduate who is forced into a precarious existence

rooted in unpaid academic labour (CUPE3903, 2015; CASA, 2015; Jubas, 2012). The humanity of the academic or student who labours becomes an abstraction that is scrubbed of its potential beyond the production of value. Colleagues are compelled by reporting architectures to turn on (and turn in) those who fall below productivity thresholds; students find their academic labour subject to the disciplining gaze of learning analytics, while their feedback is extorted as a source of data that feeds into institutional market gain. Metrics of productivity and efficacy continuously attempt to discipline and recondition the future through the selective deployment of just-in-time patches, whether in the management of careers or curriculum. The result is a structure of tightly controlled but ultimately unfixable position-taking, in which we witness individuals fracturing and cracking as their academic identity is framed either as system deficit, or mined for growth (Plan C, 2014; Taylor, 2014).

At the same time, we see efforts by institutions to offer remedial actions while still disavowing the origins of the crisis that these remedies seem to address. These remedies vary, but typically include survey investigations of university staff workplace satisfaction; investigations into workplace culture; professional development that increasingly mimics psychological self-help techniques; and the incursion of corporate wellness programs troped as teambuilding strategies (Voice Project, 2015; Global Corporate Challenge, 2015). In systems that depend on overwork at every level in order to function as a site for the production of relative surplus value, these interventions introduce contradictions that require skilful executive reframing. For example, one respondent to a UK HE network survey on workplace bullying argued that

Constant restructuring, constant changes in policy and procedures, and the constant increase in demands have created a state of acute anxiety and utter demoralisation for all staff at every level. (Shaw and Radcliffe, 2014)

A University Vice-Chancellor responded to these survey findings, in which 58 per cent of 1,300 respondents argued that there was “an atmosphere of competitiveness and bullying” in UK HE, by stating that such emotional damage was “a symptom of the breakdown of values and a shared sense of purpose”. Under the extreme pressure of the shift to real subsumption, any shared purpose has been co-opted through the search for more educational capital to set in motion, realised in the restructuring of the University as a business whose new purpose is to generate continuously the conditions of its growth and profitable operation (Marx and Engels, 1864).

In these circumstances, the abstraction of value plays out psychologically, so that any desire to be something other than an entrepreneur is disciplined, suppressed or marginalised. Critical to this disciplining function is the spectacle of labour precarity (Taylor, 2014), which has the paradoxical effect within an entrepreneurial culture of *limiting* innovation by both the casually and securely employed. The spectacle of casualisation appears at one level simply to underwrite the claims made for elite and competitive recruitment. However, its function is more nuanced: as expanding casualisation makes visible the threat of career failure in a context of employment scarcity, it becomes a significant generator of specific anxiety manifested in day-to-day academic overwork.

Allied to this is the constant demand for performativity, or the construction of a productive educational identity, rooted in repetitive practices, which enable teaching, assessment, research and administration to be performed in line with dominant conventions (Ball, 2003). This drives a generalised anxiety erupting from the loss of identity based on shared purpose, and the impossible tension of maintaining an entrepreneurial practice without autonomy. Here contradictions are revealed between, first the need to reduce the costs of labour power that drive commodity production and exchange value, and second the need for the concrete labour of academics to teach and research. As Capital attempts to decrease socially necessary labour time by disciplining labour through the intensification of the labour process and the production of relative surplus value, it also expects academics to be entrepreneurial and creative. This contradiction cannot be resolved within capitalist social relations, although it underpins the constant revolutionising of the forces and relations of production, and the demand for constant reskilling and overwork.

Critically, the convergence of overwork, precarity, and near poverty have emerged as higher education has been folded into capital's responses to global financial crisis. This convergence has demonstrated the impact of the politics of austerity on the cognitive and emotional labour of students, as well as staff (Hoffman, 2015), with the result that institutions are compelled to invest in research and programs to address the consequences of their own continued efforts to achieve the subordination of labour to value, and the search for relative surplus value.

Studies have found that graduate school is not a particularly healthy place. At the University of California at Berkeley, 67 percent of graduate students said they had felt hopeless at least once in the last year; 54 percent felt so depressed they had a hard time functioning; and nearly 10 percent said they had considered suicide (Fogg, 2009)

These findings are not easily contained within the celebratory repertoires of the institutions who are both the authors and subjects of the research. They describe conditions that emerge from the continuous drive to increase efficiency, through which higher education is transformed into a machine for the production of value and which produces anxiety as a concomitant structural characteristic. In higher education, anxiety manifests simultaneously as paralysis and hyperactivity in response to the acceleration of production, and from this contradiction a refined form of academic anxiety emerges as an energised compulsion to meet impossible demands.

[C]apitalism, through its process of production, produces an awesome schizophrenic accumulation of energy or charge, against which it brings all its vast powers of repression to bear, but which nonetheless continues to act as capitalism's limit. For capitalism constantly counteracts, constantly inhibits this inherent tendency while at the same time allowing it free rein; it continually seeks to avoid reaching its limit while simultaneously tending toward that limit.... there is the twofold movement of decoding or deterritorializing flows on the one hand, and their violent and artificial reterritorialization on the other. (Deleuze and Guattari, 1983, 34)

The subordination of academic labour to the violence of reterritorialization as a form of real subsumption forces individuals to refuse all opportunities for rest. The academic future is collapsed into the present and the persistent need to perform simultaneously as a scholar, a teacher, a peer, an administrator, and a project manager (Plan C, 2014). The reality becomes the constant treadmill requirement for academic labour to sustain its own condition of reproduction, even when attempting to address itself to the crisis of hyperactivity that this demands.

Academic lives then have to cope with the dissonance of this transformation. For Grollman (2014), this is unresolved inside tensions that are revealed between the fatigue of social solidarity and personal survival:

Everyday, I am faced with the decision: group survival vs. individual survival. Since these are opposing decisions, I rarely, if ever, experience both... By creating this blog, I am "taking one for the team," enduring known and unknown professional risks in order to improve the lives of marginalized scholars. Everyday that I wear a man's suit, I am choosing professional safety (as well as safety from violence) over greater visibility of genderqueer people on campus. Every interaction with a student or colleague — do I choose authenticity and social justice or safety and job security — carries the decision between my survival or my survival. And, major decisions like making my research more "mainstream" to increase my professional status comes at the expense of my own authenticity and perspective. The very things I should and *should not* do as a tenure-track professor seem at odds with the very things I should not and should do as a Black queer person.

Under these conditions, the academic self is unhelpfully reified: it acts not as a conduit for hope or courage, but as a container for disappointment in the present and continued anxiety about the future.

Elsewhere, we have compared the emergency of the university as an anxiety machine to that of the peloton in pro-cycling, calibrated to the performance of the leader who has succeeded precisely on the basis of capacity to push the boundaries of obsessive overwork (Bowles, 2013). Just as the high-

performing athlete continuously adjusts the standard of performance of others in the search for competitive advantage and relative surplus value, so the overworking academic does the same. Self-harming behaviours are normalised by the expectations of competitive markets, rather than appearing disordered or unsustainable. These activities demand the internalisation of the question, “Am I productive enough?” that risks becoming a projection onto others: “are you productive enough?” This projection militates against forms of solidarity and co-operation that are beyond value, including those produced in relationship with peers and students.

The processes that dominate academic time for the production of relative surplus value ensure that academic labour is continuously recaptured from these forms of solidarity, and redeployed as the free form of capital.

Even radical faculty who seek to enact transformations *outside* the university find themselves performing *within* the university as managers not only of their own labor, but of that of their students and their colleagues, designing curriculum and imposing regulations that require students be physically present and adopt a certain performative attitude during class time through the coercive metrics of attendance and participation grades. (Meyerhoff et al., 2011, 493)

If we can see this coercion away from practices of solidarity as an intentional function of higher education governance that generates and maintains anxiety as the pathology of the most successful individuals, the question is: ‘what is to be done?’

Conclusion: Against subsumption and the reproduction of anxiety

In this article, we have proposed that it is useful to reconsider anxiety as the normalised response of a radically altered academic identity, in a sector that has been aggressively reorganised to subordinate the labour of learning to the free reproduction of capital. We see the naturalisation of overwork as a characteristic of formal subsumption across many sectors, and argue that it intensifies into a state of normalised anxiety under real subsumption. Critical to this transition is the depletion of agency and the loss of autonomy under increasingly mechanistic conditions of policy compliance. The result is that academic labour both mimics robotic navigation through a managed sequence of small tasks, and at the same time returns energy to capital through the continuous generation of a hyperactive form of anxiety that can never hope to stabilise at rest. This has the disastrous effect of bleaching scholarly work of its creativity, and it is by these means that the human limits of the academic worker are continuously overruled.

Capitalism is the daily repeated violent separation of the object from the subject, the daily snatching of the object-creation-subject from the subject-creator-producer, the daily seizure from the subject not only of her creation by of her act of creation, her creativity, her subjectivity, her humanity. (Clarke, 2002, 35)

Responses to these losses cycle through efforts at resistance or adjustment. Such cycles inform responses that include defending what is being lost or repurposed, for instance in campaigns for the defence of the university; pushing back against subsumption, for instance through student occupations; and refusing the logic of subsumption through the definition of new forms of co-operative higher education. These efforts at collective refusal recognise that there is no outside the totality of social reproduction inside capital, but assert that refusal is the basis for:

the construction of an educational practice that expands human capacities in order to enable people to intervene in the formation of their own subjectivities and to be able to exercise power in the interest of transforming the ideological and material conditions of domination into social practices that promote social empowerment and demonstrate possibilities. (Giroux, 2005, 166)

A reinvigorated educational practice of the kind that Giroux imagines here must consider how best to reveal the conditions of real subsumption to those whose identities have been co-opted by its application.

Crucially, this requires that spaces and times (or space-times) are opened up inside which anxieties about status, identity and performance can be externalised and subjected to compassionate analysis. Given that the depletion of both agency and creativity under real subsumption is corrosive to solidarity among students and their academic colleagues, then reconnecting to processes of the social world outside higher education is fundamental to the rebuilding of solidarity. Such rethinking demands democratic and participatory alternatives through which both the curriculum and the assessments that validate it are negotiated, and the metrics that represent its value are creatively and collectively redesigned or refused.

This is a daunting proposition, given the multiple investments of capital in constraining risk at every stage of the higher education process. Even as academics search for ways to build cooperative educational communities, the UK Government is attempting to re-frame the struggle between the material, productive forces of society and the existing relations of production, through its productivity plan (HM Treasury, 2015), and its HE Green Paper (DBIS, 2015). These policy interventions centre productivity and intensified work on an ideological terrain that situates our means of reproducing society or our social relationships solely through work. The focus in these documents on the proposed teaching excellence framework is therefore a critical moment of real subsumption that intensifies academic activities, in terms of how curricula are structured and delivered, and how they are monitored. This is positioned around teaching intensity, as a moment of the transition between, first, absolute surplus value and overwork, and second, relative surplus value and anxiety.

The stakes for capital are high: the dissolution of higher education as a coercive space-time re-forged inside-and-against student-debt, impact and research excellence, and employability and entrepreneurship threatens not only business interests in higher education itself, but proposes to unsettle the orderly generation of innovations that are championed for their role in increasing productivity across the economy. This is amplified by capital and labour flows between or across sectors, so that new associations of capitals or businesses emerge, and so that human capital might be reallocated and intensified. To challenge the logic that higher education exists primarily as an engine of nationally competitive productivity requires that we rethink the consensus shaping the civil society of higher education in the service of capital, and advocate forcefully for the redirection of its energies to the collaborative development of human flourishing. This may take the form of workers' enquiry (Pitts, 2007; Woodcock, 2007) through which overcoming capitalism can be seen as entailing a fundamental transformation of production itself, with labour as the point of departure.

How is this to be done, in these troubling and often exhausting conditions? Neary (2011) draws on Vygotsky's belief in the revolutionary nature of teaching, where it emerges from inside the student as a social being. Teaching becomes radical where the social context of the curriculum is arranged by the teacher so that the student teaches herself. This recuperates energy from the real subsumption of the teacher's labour, and from the student's subsumption inside a given teaching environment. This recuperation hints at the creation of a person able to organise her own life as a pedagogic project. This potential project for the recovery of agency refuses anxiety and reinstates the value of creative intervention against the revolutionary accelerations of capital. As Neary argues, this requires a vigilant and purposeful faith in the possibility of future change:

the future is not the result of naturally upturning economic cycles, nor the structural contradictions of capitalism, but is made by the possibility and necessity of progressive social transformation through practical action, i.e., class struggle. (Neary, 2011, 3)

This is not to say that by renewing conditions of agency, autonomy, and creativity as the basis and direction of inquiry, all anxiety will be removed. Nevertheless, the security of a concrete identity in the present enables us to forgive ourselves the need for reinvention in the future. It enables us to respond authentically to externally-imposed performance management, and to step beyond the fears that emerge from another's *power-over* us. In moving beyond the subsumption of academic life, the project of abolishing higher education as it is currently defined becomes a profoundly political moment. This project must be a robust and practical one; it must imagine itself capable of resuming the governance and

regulation of higher education as a fundamentally public social formation and as a co-operative endeavour (Neary and Winn, 2015). This reflects Marx's (1866) idea that:

We acknowledge the co-operative movement as one of the transforming forces of the present society based upon class antagonism. Its great merit is to practically show, that the present pauperising, and despotic system of the *subordination of labour* to capital can be superseded by the republican and beneficent system of *the association of free and equal producers*.

To Marx, the political practice of co-operative production confronts and undermines subsumption, and demands 'the abolition of private property and of labour itself'. This is not a piecemeal or solitary project, but one that demands the creation of alternative networks of solidarity and purpose.

This is not possible without the community. Only within the community has each individual the means of cultivating his gifts in all directions; hence personal freedom becomes possible only within the community. (Marx and Engels, 1998, 86)

This invitation to imagine new forms of community that might invest differently in education critiques subsumption from the perspective of those who are excluded. Educators might then ask, where are the curriculum spaces inside formal higher education that enable education as the practice of freedom, when the only freedom available is increasingly that of the labour-market? (bell hooks, 1994)

We conclude with a practical example of such a narrative that is emerging from inside: the Dismantling the Master's House project (DTMH, 2015), which asks: *why is my curriculum white?* This work is rooted inside specific higher education institutions, and seeks to analyse the everyday and on-going colonial legacies of the governance and forms of higher education, including its reproduction in hierarchies of power and the curriculum, in order to point towards alternatives that offer justice and peace. The work is conducted practically through a focus on the past, present and future of the University, with a focus on militant research: in the past, which openly acknowledges intellectual work on eugenics, and publicly commits to re-researching race, and, more importantly, racism; in the present, in generating alternative perspectives on issues like 'why isn't my Professor Black?'; and in the future, by liberating the curriculum through a critical and radical 'cross-disciplinary and intersectional approach to racialisation'. Uncovering domination and subordination enables an alternative form of legitimacy to be described that elaborates and refuses the subsumption of specific narratives.

The curriculum is white because it reflects the underlying logic of colonialism, which believes the colonised do not own anything – not even their own experiences. The role of the colonised in knowledge production mirrored their role in economic production, where their resources were to provide raw materials that could then be consumed in the west... Implicit in the white curriculum is irrefutable evidence of white superiority as a matter of truth and objectivity, while crafting a world-view that judges anything that it could define as 'non-white' or 'other' as inferior. ('Why is my Curriculum White?' collective, 2015.)

Explorations of this kind, rooted in the organising principles of the curriculum, ask educators to consider how all instances of their curriculum similarly reproduce or refuse the on-going colonisation of education by capital. This analysis deconstructs and then detonates the structures of HE by refusing the proposition that higher education exists to serve the labour market through the supply of work-ready graduates, all the while stimulating the economy through the generation of debt that assures and disciplines economic participation into the future.

The narratives of marginalised voices from inside-and-outside higher education have both the urgency and the capacity to enable new forms of refusal to emerge. Crucial to their success is the recuperation of their autonomy in terms of the governance of the University, the radical or militant nature of its research, scholarship and teaching, and academic labour's ability to challenge the property regimes that enclose it. We must then question whether these new, social forms of autonomy, rooted in a reclaiming of the general intellect, are possible, and whether such solidarity will address the crisis of overwork and anxiety. The platforms that now make possible large-scale co-operative approaches to curriculum production and

circulation (Zibechi, 2012) are central, as is the need to understand how the contemporary network can best fulfil the expectations of the worker community.

It is our view that exposing the processes of subsumption as they have redesigned higher education reveals an alternative to the current crisis of anxiety. The process of continuously generating community from networked collective action is achievable, and it offers workers across higher education a means to refuse and extend beyond the management of their own alienation, and by these means to recover and fully experience the cultivation of all of their gifts, in all directions.

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