

Paul Warmington

From 'activity' to 'labour': commodification, labour- power and contradiction in Engeström's activity theory

Summary

Engeström's (1987, 1999) innovations in cultural-historical activity theory emphasise the role of *contradictions* in analysing and transforming learning in practice. This paper considers some of the problems and possibilities contained in his analytical understanding of contradictions, in relation to activity and to what he terms 'expansive learning' (Engeström, 2001, 2004, 2007). In doing so, it builds upon Engeström's stated concern with theorising activities 'in capitalism'. Its goal is to problematise the underlying practical definition of contradictions and the claims made for his 'contradiction-driven' analysis of work practices as a platform for transformation. This paper suggests that the definition of contradictions that underpins Engeström's notions of 'expansive' learning and his 'developmental work research' methodology is restrictive because it underplays the wider social contradictions and antagonisms inherent in the *commodification of labour-power*. As such, while Engeström's take on activity theory offers a valuable approach to reforming configurations of labour within the bounds of capitalist efficiency, its engagement with capitalism's internal contradictions is uneven and, therefore, its claims to produce transformative, expansive learning are heavily qualified. The framework of this argument is provided by Postone's (1996) reading of Marx's *Capital* and *Grundrisse* as social theories of labour within capitalism and the extensive analyses of the social reproduction of labour-power developed by Rikowski (1999, 2000a, 2000b, 2002a, 2002b), Allman *et al.* (2000) and Dinerstein and Neary (2002). The paper ends with a consideration of the practical research possibilities emanating from its

call to ground activity theory and its concern with contradictions in a sophisticated understanding of labour-power theory. It draws upon the UK-based *Learning in and for Interagency Working Project's* (2004-2008) intervention research in multiprofessional children's service settings. It discusses the project's rethinking of the notion of contradictions, the need to understand the division of labour as a tool in the social production of labour-power and the sense in which historical shifts in the ways that institutions organise collective labour-power make visible the social production of labour-power as an object of activity.

1 Introduction: Activity, labour and commodification

In outlining the principles and successive generations of activity theory, Engeström (2001, p.135) emphasises the 'idea of internal contradictions as the driving force of change and development in activity systems'. Drawing upon Il'enkov (1977, 1982), he (2001, p.135) underlines contradictions as 'a guiding principle of empirical research'. He proceeds to describe "the central role of contradictions as sources of change and development":

“Contradictions are not the same as problems or conflicts. Contradictions are historically accumulating structural tensions within and between activity systems. The primary contradiction of activities within capitalism is that between the use and exchange value of commodities. This primary contradiction pervades all elements of our activity systems.” (Engeström, 2001, p.137)

Activity theorists should, of course, also note that in Marx’s writings “activity” and “labour” are used more or less synonymously (Jones, 2003). Despite tendencies elsewhere to depict activity theory’s Marxist derivations as atavistic (Jonassen 2000; cf. Agayev, 2003), Engeström has continued to foreground Marx’s key categories of “contradictions”, “commodities”, “use-value” and “exchange-value”. He defines the ‘primary inner contradiction’ of use-value and exchange-value as existing within ‘*each constituent component of the central activity*’ (CATDWR, 2004, italics added). In offering explanation of the contradiction between use- and exchange-value, he customarily invokes Leont’ev’s example of a medical practitioner’s work:

“The primary contradiction can be found by focusing on any of the elements of the doctor’s work activity. For example, instruments of this work include a tremendous variety of medicaments and drugs. But they are not just useful for healing—they are above all commodities with prices, manufactured for a market, advertised and sold for profit.” (Leont’ev, 1981, p.255)

The usage of these categories to explain the role of contradictions in activity theory raises a series of salient issues. Firstly, there seems to be a tendency in the literature on work-related research to blur distinctions between logical contradictions (arising out of lack-of-fit in local work practices) and dialectical contradictions (those inherent in capitalism’s commodification of labour) (Warmington *et al.*, 2004; Warmington 2005). Secondly, does Engeström’s activity theory equate the ‘reso-

lution’ of contradictions only with successfully reconfiguring labour in the interests of (capitalist) workplace efficiency? Thirdly, in what sense might use-value and exchange-value be said to exist *within each component* of an activity system? Leont’ev’s medicinal example provides a clear-cut example of the double use- and exchange- form of a commodity, as described at the outset of *Capital* (Marx, 1883/1976, pp.125-177). However, while it is easy to see how this “double nature” might exist, for instance, in the object or outcome of an activity (or in the form of certain tools), it is less clear how use- and exchange- value might be present in the other components of an activity system as defined by Engeström, such as “community”, “rules” or “subject”. In what sense might nodes such as “subject”, “rules” or “community” be said to be commodified?

This paper attempts to expand the notion of contradictions and commodification contained within Engeström’s depiction of activity systems. In doing so, it returns to the starting points from which Marx (1883/1976, 1858/1973) develops his critical theory of activities in capitalism: the concepts of labour and the commodity. For Postone (1996, p.7) the limitation of ‘traditional’ Marxist theory lies in its “transhistorical conception of labour”, wherein:

“Marx’s category of labour is understood in terms of a goal directed social activity that mediates between humans and nature, creating specific products in order to satisfy determinate human needs. Labor, so understood, is considered to lie at the heart of all social life.” (Postone, 1996, pp.7-8)

Postone (1996) argues that this conception of labour, which resembles the definition of “activity” customarily proffered in activity theory literature, constitutes a categorical error, in that it generalises features of labour that Marx attributes specifically to labour in capitalism (or

“activity” in capitalism). As a consequence, the tendency of traditional Marxist theory has been to develop a critique of capitalism from the standpoint of labour, emphasising forms of oppression and exploitation. In contrast, Postone’s (1996) claim is that Marx’s mature critical theory constitutes a critique of *labour within capitalism*: that is, labour within a commodity-determined society. Orthodox Marxism presupposes a contradiction between the elements of the form of social life that is capitalism (for instance, the market, private ownership) and the social sphere constituted by labour. For Postone (1996), however, labour in capitalism is the essential structure of capitalism. He argues, therefore, that what Marx offers is not simply a theory of capitalist exploitation but a critical theory of modernity itself as a commodity-determined social universe, sinewed with contradictions generated by value-creating activity, the drive to create value through labour.

Thus, the consideration of activity in capitalism must begin from the understanding that ‘activity in capitalism’ equates to ‘activity *as* capitalism’. In the world of work-related learning, of learning in practice, activity/labour is the fabric of capitalism’s social universe. Implicit in this understanding is the conception of capital not as a ‘thing’ but as a social relationship, a social substance. In capital’s social universe, labour and its products become forms of social mediation. The position of this paper is that, within any activity system, the primary contradiction resides not in the use- and exchange-value of general commodities (such as the doctor’s medicine) that may be utilised as tools or produced as outcomes but in what Marx (1883/1976) termed the “other great class of commodity”: *labour-power* (cf. Rikowski, 2000a). This has implications for the practical application of activity theory in work-related research, since it suggests that, regardless of the specific, momentary object of a particular activity (such as the develop-

ment of specific services, goods or practices), the ‘object’ of an activity system is also the expansion of labour-power, or rather labour-power *potential*.

By analysing activity systems as systems of social reproduction of labour-power, the perennial thorn in the side of research into work-related learning is also addressed: the fact that the primary purpose of organisations is the production and maintenance of goods and services, rather than learning *per se* (cf. Young, 2001). While learning may not, for employers and managers, be the principal intended outcome of organisational activity, it may be argued that raising the quality of labour-power is an intended outcome; indeed raising the quality of organisational labour-power potential is, in one sense, a definition of the ‘expansion’ of learning in practice that Engeström (1987, 1999) promotes. Explicit attention should, therefore, be given to the ‘intentional’ place of the social production of labour-power within activity systems and to the accompanying social antagonisms. In sum, this paper comprises a melding of emergent Marxist theories of labour-power with cultural-historical activity theory; this is a conceptual and methodological position which, I argue, has the potential to renew dialectical thinking and self-critique within activity theory.

2 Development

2.1 Labour-power:

a theoretical framework

“The simple elements of the labour processes are (1) purposeful activity, that is work itself, (2) the object on which that work is performed, and (3) the instruments of that work.” (Marx 1883/1976, p. 284)

Activity theory is predicated on a restatement of Marx’s ‘transhistorical’ definition of labour. Engeström (1987, 2001) outlines the genealogy of activity theory via the expansion of the notion of activity systems. The first generation

of activity theory drew upon Vygotsky's (1978, 1986) concept of mediation between subject, tool (artefact) and object (cf. Veresov's, 1999, discussion of the evolution of the concept of mediation in Vygotsky's work). Vygotsky's 'activity theory' is, in fact, not so much a theory as an analytical framework predicated upon Marx's dialectical materialist concept of the symbiosis between activity and consciousness. Activity and learning are taken as mutually dependent and the system of object-orientated, tool-mediated activity becomes the focus of analysis (cf. Jonassen, 2000). In order to progress the development of activity theory, Engeström (1987, 1999) has pursued the examination of systems of activity at the level of the collective. This expansion of the basic labour process triad explicitly represents the activity system as a social relationship—a social universe—through the incorporation of the elements of "community", "rules" and "division of labour". Crucially, Engeström's model draws upon Il'enkov (1977, 1982) to foreground *contradictions* within activity systems (within and between components) as the driving force of change and development. This depiction of activity underpins Engeström's (1987, 1999) notion of "expansive learning": the form of systemic reflection that he promotes as a driver of radical, transformative learning in practice. Engeström (1987, 1999) argues that activity systems move through relatively long cycles of qualitative transformations. As the contradictions of an activity system are aggravated, some individual participants begin to question and to deviate from its established norms. In some cases, this escalates into collaborative envisioning and a deliberate collective change effort. An expansive transformation is accomplished when the object and motive of the activity are re-conceptualised to embrace a radically wider horizon of possibilities than in the previous mode of the activity.

Engeström's representation of activity in terms of the six constituent elements of "object", "tool", "subject", "rules", "community" and "division of labour" has been widely appropriated. However, Roth *et al.* (2005) caution that:

"The downside of heuristic representations is that they tend to reify the entities they have set in relation. They appear to suggest an interaction of different entities whereby each can be meaningfully understood in isolation. To underscore the mutually constitutive relation of pairs of entities, the notion of transaction is more appropriate." (Roth *et al.*, 2005, p.6)

The principal definition of system 'contradictions' is rooted in a dialectical logic that Roth *et al.* suggest, is too often relinquished. For example:

"From a systemic perspective, an individual might be viewed as an element that possesses specific abilities or properties in her corporeal body and therefore takes a certain position such as margin or center in a given structure. But to the same individual, systemic entities such as tools, rules or division of labor appear as a set of salient possibilities available to her action. The systemic elements unfold through her actions, her acting body." (Roth *et al.*, 2005, p.7)

Thus, systemic analysis of activity should be grounded in a clear grasp of interdependence and social mediation.

Roth's *et al.* comments on Engeström highlight three important points: firstly, the dialectical, mutually constituting form of contradictions; secondly, the interdependence of what may appear to be distinct systemic entities within the activity system; thirdly, the notion that, systemically, actors may be simultaneously marginal and central and that the systemic elements of the activity system "unfold through ... actions ... (the) acting body" (*ibid.*, p. 7).

Postone's (1996, p.148) criticism of orthodox Marxism is that the concepts of "labour"

(or *activity*) and “commodification” are routinely treated “too narrowly as political-economic categories” that presuppose the social interdependence that Marx is, in fact, attempting to explain. Postone (1996) characterises Marx’s critical theory as a critique of a historically specific social form, which is constituted by labour in capitalism. This social formation comprises “a new sort of interdependence”, in which social relations are constituted by labour, by activity, but in which “social interrelatedness ... cannot be grasped adequately in terms of the overtly social relations between people” (Postone, 1996, p.153). This new form of interdependence is the social formation implied in Leont’ev’s “primary contradiction”. The drug commodities to which Leont’ev refers exist in double form as use- and exchange-values. In a commodity-determined society producers do not, by and large, subsist on what they themselves produce. The medicines that the chemist produces are her ‘products’, the objectification of her labour, of her activity within capitalism. The medicines are useful for healing and will be purchased as a use-value by others who have momentary need of the healing quality. The money exchanged for these products will enable the chemist, in turn, to purchase the products of others’ concrete labour. In other words, the medicine commodity has been sold by the chemist as a means of exchange, a means of enabling the medicine producer to acquire the objectified labour of car, clothes and computer producers. Postone (1996) summarises Marx:

“In commodity-determined society, the objectifications of one’s labour are means by which goods produced by others are acquired; one labours in order to acquire other products ... This signifies that one’s labor *has a dual function*: On the one hand, it is a specific sort of labour that produces particular goods for others, yet, on the other hand, labor *independent of its specific content*, serves the producer as the means by which the products of others are acquired ... There is no intrinsic relation

between the specific nature of the labor expended and the specific nature of the product acquired by means of that labor.” (Postone, 1996, p.149)

In social formations that are not dominated by commodity production, the distribution of labour and its products is effected by diverse ties, customs and power relations. By contrast, in commodity-determined society labour serves as the means by which people acquire the labour products of others. Therefore, labour takes over the distributionary function which, in non-capitalist societies is performed by overt social relations (such as kinship, custom, tribute). In capitalism labour performs both its ‘concrete’ social function as creator of goods but also acts as an ‘abstract’ mechanism of exchange and distribution:

“Hence rather than being mediated by overtly or ‘recognizably’ social relations, commodity determined labor is mediated by a set of structures that ... it itself constitutes. Labor and its products mediate themselves in capitalism; they are self-mediating socially.” (Postone, 1996, p.150)

Thus, when we speak about the use-values and exchange values created by labour in capitalism, we are not referring to a material ‘thing’. It is true that value is invested in material commodities but, as Neary and Rikowski (2000), Rikowski (2000a, 2002a, 2002b) and Dinerstein (1997) have asserted, value is, in actuality, a *social substance*, the social energy that, in its constant creation and motion, forms the fabric of the social universe; the social universe is capital (Rikowski, 2000a; 2002a/b, Allman *et al*, 2000). Once value created by labour is perceived as the social fabric, social energy, new light is thrown on to Engeström’s references to the contradictions that “pervade *all elements* of our activity systems” (Engeström, 2001, p.137, italics added). The social meaning of value-creating labour, as Vann (2006) has argued, is not only constructed with ‘re-

course to the invocation of qualities such as the magnitude of monetary values'. This paper argues that; in post-bureaucratic service settings value creation may, for instance, take the form of maximising 'responsiveness', 'flexibility', 'hybridity' or 'multiprofessionalism'.

If we are to take seriously Engeström's aim of analysing activities in capitalism, we must examine activity systems as aspects of capitalist social relations. Therefore, elements such as "rules", "community" and "division of labour" should not simply be treated as if they represented specific, concrete social relations binding actors to one another (although they may serve as useful markers of the antagonisms that exist within activity in capitalism). Activity systems are sites in which, to use Dinerstein's (1997, p. 83) phrase, "social energy is permanently being transformed". Therefore, they should not only be analysed as sites of production of 'concrete' commodities, whether these be machines or interagency services or health care plans, but also as producing, maintaining and intensifying the abstract, unfinished commodity that underlies "every aspect of social life": *labour-power*. The contradictions existing within this "other class" of commodity have a central role within activity systems.

Dialectical contradictions are generated by internal relationships between mutually constraining elements). Think of the example of trade unions and industries. On the one hand, they exist in opposition to each other (in contradiction); on the other hand, the shape of each is moulded by the other (an internal relationship). In principle they are distinct; in practice they are inseparable. In *Dialectic: the pulse of freedom* Bhaskar (1993) asserts that dialectical contradictions are a particular aspect of dialectical connections (although not all dialectical connections are contradictory nor are dialectical contradictions identical to logical contradictions). Bhaskar (1993, p.56) emphasises that:

"The concept of contradiction may be used as a metaphor ...for any kind of dissonance, strain or tension. However, it first assumes a clear meaning in the case of human action, which may then be extended to goal orientated action, and thence ... to any action at all. Here it specifies a situation which permits the satisfaction of one end or more generally result at the expense of another: that is a *bind* or constraint."

This asymmetry also constitutes a potential for change and development, which becomes apparent in the context of Bhaskar's (1993) explication of his dialectical method. In mapping out his understanding of dialectics, Bhaskar (1993) is at pains to distinguish himself from Hegel by taking "absence" – things which are not, things which are wanting or lacking – as the basis of his dialectical method. He argues that without absences there is no potential for error, for change or for emancipation. Thus in any internal contradiction, there must also be an internal "complicity", a liability to change (Bhaskar, 1993, p.57). Bhaskar's (1993) dialectical method begins with an absence, a want, which is then remedied (the absencing of the original absence). However, the remedy will in turn run into obstacles – obstacles which it strives to overcome. In this way dialectics, contradictions and change are bound together. As with Engeström (but, arguably, unlike Marx), Bhaskar argues that contradictions set change in motion but do not, in themselves, ensure a better alternative. For Bhaskar, the work of ensuring a better alternative requires an ethical critique of capitalism, not merely a technical critique of practices present within (labour in) capitalism.

In activity theory as it stands, the ethical critique of labour in capitalism is tremulous. In capitalism's social universe a "violent dialectic" exists between labour and capital (Allman *et al.*, 2000, p.10). Management strategies seek to intensify work, in order to maximise value; in turn, workers demand wage increases or employ evasive performativity strategies. In

Engeström's conceptualisation this violence is, however, suppressed. Although Engeström (2001, p.137) refers to contradictions as "historically accumulating tensions", in his work in organisational settings, his historical accumulation appears to be located in the site of local, technical practices, rather than in the contradictions inherent in social class relations.

In terms of social class relations, the "inner contradiction" of use- and exchange-value to which Engeström (1987, 2001) refers is a key unit of analysis because the relation between use- and exchange-value is the necessary transformation that labour undergoes as it enters the capitalist labour process. In turn, "the activity of our labour (in conjunction with means of production and raw materials) rests upon our *capacity* to labour, our labour-power" (Rikowski, 2000a). Analysis of *labour-power* is, therefore, integral to the analysis of activities in capitalism. Labour-power is

"the merely abstract form, the mere possibility of value-positing activity, which exists only as a capacity, as a resource in the bodiliness of the worker. But when it is made into a real activity through contact with capital—it cannot do this by itself, since it is without object—then it becomes a really value-positing, productive activity." (Marx, 1858/1973).

In *Capital* (1883/1976) and its precursor, *Grundrisse* (1858/1973), Marx predicates the categories of use- and exchange-value upon an analysis of the commodity form. As Rikowski (2000a) emphasises, Marx posits *two* categories of commodity: the "general class of commodities", of which Leont'ev's medicines would be an example and the "other great class of commodity", which he terms *labour-power*. Marx's well known definition of labour-power is:

"the aggregate of those mental and physical capabilities existing in a human being, which he ex-

ercises whenever he produces a use-value of any description' (Marx, 1883/1976, p.270)

Labour-power should not be taken to refer simply to the *actual* labour that is expended directly in order to produce particular commodities but to the *potential* to labour embodied in individuals and collectives. Labour-power is a distinct and unique class of commodity because it is the one commodity that creates more value than is required in its maintenance. It includes an array of qualities: not just skills and knowledge but also attitudes, motivation and self-presentation (Rikowski, 1999, 2000a, 2000b). Think, in particular, of how the definition of labour-power might include the ability to form those inter-subjective resources currently much discussed by socio-cultural theorists: "cognitive trails", "confidence pathways", "trust cohorts" (cf. Cussins, 1992; cf. Knorr-Cetina, 1999).

Labour-power is a virtual entity until workers direct their myriad capabilities to the *process* of labour. At the point at which an individual bakes a loaf of bread, weaves a blanket or designs a computer programme, that potential becomes *actual* labour (that is, the individual's labour is now activated within the labour process). Marx (1883/1976) argues that actual labour has both use- and exchange-value. The labour expended in blanket-weaving or computer programme design is clearly qualitatively different, since they produce different objects; they have different use-values. Yet since labourers in capitalism are dependent upon commodity exchange (via money, of course, rather than a direct relationship), then Marx argues that they must possess something in common, something exchangeable. For Marx, the commonality of commodities resides in abstract labour: the labour time invested in the production of a commodity ("socially average labour time" is qualified by factors such as available technology and the skill of the labourer). The labour-time so-

cially necessary to produce an article under the normal conditions of production, and with the average amount of skill is the measurement of value (Marx, 1976/ 1883). This *value* (human labour in the abstract) is the basis of exchange in capitalism; abstract labour enables a dozen eggs to be worth “the same as” three pints of milk or a watch to be worth “the same as” a pair of shoes.

However, Rikowski (1999, 2002a, 2002b) maintains that just as actual labour has use- and exchange-value, so does labour-power. As a use-value, labour-power (the capacity of individuals to labour) is qualitative; a prospective worker has qualitatively specific skills and dispositions (obviously these are transferable to varying degrees: a brain surgeon might well be able to turn her labour-power to lecturing or litter-collection but not necessarily to being a concert cellist). As an exchange-value, however, labour-power is quantitative. Thus a part-time teacher’s salary might be equal to (“the same as”) that of a full-time security guard. At a college that employs them the same proportion of the budget might equally be spent on either one part-time teacher or one full-time security guard or two kitchen assistants; to budget-holders at the college these quantities of their labour-power are equal. Employers appear to buy labour but what they actually purchase is labour-power, the capacity of the employee to labour.

Labour in capitalism, Rikowski (2002b) argues, takes three expressions. Firstly, labour-power has a “concrete” aspect related to the potential set of skills and attributes embodied in an individual. Two apparently equally qualified employees on the same salary might be differentiated according to the finest, ostensibly very ‘personal’, distinctions between them (one’s interpersonal skills, another’s knowledge of a particular locality, another’s supportiveness to colleagues). Exchange value might render the two ‘equal’; their concrete labour-power attributes reveal their individuality.

Secondly, the ‘subjective’ aspect is “labour-power in its individual and will determined moment” (Rikowski, 2002b). In other words, the subjective aspect of labour-power lies in the labourer’s decision to activate her labour-power at a particular moment to a particular end. In this sense the labourer’s will is also incorporated into labour-power but is never completely subordinated; in most instances labourers have some degree of control over how effectively or enthusiastically they perform. Thirdly, labour in capital is expressed through its collective aspect:

“The collective aspect of labour-power reflects the fact that in capitalist society labour-powers are *co-ordinated* (through *co-operation* and *division of labour*) ... This is where the *quality* of *co-operation* between labour-powers is brought to the fore. Such co-operation forms a significant collective force within the labour process, a force that capital and its representatives seek to control and channel into the value form of labour” (Rikowski, 2002b, p.15, italics added).

Rikowski (1999, 2002a, 2002b) argues that education and training are increasingly being reduced to forms of labour-power production (witness the proliferation of crude human capital theory and the emphasis that recruitment processes place upon candidates’ personal qualities and attitudes). With regard to Engeström and his peers, it is the *collective* aspect of labour-power that is the focus of current applications of activity theory to learning in practice, learning in the workplace. However, the extent to which these systemic analyses of workplace activity acknowledge the antagonistic nature of labour in capital and the contradictions that flow not only through systems but through the labour-powers embodied in actors (in human-capital) is uncertain.

As Allman *et al.* (2000), Neary and Rikowski (2000), Rikowski (2002a/b) stress, labour-power is expansive in a way that general commodities are not because it has the

potential to create value. Labour-power potential is also unstable; it is never 'finished'; its quality and quantity can be raised through education and training, through technological advances and through types of reculturation that make attitudes, motivations or dispositions their objects. These comprise what Rikowski (1999, 2000a, 2000b) terms the social production of labour-power. Labour-power is also, of course, 'informally' developed through labour itself (and 'learning company' strategies attempt to formalise this process). As an 'unfinished' commodity, in terms of the *quality* of labour-power attributes

“there is no logical ceiling, and the drive to enhance labour-power ... is expressed and experienced as an infinite social drive.” (Rikowski 2002b, p.17)

Being logically without limit, labour-power is constantly in the process of what Engeström calls “expansive transformation” and this produces and is produced by new forms of work activity. However, in practice, the drive to intensify labour-power is, of course, limited by the “*clash of contradictory drives*” (Rikowski 1999, p.79). Engeström (1987, 2001, 2007) has extensively considered how contradictions between tool and object or rules and object or between interacting activity systems limit the development of activities. However, the contradictions between labour and those representing capital (organising and managing labour) are only addressed tentatively in Engeström's work. This is apparent in his conflation of horizontal divisions of labour (divisions according to task, role or professional expertise) and vertical divisions of labour (those between the representatives of capital and staff). This ambiguity, or reticence, to address wider social antagonisms present in activity systems is also noted in Langemeyer's (2006) querying of Engeström's seeming tendency to depict activity systems as self-regulating 'subjects' (cf. Avis, 2007). The potential for activity theory

intervention research to address contradictions generated by vertical divisions of labour (that is, between labour and those responsible for managing labour) is discussed in Section 3 of this paper.

Engeström's conceptual development of activity theory is rooted in a concern with the *collective* aspect of labour-power: in particular, the co-operation between labour-powers within activity systems and between related activity systems (Daniels and Warmington, 2007). This concern with the organisation of collective labour-power is made explicit in several strands of Engeström's research, in particular the conceptualisation of “knotworking” (Engeström *et al.*, 1999) and “co-configuration” (Engeström, 2004; cf. Victor and Boynton, 1998). Engeström *et al.* (1999) locate knotworking as a type of work configuration emergent in post-bureaucratic work settings in which expertise and professional (and professional-client) interactions are radically distributed and models of stable 'teams' no longer apply. In such work settings there is a rapid turnover of staff and continual re-configurations of groups, communications and expertise. It is

“work that requires *active construction* of constantly changing combinations of people and artefacts over lengthy trajectories of time and widely distributed in space.” (Engeström *et al.*, 1999, p.345, italics added)

Engeström (2004) draws the notion of “co-configuration” from the work conducted in private sector settings by Victor and Boynton (1998). “Co-configuration” implies a form of work orientated towards the provision of intelligent, adaptive services. It is characterised by negotiated partnerships, wherein multiple agencies collaborate with users in the co-design of services or products. The consequences for the 'post-bureaucratic' organisation and management of collective

labour-power in both private and public sectors are the emergence of radically distributed ‘collectivity’ and increasing emphasis upon ‘flexible’ working and ‘improvisational’ work patterning, both by labourers and by the representatives of capital (employers, managers, human resource consultants). ‘Flexible’ work patterns constitute both a reculturing of labour, in which individual workers are accorded responsibility for their own quality control, often under the guise of having greater control over their own labour-power (cf. Avis, 2007). For instance, Harley *et al.* (2003) note that in the UK’s public service sector funding sources increasingly dictate that human service agencies

“must centre on consumer-appropriate outcomes through collaboration and co-operation, not on sequential or parallel interventions that satisfy administrative requirements ... organizational boundaries can no longer be considered the ‘limit of influence’ ... helping is no longer bound by *the limits prescribed in job descriptions*” (Harley *et al.*, 2003, p.4, italics added).

This underlines the double function of activity systems: the object of it is both to work on practice objects that will generate “consumer appropriate outcomes” *and* to reconfigure or reculture labour-power, most obviously through new rules and divisions of labour. Flexibility and the capacity for improvisation may serve “consumer appropriate outcomes” but also clearly represent a deepening of control over collective labour-power.

However, the aim of ‘transcending’ the limits prescribed in job descriptions also implies contradictions other than those between, say, division of labour and object or rules and subject. Casey (1995) discusses the blurring of roles and boundaries in emergent ‘post industrial’ work forms as tending towards the flexibility and improvisation that Engeström emphasises:

“The operator is required to be multi-skilled, aware and flexible. She must be able to understand the entire production process, so that she is able to respond to unpredictable situations ... The worker’s ability to learn and adapt becomes more important than his past training ... as work becomes more abstract, requiring flexibility and manipulability, workers experience new challenges and forms of mastery.” (Casey, 1995, p.43)

This emphasis on the worker’s ability to learn and adapt, so familiar in current employability and recruitment literature is one reminder that labour-power incorporates not only skills and knowledge but a whole range of attitudinal dispositions. It is also a reminder of the intensification of activity within capitalism, its deepening and development within its own domain. This deepening, development and intensification takes the form of expanded social production of labour-power, in part through education, training and the reorganisation of work patterns and practices. Moreover, it also points to the sense in which actors within activity systems are rendered contradictory. Within an activity, actors are configurations of labour-power attributes but they also possess “interests, desires, motives ... that run counter to the subsumption of self as labour-power” (Rikowski, 2002b, pp. 15-16).

In capitalism object-orientated activity is rendered contradictory, comprising both social production of labour-power and, at the same time, constituting aims, ideals and concerns (say, a social care team providing support and protection to ‘at risk young people’, involving families in democratic decision making) that may run counter to regimes designed to produce and manage flexible labour-power. Capitalism commodifies labour-power and, thereby, renders it contradictory as use- and exchange-value; labour and its properties flow through the corporeal body without clear demarcation between labour-power attributes and other attributes of the person (Rikowski, 2002b). The human is simultaneously marginal

and central within the activity system, simultaneously actor and resource. Thus 'human capital', the living commodity, is produced: a configuration of labour-power attributes, a living contradiction.

3. Rethinking contradictions: examples from the field

What practical possibilities does this call to ground activity theory in a real understanding of labour-power theory offer to field researchers – those who, like Engeström, are engaged in intervention research in organisations? The first implication, as this paper has argued, is the reconceptualisation of the object: the need to examine constantly the senses in which tool creation, divisions of labour and subject location constitute and are constituted by the meta-object of the social production of labour-power. The second implication, which flows from the first, requires Engeström's triangle of mediations to be pushed out of shape; division of labour must be understood and analysed as a tool in the social production of labour-power. Thus institutions and organisations in which research interventions are conducted must not simply be analysed as settings in which tools are developed; they must be understood as (institutional) tools in themselves, created and developed to work on objects. Because organisations are configurations of labour-power, they must be examined as tools, as cultural artefacts, in ways that call attention not only to contradictions within and between the nodes of momentary object-orientated activity but also to the contradictions generated by labour-power within capitalism. Like any other cultural artefact, the institutions in which subjects labour are sinewed by cultural traces. Historical shifts in the ways that institutions organise and re-organise collective labour-power make visible the social production of labour-power as an object of activity.

A brief example can be drawn from the UK-

based *Learning in and for Interagency Working Project (LIW)*, which was directed by Harry Daniels and Anne Edwards (and managed by the author of this paper) between 2004 and 2008. Its structure and activity theory derived methodology are described in detail in Edwards *et al* (2009); its tentative development of an analysis grounded in labour-power theory is discussed in Daniels and Warmington (2007). The LIW Project focused upon the learning of children's services professionals in multiagency settings in five English local authorities. It was conducted during a period of national reform in which government strategy called for more effective multiagency and multiprofessional service provision, designed to enable professionals to work across the boundaries of education, health and social care. Thus the LIW Project's research interventions, which were modelled on Engeström's (2007) applied model known as developmental work research (DWR), were conducted at a very specific moment in the historical production of children's services in the UK. For example, one of the key government documents on workforce reform in children's services stressed the need to begin:

'integrating professionals through multi-disciplinary teams responsible for identifying children at risk, and working with the child and family to ensure services are tailored to their needs.' (italics added) DfES (2003: 51)

In its local authority research sites the LIW Project entered the historical flow of the social production of labour-power in and for multiprofessional working. These local authorities' distinctive approaches to reconfiguring labour in order to develop what is often, in the UK, termed 'joined up' working generated differently inflected boundaries between the professions in each authority (Daniels and Warmington, 2007). In each local authority the governance, refinement and intensification of individual and, especially, collective

labour-power potential became the object of activity at strategic and operational level. In each authority value creation took the form of maximising the 'responsiveness', 'flexibility' and 'hybridity' of services. This was apparent in the LIW Project's interview and intervention workshop data; strategic and operational staff working in children's services reflected upon multiagency working, multiprofessional teams, movement away from traditional professional silos, the development of new forms of hybrid practice, possibilities for interprofessional training, common assessment processes and means of co-ordinating and accessing distributed expertise (Edwards *et al.*, 2009). The LIW Project's utilisation of analytic concepts such as boundary-crossing, rule-bending and distributed expertise was similarly predicated upon understandings of the reconfiguration of labour-power.

Within three of the local authority sites, where intensive research took place, ethnographic data and interview data were gathered as a precursor to a series of six DWR style workshops, conducted with key professionals in the teams or networks. Each series of six workshops was spread over a twelve month period and, in between, data from the workshops were analysed and additional visits and interviews took place. Seaside was a large local authority in south-east England. The authority had adopted a strategic, top-down approach to developing 'joined up' working in children's services. The key reconfiguration of division of labour was the formation of a set of area multiprofessional teams (MPTs). Initially, Seaside divided itself into four localities, each of which contained two MPTs. These were multiprofessional in composition, although the members of the MPT A, with which the LIW Project worked, were, prior to September 2006, drawn broadly from the education sector. In spring 2006 there was a further re-division of labour when Seaside's children's services were restructured into two localities,

with considerable reorganisation and redeployment of staff. In autumn 2006 there was an additional reconfiguration when social care staff were incorporated into the MPT A. Line management within the reconfigured MPT A was multiprofessional in character, with professionals in some cases being managed by colleagues from outside their professional categories. These strategic moves created a series of new divisions of labour, each intended to expand collective labour-power potential by enhancing the capacity for multiprofessional and/ or multiagency working, hybrid forms that involved boundary-crossing, knotworking and utilisation of distributed expertise.

In Seaside these MPT redivisions weakened the boundaries between different professions. At operational level much of the MPT staff's initial learning to do multiagency working involved learning about the expertise distributed across the new team and how to access it. This 'internal' work entailed the building of knowledge about the kinds of skills and expertise other MPT staff could offer and a confident understanding of how to access others' expertise. Accessing distributed expertise was also dependent on professionals understanding the rules within which other MPT professionals' practices were embedded. Our analysis suggested that the formation of the MPTs gave rise to new regulative discourses and new forms of legitimate practice which were not encumbered by old silo rules and tools (Daniels and Warmington, 2007). For instance, staff often described informally phoning or 'bumping into' colleagues in corridors as a way of indicating that traditional boundaries and formal referral routes were being circumvented. In an early workshop a Behaviour Support Worker, who was now a member of Seaside's MPT A, described the early internal work that expanded the MPT's operational capacity, not by increasing staffing but by intensifying dispositions towards boundary-crossing, creating new communicative tools and parallel work-

ing: in short, through the social production of labour-power:

'...first of all they needed to... to get to know each other ... and now they are actually beginning to use each other to actually help with children. And from my point of view the next stage is to actually being able to... recognise their shared skills and to be able to ... be happy to do some of the things that somebody else would do.'

Reconfiguration of formal organisational structures framed but did not, in themselves, produce these expansions in 'multiprofessional' skills and dispositions, which were produced through localised learning/ labouring. Mid-way through our intervention in Seaside MPT A was reorganised to incorporate social care staff too. When the MPT A was reconfigured it became apparent in subsequent workshop talk that distributed expertise was being renegotiated within the new MPT because the common experiences and backgrounds that had bound together education staff had been disrupted by the entry of another professional culture (social care staff), a distinct grouping of labouring subjects. Ultimately, and despite initial suspicion observed in some workshops, education and social care staff negotiated common objects and values and worked with some success at negotiating the expertise distributed across MPT A. This constituted an expansion of labour-power potential, an expansion of MPT members' capacities to work in diverse settings, across professional boundaries and respond to the precise demands of individual cases. Workshop talk suggested that old lines of control were described as being disrupted as new collaborative patterns of labouring action emerged. The LIW Team often described this as a kind of rule-bending but this rule-bending was also an expression of expanded labour-power and new labouring action being in contradiction with old, constraining organisational structures.

However, contradictions were also identified by Seaside's MPT staff between the newly reconfigured operational level and continuing adherence at the strategic level to old rules and tools. In the workshops MPT A's talk focused on 'vertical' contradictions between strategic and operational divisions of labour: lack of communication and lack of shared rules between themselves and senior managers, as illustrated in this DWR workshop exchange between Andy (an Education Welfare Officer) and the Workshop Leader (LIW):

Andy: ...(Strategic managers) have still been structured in exactly the same old education, welfare, educational psychology system and have not moved as far as the multiprofessional team integration have at the operational level. So the people who are going to be looking at development and resources have been up until now structured still in the very old system.

LIW: Right, so there are... I mean you're saying there are contradictions in the...?

Andy: Yeah, because we're dealing with very senior people who are making the overall strategy of the multiprofessional team. You've got people who are operational on the ground floor level who are working hard to move further and further towards it, and you've got one layer which somewhere is, what do they do (laughter)? They're called performance resources and development.

MPT staff acknowledged the need to take on a *pedagogic* stance in order to communicate their newly created 'multiprofessional' knowledge to strategic level. For instance, they suggested linking each MPT in the local authority to a specific member of the strategic management team. They also argued (successfully) for the LIW Team to present its summary of their

discussion of operational-strategic tensions to a meeting of mid-level managers. However, while MPT A's staff conceptualised very precisely the 'vertical' constraints on their emergent practice, they were reluctant actually to realise their pedagogic stance, given its potential to create conflict with their strategic managers (that is, to surface contradictions in the labour process between themselves and their managers).

4. Conclusion

This paper offers a polemical call for the (re) insertion of labour power theory into activity theory derived analyses of work-related learning. It makes no claim to being a definitive re-imagining of Engeström's project but it points towards theorisation of the social reproduction of labour power as a means of renewing activity theory's theoretical and methodological framework. In the contemporary sphere of 'service industries', the 'knowledge economy', 'reflexivity' and 'learning organisations', workplace activities are as much about the social production of labour-power as they are about marshalling concrete labour to produce general commodities (Warmington, 2005). This 'doubled' object makes it imperative that empirical research into learning in practice should not operate with an atrophied notion of 'contradictions', one that relinquishes broader notions of social antagonism, power and control. The language of transformation pervades Engeström's work but, as Avis (2007) points out, the relationship between this verbal radicalism and progressive outcomes is rendered ambiguous. It is restricted by the downplaying of wider social antagonisms in favour of a truncated, technicist notion of contradictions (one focused on a concern with 'lack of fit' in the elements of local work practices). The penultimate section of this paper, in its reference to the *Learning in and for Interagency Working Project*, offers a concrete

illustration of how intervention research derived from Engeström's methodology can, at an organisational level, produce work (both in the field and in subsequent analysis) that acknowledges the wider social antagonisms in which organisational practice is embedded: in this case, between labour and those managing labour. Such research outcomes are made possible by a more rigorous grounding of activity theory derived research in labour-power theory and by an insistence, in the research site, upon understanding the organisation itself (that is, both the vertical and the horizontal division of labour) as a tool, as a cultural artefact.

It is worth ending with a note on 'expansiveness'. In her work on critical race theory Crenshaw (1988) defines two visions of equality present in US anti-discrimination law. The 'expansive' view stresses equality as a *result*: it examines the historical formations that have generated social inequalities and looks to real social consequences. The 'restrictive' view regards equality as a system adaptation process and looks to prevent future wrongdoing in localised settings, rather than redressing the accumulating structural tensions that have generated unequal social relations. It could be argued that while Engeström's innovations in activity theory offer progressive possibilities, in practice they rest on the cusp between restrictive and expansive notions of contradictions. The danger is that, in current activity theory, Marxist notions of contradictions in the labour process become domesticated in the service of 'soft' system adaptation. Notions of expansive learning are inextricable from the social production of labour-power because labour-power is expansive, unstable, never 'finished'. If 'practice' is to be a site for radical transformation, then labour must be conceptualised as fundamentally contradictory: beset by the antagonism between capital's drive to intensify labour power potential and labour's drive against its commodification.

References

- Allman, P., McLaren, P. and Rikowski, G. (2000) *After the Box People*, (London, Institute of Education Policy Studies).
- Avis, J. (2007) Engeström's Activity Theory: a conservative praxis? Paper presented to the Centre for Sociocultural and Activity Theory Research Seminar, University of Birmingham, UK.
- Bhaskar, R. (1993) *Dialectic: the pulse of freedom* (London: Verso).
- Casey, C. (1995) *Work, Self and Society after Industrialism* (London, Routledge).
- CENTER FOR ACTIVITY THEORY AND DEVELOPMENTAL WORK RESEARCH (CATDWR) (2004) *The Activity System*, <http://www.edu.helsinki.fi/activity/pages/chatand-dwr/activitysystem/> Accessed June 2005.
- Crenshaw, K. (1988) Race, reform and retrenchment: transformation and legitimation in anti-discrimination law, *Harvard Law Review*, 101(7), pp.1331-1387.
- Cussins, A. (1992) Content, embodiment and objectivity: the theory of cognitive trails, *Mind*, 101, pp.651-688.
- Daniels, H. and Warmington, P. (2007) Analysing third generation activity systems: power, contradictions and personal transformation, *Journal of Workplace Learning*, 19 (6), pp. 377 – 391.
- DEPARTMENT FOR EDUCATION AND SKILLS (2003) *Every Child Matters*, (London, DfES).
- Dinerstein, A. (1997) Marxism and Subjectivity: searching for the marvelous (prelude to a Marxist notion of action), *Common Sense*, December 1997, 22, pp.83-96.
- Dinerstein, A. & Neary, M. (Eds.) (2002) *The Labour Debate: An investigation into the theory and reality of capitalist work* (Aldershot, Ashgate).
- Edwards, A., Daniels, H., Gallagher, T., Leadbetter, J. & Warmington, P. (2009) *Improving Inter-professional Collaborations: multi-agency working for children's wellbeing* (London: Routledge).
- Engeström, Y. (1987) *Learning by Expanding: an activity-theoretical approach to developmental research* (Helsinki, Orienta-Konsultit).
- Engeström, Y. (1999) Learning by expanding: ten years later. Introduction to the German edition of Y. Engeström *Learning by Expanding* (Marburg, BdWi-Verlag).
- Engeström, Y. (2001) Expansive learning at work: toward an activity theoretical reconceptualization, *Journal of Education and Work*, vol. 14 (1), pp.133-156.
- Engeström, Y. (2004) *New forms of learning in co-configuration work*. Paper presented to the Department of Information Systems 'ICTs in the contemporary world' seminar, LSE, January 2004.
- Engeström, Y. (2007) Putting Activity Theory to Work: The Change Laboratory as an Application of Double Stimulation, in: H. Daniels, M. Cole and J.V. Wertsch (Eds.) *The Cambridge Companion to Vygotsky* (New York, Cambridge University Press), in press.
- Engeström, Y., Engeström, R. and Vähäaho, T. (1999) When the center does not hold: the importance of knotworking, in S. Chaiklin *et al* (eds.) *Activity Theory and Social Practice.*, M. Hedegaard and U. Jensen, Aarhus University Press.
- Harley, D. *et al* (2003) Interagency collaboration: reinforcing professional bridges to serve aging populations with multiple service needs, *Journal of Rehabilitation* 69(2), pp. 32-37.
- Il'enkov, E. (1977) *Dialectical Logic: Essays in its History and Theory* (Moscow, Progress).
- Il'enkov, E. (1982) *The Dialectics of the Abstract and the Concrete in Marx's 'Capital'* (Moscow, Progress).
- Jonassen, D. (2000) Revisiting activity theory as a framework for designing student-centred learning environments, in D.H. Jonassen & S.M. Land (eds.) *Theoretical foundations of learning environments* (New Jersey, Lawrence Erlbaum Associates), pp. 89-121.
- Jones, P. (2003) *Activity Theory and the Marxian Legacy*, paper presented to Marxism and Education: Renewing Dialogues Seminar, Institute of Education, London, October, 2003.
- Knorr-Certina, K. (1999) *Epistemic Cultures: how sciences make knowledge* (Cambridge Mass, Harvard University Press).
- Langemeyer, I. (2006) Contradictions in expansive learning: towards a critical analysis of

- self-dependent forms of learning in relation to contemporary socio-technical change, *Forum: Qualitative Social Research*, 7(1), <http://www.qualitative-research.net/fqs-texte/1-06/06-1-12e.htm>. Accessed July 2007.
- Leont'ev A. (1978) *Activity, consciousness, and personality* (Englewood Cliffs, Prentice Hall).
- Marx, K. (1976/ 1883) *Capital: a critique of political economy – Volume 1* (London, Penguin).
- Marx, K. (1973/ 1858) *Grundrisse* (London, Penguin).
- Neary, M. and Rikowski, G. (2000) *The Speed of Life: the significance of Karl Marx's concept of socially necessary labour-time*. A paper presented at the British Sociological Association Annual Conference 2000, University of York, 17-20th April.
- Postone, M. (1996) *Time, Labour, and Social Domination: A reinterpretation of Marx's critical theory* (Cambridge, Cambridge University Press).
- Rikowski, G. (1999) Education, Capital and the Transhuman, in: D. Hill, P. McLaren, M. Cole & G. Rikowski (Eds.) *Postmodernism in Educational Theory: Education and the Politics of Human Resistance* (London, Tufnell Press).
- Rikowski, G. (2000a) *That Other Great Class of Commodities: Repositioning Marxist Educational Theory*. A paper presented at the British Educational Research Association Conference 2000, Cardiff University, session 10.21, 9th September.
- Rikowski, G. (2000b) *Messing with the Explosive Commodity: School improvement, educational research and labour-power in the era of global capitalism*. Paper presented at the British Educational Research Association Annual Conference, Cardiff University, 7-10 September.
- Rikowski, G. (2002a) Fuel for the Living Fire: Labour-Power! In: A. Dinerstein & M. Neary (Eds.) *The Labour Debate: An investigation into the theory and reality of capitalist work* (Aldershot, Ashgate).
- Rikowski, G. (2002b) Methods for researching the social production of labour-power in capitalism, Research Seminar, University College Northampton, 7 March 2002.
- Roth, M., Hwang, S., Goulart, M. & Lee, Y. (2005) *Participation, Learning and Identity* (Berlin, International Cultural-Historical Human Sciences).
- Veresov, N. (1999). Undiscovered Vygotsky: etudes on the pre-history of cultural-historical psychology (Frankfurt, Peter Lang).
- Victor, B. & Boynton, A. (1998) *Invented here: Maximizing your organization's internal growth and profitability* (Boston, Harvard Business School Press).
- Vygotsky, L. (1978) *Mind in Society* (Cambridge, Mass, Harvard University Press).
- Vygotsky, L. (1986) *Thought and Language* (Cambridge, Mass, Massachusetts Institute of Technology Press).
- Warmington, P. (2005) From activity to labour: commodification, labour power and contradiction in activity theory, *Contradictions in Activity Symposium* (In *1st International Congress of the ISCAR*, Seville, September 2005).
- Warmington, P. with Daniels, H., Edwards, A., Leadbetter, J., Martin, D., Brown, S. and Middleton, D. (2004) *interagency collaboration: a review of the literature*. (bath: learning in and for interagency working).
- Young, M. (2001) Contextualising a new approach to learning: some comments on Yrjö Engeström's theory of expansive learning, *Journal of Education and Work*, 14 (1), pp.157-161.