

Lifelong Learning: A Pacification of 'Know How'

Katherine Nicoll and Andreas Fejes

Linköping University Post Print

N.B.: When citing this work, cite the original article.

The original publication is available at www.springerlink.com:

Katherine Nicoll and Andreas Fejes, Lifelong Learning: A Pacification of 'Know How', 2011, *Studies in Philosophy and Education*, (30), 4, 403-417.

<http://dx.doi.org/10.1007/s11217-011-9235-x>

Copyright: Springer Science Business Media

<http://www.springerlink.com/>

Postprint available at: Linköping University Electronic Press

<http://urn.kb.se/resolve?urn=urn:nbn:se:liu:diva-64566>

LIFELONG LEARNING: A PACIFICATION OF 'KNOW HOW'

Katherine Nicoll, Stirling Institute of Education, University of Stirling, Scotland,
katherine.nicoll@stir.ac.uk

Andreas Fejes, Department of Behavioural Sciences and Learning, Linköping University,
Sweden, andreas.fejes@liu.se

Published in *Studies in Philosophy and Education*, 30(4), 403-417.

Abstract

A tendency of previous studies of lifelong learning to focus on learning and learning subjectivities may have led to an underestimation of potential effects in terms of a system of knowledge constitutive processes that operates powerfully to shape our societies. In this paper we explore lifelong learning and practices in the construction of knowledge at the point where a new relationship is being attempted between university courses and workplaces through programmes for learning. Drawing from Foucault and others we argue a strategic relation between discourses of lifelong learning and knowledge practices in such locations. Discourses of lifelong learning appear to support the reaching out of disciplinary practices into the workplace where theoretical knowledge is combined with knowledge derived from work experience, as a new form of knowledge that has use value. Discipline as a modality of power appears reconfigured and multiplied in new power-knowledge constellations which aim to subdue the desire and power of know how. Rather than lifelong learning as learning apparatus and strategy in the promotion of a will to learn as has been suggested elsewhere, we offer an alternative account. Here the promotion of a will to learn articulates with the will to knowledge in part through discourses of lifelong learning. Practices of knowledge constitution support the pacification of know how through its reconfiguration as knowledge that can be codified and mobilized for economic innovation.

Keywords: Lifelong learning, power/knowledge, learning apparatus, governmentalization, will to knowledge

Introduction

Lifelong learning has become an accepted and central concept in education over the last decades and a major policy focus of the European Union and many of its member states. Emerging during the 1960s in policies on competitiveness and economic growth¹ lifelong learning is argued to be a necessary feature for individual and collective well-being and a requirement if Europeans are to remain competitive in a global environment. Over this period and in many locations lifelong learning has been bound up in quite complex ways with changes in the practices of teachers and learners, in the targeting of alternative groups and objectives for learning through new government funding streams and projects and in a refocusing of university research. In 2010 a

¹ Lifelong learning has emerged in policies of the European Commission in 1994 (Commission of the European Community 1994), in 1996 through the European Year of Lifelong Learning and the OECD and UNESCO (OECD 1996; UNESCO 1996), in the Group of Eight in 1999 (Group of Eight 1999) and European Commission a little later (European Commission 2001, 2003, 2004),

new policy agenda for Europe (European Commission 2010) replaced the Lisbon strategy of 2001 with a further long-term strategic aim for lifelong learning and a flagship initiative aiming to integrate ‘work’ and ‘education’ as a lifelong learning process (Europe Unit 2010). At the same time as this aim of integration emerged, talk about lifelong learning and a ‘research, education and innovation’ triangle in European policy (European Commission 2009: 2) suggests a new emphasis on the relationship between knowledge production and lifelong learning in contemporary discourses of governing. Although lifelong learning has been previously represented in policy as necessary for a knowledge economy, this positioning is perhaps qualitatively rather different. It is now represented as integral to work and knowledge production processes, rather than as a support to them. This is then perhaps a quite significant shift in policy discourses that is worth specific attention. Although a relationship between discourses of lifelong learning and knowledge constitutive practices has been noted in studies of lifelong learning (cf. van Weert, 2005, Nicoll 2008a, Usher & Edwards 2007, Edwards & Usher 2008; Solomon, 2008; Olssen 2008), it has not been considered in much specific detail.

We are interested in this article to explore this relation between lifelong learning and knowledge constitutive practices at the point where a new relationship might be said to be being attempted between university courses and workplaces. We draw resources from Foucault for this. Of course there have been many other studies of lifelong learning in Foucauldian terms, including our own (cf. Fejes & Nicoll 2008). However, there has been a tendency in much of this to focus on lifelong learning in terms of learning and learning subjectivities, with not so much emphasis on its relation to knowledge. It may be that in taking lifelong learning for scrutiny, learning becomes the focus of attention and is hard to displace. There has been less consideration than there might of lifelong learning in terms of knowledge, or what can be taken as a system for the constitution of knowledge of which this specific relation is a part. This may have led to an underestimation of the work of lifelong learning in terms of this system, through which knowledge constitutive processes operate powerfully to shape our societies.

We do not suggest that we may find better truths of lifelong learning through our exploration. In taking a Foucauldian approach we are not concerned to search for knowledge through which we may free ourselves from power, or find ways to make lifelong learning more effective. Rather we are concerned to undermine any assumptions that in thinking we already know what lifelong learning is we might already know what we do through it. Here then we focus on exploring an aspect of what lifelong learning does, but not suggesting any universal implications or secure ‘findings’. Discourses of lifelong learning may have specific describable relations with knowledge in some locations, but others elsewhere. Effects of lifelong learning are multiple, fragmented, dispersed and prone to reversal and interruption. However, at the same time there may be regularities in relations as alignments or linkages between discourses of lifelong learning and specific reconfigurations of knowledge constitutive practices. Discourses of lifelong learning may therefore emerge as quite necessary or even quite likely in locations where reconfigurations are involved. It is these sorts of linkages and alignments in a relation between universities and workplaces that we are interested in trying to track down.

In the first part of the article, drawing from Foucault and others, we take up the idea of an apparatus and a will to knowledge. These we identify as resources for our analysis. In the second section, we begin an account of practices of lifelong learning in the university context in relation

to emerging forms of professional and continuing workplace learning and knowledge constitutive practices. In discussing our account we avoid conclusions, but consider the alignments and reconfigurations that we have identified. Here we argue a strategic relation between lifelong learning and knowledge practices that helps bring forth economically performative knowledge in workplaces and professional settings. Discipline as a modality of power appears reconfigured and multiplied in new power-knowledge constellations that are strategically aligned to pacify 'know how' and reconfigure this knowledge in a form that can be more effectively used.

An apparatus

The notion of an apparatus is key to Foucault's analytic approach (cf. Agamben 2009) and it would thus be somewhat strange if it had not already been drawn on in consideration of lifelong learning. Simons and Masschelein (2008a&b) have recently and significantly proposed the emergence of a 'learning apparatus' in exploring the contemporary emphasis on learning in the education policies of many advanced capitalist nations. From their work emerges an account of shifts in specific fields of experience, through which they consider learning to have become regarded as a political problem and policy solution in contemporary times.

This account is significant to the exploration here in that it constitutes a notion of a learning apparatus that is argued to seek to promote a generalized and economic 'will to learn'. For Simons and Masschelein (2008b) a will to learn is brought forth through the learning apparatus, as strategy, in the name of lifelong learning, and as a system of exclusion that operates productively through a range of practices. They argue that the learning apparatus is 'a strategic complex, the learning apparatus embodies a kind of intention for it seeks to secure adaptation' (Simons and Masschelein 2008b: 56). Arguing that the problems and solutions of self-directed learning, capitalization through learning, self-managing learning come together to support a governmental regime, Simons and Masschelein (2008b: 54) propose this regime as an economic one. The focus is on the constitution of an entrepreneurial subject: "'[e]conomic" referring to the characteristics of entrepreneurship (needs, calculation, production, alertness, risk)', in which it becomes possible to view the individual as capable of engineering him or herself through entrepreneurship and as having needs that can be satisfied through the production of goods.

For us, this account of a learning apparatus as aiming to promote a will to learn is important. A will to learn is bound up with the will to knowledge that Foucault (1996) talks of. Discourses of lifelong learning, as those of pedagogy more widely, are bound up with practices of a will to knowledge. Practices of assignment writing and examination, for example, in university programmes for learning, as well as procedures and practices for self-development and learning at work, and those of self-help or informal learning, are all those through which subjects come to know as the 'establishment of truth' (Foucault 1977:184). The will to knowledge is in part this motivation to learn. Hoskin (1993) even suggested that Foucault failed to sufficiently recognise that the hyphen in power-knowledge is the structure of educational practices. Here, for Hoskin, Foucault was a 'crypto-educationalist' in that practices of examination function as 'a constant exchanger of knowledge' (Hoskin 1990: 32).

We want then to explore the idea of lifelong learning in terms of an apparatus and in relation to a will to knowledge at the intersection between university courses and workplaces. Our proposition is that analysis may have underestimated the involvement of discourses of lifelong learning in

practices relating to the constitution and dissemination of knowledge. Neither the materiality of discourses nor a system of will to knowledge have been much considered. A will to knowledge is contingent on practices and an apparatus that sustains discourses and give them materiality. It relies heavily on institutional support, practices of pedagogy, publishing, libraries and laboratories and so forth (Foucault 1996). These knowledge practices and their relations have a tendency to become realigned through discourses of lifelong learning. Learning, as we argue, involves a turn towards architectures that construct situated rather than disciplinary forms of knowledge. And this, for us, suggests an alternative strategy. Where Simons and Masschelein (2008b) suggest strategy in the constitution of a will to learn, our argument is one of strategy in knowledge terms.

To construct this argument we need first to marshal some resources. An apparatus is a system of relations between discursive and non-discursive ‘elements’ that are ‘resolutely heterogeneous’, which emerge in a play of motivations or wills which are linked as strategy (Dreyfus and Rabinow 1982: 121). These elements are such things as ‘discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions – in short, the said as much as the unsaid’ (Foucault 1980:194). For Foucault elements are identifiable as such in that they form relationships of power that are strategic as they respond to an ‘urgent need’ at a particular time (ibid. 1980: 195). Elements and their relationships are also enmeshed with the constitution and maintenance of forms of knowledge: ‘The apparatus is thus always inscribed in a play of power, but it is also always linked to certain co-ordinates of knowledge which issue from it but, to an equal degree, condition it. This is what the apparatus consists in: strategies of relations of forces supporting, and supported by, types of knowledge’ (ibid. 1980: 196). An apparatus is then linked to and supportive and productive of the specific knowledge that is required for the regulation of conduct in practices (Wetherell et al. 2003). In common use the term ‘apparatus’ refers to a set of practices and mechanisms, such as juridical, technical and military, which is strategically oriented and aims to a specific effect (Agamben 2009).

To begin to an account for lifelong learning in terms of an apparatus is to consider those practices, elements and relations of forces that may be supported or linked in part through discourses of lifelong learning, together with the knowledge that may be required and supported. It is in part also a focus on strategy, for Foucault talks of an apparatus as being ‘essentially of a *strategic* nature’ (1980: 196, emphasis original) and as ‘a matter of a certain manipulation of relations of forces, either developing them in a particular direction, blocking them, stabilising them and utilising them, etc.’ (ibid.: 196). An apparatus is therefore not the outcome of a strategy put in place by any particular person, group, government or institution of the state. Rather, it is a collection of dispersed activities, objects and ideas that have come together to operate powerfully *as* strategy. This is the ‘great anonymous’ of power, where power is intentional but also non-subjective (Foucault 1998: 95) – people intend what they do at the micro-level of practices, but this does not mean that they know what what they do does in the bigger picture, when practices become joined up with others elsewhere and specific practices do not depend on any one person for their continuation. To make such an account is then to isolate lifelong learning in relation to dispersed and specific elements, which are implicated in relations of forces that have come together to operate as strategy at a particular time, as response to a need that is in some sense urgent.

We do not suggest that we attempt a full account of lifelong learning in these terms, even given our specific focus on a relationship between university courses and workplaces. Rather we begin an incomplete, partial, fragment of a trajectory of analysis drawing on these ideas. But even this requires us to take a specific perspective, to put aside any assumptions that we might already have of lifelong learning as an objective fact, or any acceptance that arguments in support of it are to be taken unquestioningly as truthful. To explore and account for lifelong learning we therefore take it to emerge through the discursive and material practices that give it empirical presence and meaning. We put meaning as signification and truth aside, so that a play of forces may become the focus for analysis. Through this rejection what counts as the truth of lifelong learning can then be explored as an effect of power. We can focus on the way in which discourses of lifelong learning may support realignments in a system of power relations. This is not to suggest that the point is merely to show that truths are socially and discursively constructed – that everything then collapses into relativism. The point is to take lifelong learning systematically as a positive present, as a way of making lifelong learning intelligible without recourse to truth claims. The notion of an apparatus thus serves as a notional ‘grid of intelligibility’ for exploration. It is a term translated from the word ‘dispositif’ which implicates a method of analysis (Dreyfus and Rabinow 1982: 121) as well as that being examined.

We also draw as resource on Foucault’s notion of the ‘will to knowledge’ and the system and practices through which this will operates. For Foucault (1996), a will to knowledge is a specific form of the will to truth in our times. It operates externally to discourses as a system of exclusion, which in having separated truth as a form free from desire and power fails to acknowledge its embroilment with both. This is then a will that masks itself and at the same time acts as a condition of possibility for discourses. Here knowledge emerges through an opposition between truth and falsehood, which is a division and constraint that Foucault argues governs the will to knowledge in contemporary times. It is a system he suggests that is constantly under modification.

The material practices of the will to knowledge are those for Foucault (1996) where power in societies is perhaps exercised most intensely. The university is central in this, as are educational institutions more widely. The university is key as it acts in the production and dissemination of disciplinary knowledge and in the allocation of people to social roles and statuses:

‘Education may well be, as of right, the instrument whereby every individual, in a society like our own, can gain access to any kind of discourse. But we well know that in its distribution, in what it permits and in what it prevents, it follows the well-trodden battle-lines of social conflict. Every educational system is a political means of maintaining or of modifying the appropriation of discourse, with the knowledge and the powers it carries with it.’ (Foucault, 1996: 351)

The will to knowledge thus relies heavily on institutions for support and produces and constrains both ‘certain’ and scientific discourses. Through the will to knowledge, discourses ground themselves within the true – ‘found themselves, to rationalize and justify their currency’ in the natural and plausible, through sincerity and in science (Foucault 1996: 343). It is then a will to knowledge and the system of exclusion through which it operates which allows for the

constitution of specific forms and bodies of knowledge. It is a system whereby 'true' knowledge is constructed, circulated, channelled and sustained and false knowledge rejected. It is a system that requires institutional support for its maintenance but also that specific types of knowledge be exploited, valorised, distributed and put to work (Hook 2001). Foucault (1996) argues that it is this system and our will to knowledge that more or less prescribes the way that knowledge can be viewed, verified and made useful in any specific time. An emphasis for our investigation is, therefore, also on the way in which discourses of lifelong learning may act in support of any reconfiguration of the way that knowledge is used in contemporary societies.² Foucault (1996) suggests that it is not so much the way that institutions support the production of knowledge, or the constitution and maintenance of people with particular roles and functions that tells us about its use. It is the way that specific knowledge is given status and employed in society. What forms of knowledge construction and use may lifelong learning support?

Pacifying 'know how'

There is an increasing economic performativity or 'usefulness' of knowledge argued as supported by university discourses of lifelong learning (Usher & Solomon, 1999, Usher & Edwards 2007, Simons and Masschelein 2008a). Indeed, Lyotard (1984) anticipated over thirty years ago that knowledge would be less securely legitimated by its truth value in contemporary times, and that the goal of the new language game would be economic performativity and power. This kind of performativity is argued to be brought forth through new relationships built between university courses and workplaces (Usher and Solomon, 1999). By targeting workplaces under the name of lifelong learning university teaching staffs offer continuing education to the workforce. A focus on the construction of situated knowledge through the research and assignment work of such courses, acts to undermine the disciplines as bodies of knowledge. Here, students work with knowledge resources that are helpful to work related problems and issues, mobilizing this knowledge in new and innovative ways by combining it with knowledge from experience. For students to do this, a previous role for the university teacher and rules for the inclusion/exclusion of knowledge are changed. By reconfiguring the practices and relationships that support the disciplining of individuals in the production and dissemination of disciplinary knowledge, knowledge 'needed' in the workplace is able to be constructed. Here previous disciplining practices³ are redesigned to accommodate possibilities for the construction of alternative

² A will to truth for Foucault (1996) emerged between the times of Hesiod and Plato, through the division of true discourse from false. Here, he argues, for the first time it became possible for the truth to be distinguished from the person speaking it. This division was then reconfigured as a 'will to knowledge' in the sixteenth and seventeenth centuries (Foucault 1996: 342-3). Through this reconfiguration, the knowing subject became one with a particular position, viewpoint and function. This was a transformation, beginning at the time of the Enlightenment, which marked a transition from the knowing subject as a reader of and commentator on the words of the scriptures, to the knowing subject as a man of science with a function to look and verify rather than read and comment. Privileged knowledge came to function through certainty that it was free of power and could be made technically useful. This has not however been the only configuration of our will to truth, there are ongoing modifications, including changes in the divisions that govern what counts as legitimate or 'serious' knowledge. Will to truth has a history of variation according to the range of objects that are taken as those to be known, the functions and positions of the subject who knows, and the way in which knowledge is to be used at any one time (Foucault 1996).

³ Disciplining practices are those in the exercise of a disciplinary power, the main function of which is to train. It does so by individualizing: 'discipline 'makes' individuals; it is the specific technique of a power that regards individuals both as objects and as instruments of its exercise' (1977:170). Such practices

knowledge forms. ‘Truthful’ knowledge produced in the workplace implicates a shift from the discursive to the figural (Usher & Edwards, 1994: 199), where experience is increasingly understood as key as resource for learning, and learners may consider the use-value of knowledge to be more appealing than its security in truth (Usher & Edwards, 2007).

Knowledge ‘needed’ in the workplace is also increasingly constructed through those work-integrated programs and those for the recognition of prior learning that emerge through rationales and discourses of lifelong learning. Here we differentiate these as programmes where students are focused on working to learn. Cooper et al (2010:1) characterise work-integrated learning programs as ‘the intentional aspect of a university curriculum whereby the learning is situated within the act of working, whether that work occurs within a recognizable workplace or a community’. Here, curriculum knowledge is construed as that which is situated, ‘needed’, in the workplace and is characteristically identified through the analysis of job tasks and interrogation of experience. A similar way of characterizing knowledge can be seen in programs of recognition of prior learning (cf. Andersson & Fejes, 2005), where the university curriculum defines what knowledge will count as within the ‘true’, but this knowledge is that which has been developed through experience outside the academy. This again reconfigures relationships in the production and dissemination of disciplinary knowledge. While in work-based learning programs knowledge may be constituted through research in a reconfiguration of knowledge from experience with knowledge resources from the discipline and more widely, in both work-integrated and recognition of prior learning programs knowledge identified from experience is articulated as that necessary for competence to be observed and assessed. Both work-based and work integrated programmes involve a reconfiguration of disciplinary knowledge and move from knowledge implicit in experience to alternative knowledge forms.

In these kinds of educational programmes, knowledge that was hitherto considered certain as disciplinary knowledge is partially reconfigured as knowledge certain in its use value. The disciplining structures of both university institution and workplaces are changed, and people come to work through new power-knowledge constellations (Nicoll 2008b). A prior and specific relation between the subject and disciplinary knowledge becomes modified and new pedagogical discourses (lifelong learning, work-place and professional learning, etc.) help stabilise this change. An enterprising, entrepreneurial subjectivity is suggested to be produced in this reconfiguration. This is a subjectivity that fulfils itself as its own project: ‘Educating themselves by gaining a degree is both an indicator of successful self-management and one way in which subjects in reconfigured workplaces can make a “project of themselves” in a culturally sanctioned way’ (Usher & Solomon 1999: 159). The workplace thus becomes a potential site for a newly self-fulfilled, self-reflexive and regulated subjectivity, active as worker/researcher. Through these new relationships between the university and workplaces, strategies of discipline are overlapped

cannot be completely identified with a specific institution, neither with an apparatus. Rather, discipline is a modality of power exercised through instruments of hierarchical observation, normalizing judgment and examination. These instruments may however be institutionally concentrated, as is the case in a university, school, workplace, or prison. The examination, in combining techniques of observation and normalizing judgment and architectures for the exercise of these, operates in the constitution and stabilization of truth in our society. In the university institution it operates through the disciplines of the human sciences, to ‘extract and constitute knowledge’ (ibid.:185). They are practices whereby power and knowledge relations are superimposed: ‘The superimposition of the power relations and knowledge relations assumes in the examination all its visible brilliance...’ (ibid.:1977).

and intensified, as disciplinary architectures of workplaces are positioned to intersect with those of university learning.

Discourses of lifelong learning support a revaluing of knowledge as economically performative through processes that have been characterized as those of Mode 2 knowledge production (Gibbons et al., 1994). Academics, workplace supervisors and student researchers work in new, interconnected ways. Knowledge is ‘characterized by a constant flow back and forth between the fundamental and the applied, between the theoretical and the practical’ (Gibbons et al, 1994: 19) and is context driven and either task-based or problem-solving. Either way knowledge is no longer so much governed by university-based disciplinary parameters for the production of knowledge, even though these are still a partial focus as workplace forms emerge to be incorporated. With the turn to more situated and socially constitutive understandings of knowledge since the 1960s, this shift is acceptable and even expected. Lifelong learning already implies that learning can be set ‘free’ from the constraints that were previously legitimate. It constructs a space to map out new forms of knowledge, new incorporations and exclusions, internal divisions and hierarchies and new distinctions in learning in relation to them.

Discourses of lifelong learning in both university and workplace locations help articulate a will to knowledge. In the workplace, a new form of knowledgeable worker is in part required through post-Fordist discourses of organizational management (Findlay and Newton 1998). The responsibility for decision-making over problems in the post-Fordist work organization is devolved to multi-skilled work teams with multi-tasking workers, and the changing world requires knowledge that is not static. It may be then no accident that discourses of lifelong learning and worker and organizational flexibility have emerged alongside each other and are linked (Nicoll 2008a) - worker flexibility requires learning and learning affords worker flexibility. At the same time is constituted a new relationship between knowledge and learning as the flexible entrepreneur seeks and values knowledge that helps solve new work problems. In this way and alongside a quite general turn to value knowledge differently in workplaces, there have emerged new theorizations of both knowledge and learning. The motivation, the will, is for knowledge through learning. And, the articulation between knowledge generation practices of university and work becomes understood as key to the constitution and mobilisation of knowledge in a hybrid form (cf. Boreham, 2002), whereby processes of learning are argued as the vehicle for this.

Innovation in knowledge, research and learning have become the name of the game since the OECD ‘embraced’ new growth theory and human capital theory in the 1960s and a ‘knowledge base’ became understood as crucial to the economy (Robertson 2009: 239). Only some are targeted through the new power regime, as discourses of lifelong learning may tend to position some workers as lifelong learners and flexible workers and others as managers. Forms of lifelong and flexible learning may thus operate to make a new division or re-inscription of an older division between those who know and those who must learn to know, which may be just as invidious as divisions that have gone before. Learning is indivisible from knowledge constitution in these situations, continually positioning the individual as not (yet) expert and therefore available for disciplining through examination.

There is a kind of aim and strategy that can be argued here, although not one that is intentional or put in place by an individual or group. For it is through the articulation of the disciplinary practices of the university with those of knowledge generation as research and learning at work, that Mode 2 knowledge can emerge with high status and be incorporated within the true – as knowledge that is certain in that it has been accepted. For this relation of force to be developed and stabilised, discourses tying the university to knowledge generation at work become necessary.

Knowledge that is useful is argued to take a specific form. Know how from experience must be combined with theoretical knowledge, in the constitution of Mode 2 or work-process knowledge, if the problems of the new flexible and informed workplaces are to be solved (Boreham, 2002).⁴ Know how is the procedural knowledge for particular jobs that is accumulated through experience. Experiential knowledge, or know how is difficult to articulate. Knowledge that is difficult to formulate into words is only useful in situations where contexts are stable, and there is time for a worker to gain the necessary experience to acquire it. Mode 2 or work-process knowledge is therefore quite generally understood as integral and essential to work activity in contemporary discourses of knowledge for work.

Organizations are argued to need further and more nuanced understandings of knowledge to support improvement. Problem-solving is seen as the central activity, through architectures for learning and communication that are now changed - ‘in dynamic and unpredictable work environments, workers need a social structure for creating shared meanings in order to make the situation more intelligible and controllable’ (Boreham, 2002: 9). The work-places required through emerging discourses of work organization for learning and knowledge generation, become those designed for learning as well as work, and workplace architectures are suggested to need to be redesigned.

Know how is combined with theoretical knowledge, through the generation of Mode 2 and work-process knowledge, as problems are solved at work. This new knowledge form is considered to emerge through a dialogic process between these two other forms, and where contradictions between what theory predicts and what happens occurs in the practice of solving problems (Boreham, 2002). This knowledge is centrally required in the shift from the organization of work based on Taylorist and Fordist principles and architectures, towards those that are needed to support flexible and ICT-based work. From the new need for knowledge emerges a logic for the ‘superior’ learning capacity for workers, if they are to learn from their experience and adopt the necessary ways of engaging with each other (Oliveira et al. 2002). The worker is seen to need to be intrinsically motivated towards learning; regarding learning as a means of shaping their own biographies (Fisher and Rauner 2002). The will to knowledge comes in this way to be overlain with that of a will to learn, and the exercise of power intensified in this focus on the generation of work-process knowledge through learning.

The disciplining practices of the university reach out, aiming to pacify know how. For outside ‘scientific’ discourse a whole range of knowledge has been excluded. Here a wider system of exclusion pacifies discourses through the disciplinary rules whereby the true and false

⁴ The term ‘work-process knowledge’ emerged first in the disciplinary discourses of the HRD literature through the work of Wilfried Kruse in 1986 in Germany (Boreham, 2002).

propositions can be identified: 'within its own limits, every discipline recognises true and false propositions, but it repulses a whole teratology of learning. The exterior of science is both more, and less, populated than one might think' (Foucault 1996: 348). As know how is only somewhat amenable to language it is not amenable to codification or dissemination. It is difficult to separate from the worker who demonstrates its existence - for example, the worker demonstrates know how through experienced work. And, as such, it is knowledge implicitly made manifest in such a way that it calls for pacification. Disciplining practices aim for the pacification of knowledge through processes for the accreditation of competence, codification of know how in the recognition of prior learning and knowledge innovation: for 'there are monsters on the prowl... whose forms alter with the history of knowledge' (ibid. 1996: 348). For Foucault (1996), the whole apparatus and system for the control of discourse aims to overcome an anxiety and uncertainty over discourses. This is over its powers and dangers when it is made manifest in ways that we do not understand: 'at any rate, not belonging to us; uncertainty at the suggestion of barely imaginable powers and dangers behind this activity, however humdrum and grey it may seem' (ibid. 1996: 340). Thus, it is for Foucault that discourse is controlled through procedures that aim specifically to avert these powers and dangers. Here, discourses position know how as a lesser form of knowledge than work-process or Mode 2 knowledge. It is positioned as a form that needs to be made explicit so that it may be worked on. Knowledge that is the know how of experience, becomes pacified through its objectification and inclusion within the true of disciplinary knowledge. In this it is made safe by our understanding of it, and at the same time is made available for further work and mobilization.

There is then what could be argued as a strategic shift and reconfiguration in the will to knowledge, which perhaps suggests its emergence in a new form. New forms continuously emerge (Foucault 1996).⁵ They rely on shifts in the institutions and apparatus that offers them support. Where this occurs, the effect is change in the way in which knowledge is employed in societies. It becomes insufficient that individuals or groups hold knowledge gained through their experience to themselves. For when the experienced speak their words must be either accepted or rejected. Only others who are experienced can assess if what is said is within the true. There is thus a danger in know how, for truth lies in the person or group who speaks rather than in what is said. For knowledge to be pacified it must be able to be seen to be separated from the exercise of power and desire, and this requires that truth lies in what is said and not in who speaks (ibid. 1996). Pacified knowledge in this situation is know how that has been codified, made amenable to analysis and dissemination and therefore can be worked on and used by those outside the group. It is knowledge whereby truth can be seen to lie in what is said. What is positioned as potentially within the true is that which can be articulated as necessary for competence and what works in the solving of new problems. Work-process knowledge as a codification of know how and re-combination with other knowledge forms thus opens possibilities for the formulation of new propositions and new propositional forms. These may become incorporated within the true of a reconfigured discipline or rejected as 'error' (ibid. 1996: 348). Know how may be combined and reconfigured as a new form of knowledge that allows for innovation to be articulated. Work-process knowledge is needed in work-teams where roles are constantly changing and is the

⁵ Foucault argues that the historical division between true discourse and false emerging between Hesiod and Plato has given a general form to our will to knowledge but that (1996: 348): 'the great mutations of science may well sometimes be seen to flow from some discovery, but they may equally be viewed as the appearance of new forms of the will to truth'.

vehicle to incorporate know how. There is however no single ordered view of the world to impart in this new form of disciplinary knowledge, as multiple realities are constructed through experiences of the workplace that are already interpreted (Usher and Edwards 1994). But the dangers of power and desire are partially quelled where it is accepted as partial and provisional knowledge, and where as such it can be incorporated, made mobile and put to work.

Clear solutions to problems through this hybrid knowledge are not easily forthcoming (Barnett 2004). In worlds where contexts differ, problems are uncertain and complex, and there are always unintended consequences and loose ends to actions; '[t]he idea of problem-solving, so central to the idea of Mode 2 knowledge, is problematic because it implies that - with sufficient imagination, daring and creativity - a solution can be designed' (ibid. 2004: 251). Barnett suggests that knowing the world means recognising that we must also always constitute epistemological gaps which avoid capture in meaning. He posits a Mode 3 knowledge. This is a 'knowing-in-and-with-uncertainty' (ibid. 2004: 251), as a way of knowing in uncertainty, which unsettles certainty as it brings forth uncertainty. Discourses of lifelong learning, deployed in specific contexts, thus appear implicated in epistemological problematization. As new knowledge emerges in multiple forms to be categorized and mobilized there emerges an epistemic reflexivity (Usher and Edwards 1994) as response. Epistemic reflexivity points to the location of knowledge production and research within epistemic communities - research brings with it its own theory about knowledge and truth, and is not 'innocent' (Ushers and Edwards 1994: 149). This is to acknowledge that research always has, and has had, implications in terms of power relations. Epistemic reflexivity thus allows us to problematize our own immersion as researchers and the immersion of others within specific communities, and the effects of this in terms of knowledge production. Questions over the neutrality of knowledge, research and writing leads to a flattening of traditional hierarchies, understandings of knowledge as always partial and fragmented, and a heightening of senses of uncertainty and risk.

It would also seem that in shifts towards workplace and problem-based learning, knowledge may become more open and prone to the kind of 'error' that Foucault identifies (1996, 2007). For Foucault error suggests increased possibilities. Error is afforded knowledge that may be truth, but cannot be included into a discipline in that the knowledge does not conform to its governing rules: 'Disciplines constitute a system of control in the production of discourse, fixing its limits through the action of an identity taking the form of a permanent reactivation of the rules' (Foucault 1996: 349). Errors are made by those who construct propositions knowledge which cannot be accepted: 'Mendel spoke the truth, but he was not dans *le vrai* (within the true) of contemporary biological discourse: it simply was not along such lines that objects and biological concepts were formed' (ibid. 1996: 348-9).

Some propositions may be so far from acceptance, so far from the rules that include and exclude new propositions into a discipline, that they might not be called errors at all. These 'monsters' (Foucault 1996, 2007) are propositions that require the reconfiguration of the rules before they can be accepted. For example: 'A whole change in scale, the deployment of a totally new range of objects in biology was required before Mendel could enter into the true and his propositions appear, for the most part, exact' (ibid. 1996: 349). Disciplines construct a system of control through rules that are constantly produced through their reactivation, and through the regulation afforded by this activity. 'Disciplines constitute a system of control in the production of

discourse, fixing its limits through the action of an identity taking the form of a permanent reactivation of the rules' (ibid. 1996: 349). Where the university disciplines reach out to assess new forms of knowledge and new kinds of propositions for their potential incorporation, this implicates a certain flexibility, a new openness, to the reconfiguration of the rules of the discipline.

Discussion

There are then strategic dimensions to discourses of lifelong learning in these specific contexts. They act in the extension and intensification of the exercise of power through an overlaying of a will to learn with the will to knowledge, and in this support a reconfiguration of the will to knowledge as it becomes more intensely focused on and open to participation in worksites, and open to new propositions and knowledge forms.

Power effects partially emerge through changes in the material practices of universities, institutions of education and the workplace, where lifelong learning or related discourses (for example, for workplace, work-related learning and work-process knowledge) are taken up to guide course provision. Although discourses of lifelong learning are not essential in these local contexts, as similar power effects may emerge without them (Australia, for example, has not adopted discourses of lifelong learning to any great extent, and those designing and offering programmes for workplace learning may not deploy discourses of lifelong learning as they do so), they tend to act as a support in the development of relations of forces in a particular direction, helping to stabilize these so that discourses as elements and their mechanisms may become connected up and used in a particular way. These effects are encouraged and may be partially stabilized in locations where discourses of lifelong learning are mobilized. At the same time discourses of lifelong learning, and those that are aligned, may themselves be made object of study in the proliferation of the knowledge required for governance (Simons and Masschelein 2008a&b), and make life-long and life-wide learning to some extent expected and people potentially more amenable to its suggestion.

Here practices may have a tendency to support the constitution of the learner as 'entrepreneur' in the production of what we have characterized as Mode 2 knowledge. This is a specific movement through which individuals are made subject to a 'true' practice, and autonomy – freedom – is achieved through knowledge that is 'certain' (Foucault 2007). Certainty of knowledge is required if the subject is to be able to be active. Here know how is classified as certain through its codification in processes for the accreditation of prior learning, assessment through practices of competence appraisal, and use in the solving of new problems. In support of the constitution of the entrepreneur, discourses of lifelong learning are aligned for the pacification of know how, as knowledge is reconfigured in new forms. Here certainty may depend on the situation, the task and the problem being solved, but it is not to be derived from the experience of the subject alone, in the status of the speaking subject. Certainty must remain at the same time uncertain, as knowledge is always partial, fragmented, and a risky business in use.

This is economically performative knowledge in that it is aligned as productive in these terms. In pacifying know how the enterprising and entrepreneurial subjectivity is constituted as one who makes a project of themselves through learning and knowledge codification work. However, at the same time the disciplining and hierarchical structures of the university and workplace shift, as

people work through architectures and rationales that reconfigure previous power-knowledge constellations. The knowledge emerging is multiple and situated, and clear solutions to problems appear difficult to identify. A promise and assumption of imaginative solutions is accompanied with the heightening awareness of epistemological uncertainty and risk. Knowledge forms emerge from previous immersion in experiences alongside self-governing and self-reflexive subjectivities. And as disciplinary practices reach out, the possibilities for knowledge multiply and proliferate. Discipline as modality is displaced but at the same time multiplied and re-inscribed; bringing forth multiply-centred subjectivities.

We have argued that forms of analysis that draw resources from the work of Foucault may have underestimated the work of discourses of lifelong learning, through a tendency to consider them in terms of learning, learning rationalities and subjectivities. Neither the materiality of these discourses nor their functioning in relation to a system of will to knowledge have been much considered. An exploration of lifelong learning in this way suggests that there is strategy involved, but not only in the constitution of a will to learn (Simons and Masschelein 2008a&b). There is a strategy to the pacification of know how through its reconfiguration in codified forms that can be better mobilized and used. The urgency is in the 'need' to pacify the desire and power of experience (Foucault 1996), to harness it, through the provision of workplace and work-integrated learning and programmes for the recognition of prior learning, in order that the use-value of knowledge be extended. Here an extension and reconfiguration of a will to learn is mutually related to one of the will to knowledge.

This pacification is in itself no doubt dispersed and fragmented, and possibly subject to reversal. It may occur in one place but not in others, and discourses of lifelong learning are not essential. However, through the relations as alignments or linkages between discourses of lifelong learning and the proliferation of motivations to knowledge, power effects appear intensified. Through these alignments, a kind of strategy appears wherein discourses of lifelong learning emerge as quite likely, as knowledge from experience is reworked in forms that can be used and an entrepreneurial subjectivity is brought forth for this work.

Certain knowledge is partially foundational - depending on the rules of the discipline. But as knowledge forms emerge that require alternative rules, it may be in part that knowledge is made certain through its use-value and acceptance as such. It would seem that in planning for the future, and in shifts towards work-related and problem-based learning, knowledge may become more performative, open and prone to error and uncertainty. But the possibility of error is not necessarily one of constraint - it is also one of increased possibility. Know how may conjure the fear of monsters on the prowl, but it may be that it increases the possibilities of discourse as knowledge slips partially out of previous traces in attempts to incorporate them.

Acknowledgements

We wish to thank the three anonymous reviewers and Professor Julie Allan and Professor Richard Edwards for their helpful feedback on this article.

References

- Andersson, P. & Fejes, A. (2005) Recognition of prior learning as a technique for fabricating the adult learning: a genealogical analysis of Swedish adult education policy. *Journal of Education Policy*, 20(5), 595-613.
- Agamben, G. (2009). *“What is an apparatus?” and other essays*. Stanford, Calif., Stanford University Press.
- Barnett, R. (2004). Learning for an unknown future. *Higher Education Research & Development*, 23(3), 247-260
- Boreham, N. (2002) Work process knowledge in technological and organizational development. In Boreham, N. Samurcay, R. & Fischer, M. (eds), *Work process knowledge*. Routledge Studies in Human Resource Development, London: Routledge.
- Boreham, N., Samurcay, R. & Fischer, M. (eds) (2002). *Work process knowledge*. Routledge Studies in Human Resource Development, London: Routledge.
- Commission of the European Community (1994). *Competitiveness, Employment, Growth*, Luxembourg: Office for Official Publications.
- Cooper, L. Orrell, J. & Bowden, M. (2010) *Work integrated learning: A guide to effective practice*. Abingdon: Routledge.
- Dreyfus, H. and Rabinow, P. (1982). *Michel Foucault: Beyond structuralism and hermeneutics*. London: Harvester Wheatsheaf
- Edwards, R. & Usher, R. (2008). *Globalisation & pedagogy: Space, place and identity*. 2nd edn. London: Routledge.
- Europe Unit (2010). *The European Higher Education Area: Celebrating a decade of engagement*. Universities UK. http://www.europeunit.ac.uk/sites/europe_unit2/europe_2020_strategy/index.cfm. Accessed 6th November 2010.
- European Commission (2001) *Communication from the Commission: Making a European Area of Lifelong Learning a Reality*. Brussels: European commission, Directorate-general for Education and Culture and Directorate-general for Employment and Social Affairs.
- European Commission (2003). *Implementing lifelong learning strategies in Europe: progress report on the follow-up to the Council resolution of 2002, EU and EFTA/EEA countries*, European Commission and the European Centre for the Development of Vocational Training (Cedefop).
- European Commission (2004). *Implementation of ‘Education & Training 2010 Work Programme, Working Group B, ‘Key Competences’, Key Competences for Lifelong Learning a European Reference Framework*, European Commission.
- European Commission (2009). *Developing the role of education in a fully-functioning knowledge triangle, Notices from European Union Institutions and Bodies, Official Journal of the European Union, Council conclusions 2009*. European Commission: 2. http://ec.europa.eu/education/lifelong-learning-policy/doc1120_en.htm. 6th November 2010.
- European Commission (2010). *Strategic Framework for Education and Training*. European Commission. http://ec.europa.eu/education/lifelong-learning-policy/doc28_en.htm. 6th November 2010.
- Fejes, A. & Nicoll, K. (eds) (2008) *Foucault and lifelong learning. Governing the subject*. London: Routledge.

- Findlay, P. & Newton, T. (1998). Reframing Foucault: The case of performance appraisal. In A. McKinlay & Starkey, K. (eds) *Foucault, management and organization theory*. London: Sage.
- Fisher, M. & Rouner, F. (2002) The implications of work process knowledge for vocational education and training. In Boreham, N. Samurcay, R. & Fischer, M. (eds), *Work process knowledge*. Routledge Studies in Human Resource Development, London: Routledge.
- Foucault, M. (1977). *Discipline and punish: The birth of the prison*. London: Penguin Books.
- (1980). *Power/knowledge: Selected interviews and other writings 1972-1977*, New York: Pantheon
- (1996). Discourse on language. In R. Kearney & Rainwater, M. (Eds). *The continental philosophy reader*, London: Routledge
- (1998). *The will to knowledge. The history of sexuality 1*. London: Penguin books.
- (1999). *Powers of freedom: Reframing political thought*. Cambridge: Cambridge University Press.
- (2007). *The politics of truth*. In S. Lotringer (Ed.) 2nd edn. Los Angeles: Semiotext(e). 1997 in Dreyfus and Rabinow
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. & M. Trow (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. London: Sage.
- Group of Eight, (1999). Koln Charter: Aims and ambitions for lifelong learning, 18 June 1999, Group of Eight: Cologne.
- Hoskin, K. (1990) Foucault under examination: the crypto-educationalist unmasked In Ball, S. (ed.) *Foucault and education: disciplines and knowledge*. London: Routledge, 29-53.
- Hoskin, K. (1993). Education and the genesis of disciplinarity: The unexpected reversal, *Knowledges: historical and critical studies in disciplinarity*. In E. Messer-Davidow et al. (ed.), London: UP of VA: 271-304.
- Hook, D. (2001). Discourse, knowledge, materiality and history; Foucault and discourse analysis. *Theory and Psychology*, 11(4), 521-547.
- Lytard, J-F. (1984) *The Postmodern Condition: A Report on Knowledge*. Minneapolis, University of Minnesota Press.
- Nicoll, K. (2008a) *Flexibility and Lifelong Learning: Policy, discourse and politics*. 2nd edn. London: Routledge.
- Nicoll, K. (2008b). E-learning and the demise of discipline. In A. Fejes & K. Nicoll (eds), *Foucault and Lifelong Learning*. London: Routledge.
- OECD (1996) Lifelong Learning for All: Meeting of the Education Committee at Ministerial Level, 16/17 January 1996, Organization for Economic Co-operation and Development: Paris.
- Oliveira, M. T., Oliveira Pires, A.L. & Gaio Alves, M. (2002) Dimensions of work process knowledge. In Boreham, N. Samurcay, R. & Fischer, M. (eds), *Work process knowledge*. Routledge Studies in Human Resource Development, London: Routledge.
- Olssen, M. (2008) Understanding the mechanisms of neoliberal control: lifelong learning, flexibility and knowledge capitalism, *International Journal of Lifelong Education*, 25(3) 213-30
- Robertson, S. (2009) Producing the global knowledge economy. In M. Simons, M. Olssen and M. Peters (Eds), *Re-reading education policies*. Rotterdam: Sense Publishers, 235-256.

- Simons, M. & Masschelein, J. (2008a) The governmentalization of learning and the assemblage of a learning apparatus. *Educational Theory*, 58(4), 391-415.
- Simons, M. & Masschelein, J. (2008b) Our 'will to learn' and the assemblage of a learning apparatus, in A. Fejes & K.Nicoll (Eds) *Foucault and lifelong learning: Governing the subject*. London: Routledge.
- Solomon, N. (2008) Academic work and adult education: a site of multiple subjects, in A. Fejes & K.Nicoll (Eds) *Foucault and lifelong learning: Governing the subject*. London: Routledge.
- UNESCO (1996) Learning: The Treasure Within, Report to UNESCO of the International Commission on Education for the Twenty-first Century, Paris: UNESCO.
- Usher, R. & Edwards, R. (1994) *Postmodernism and Education: Different voices, different worlds*. London: Routledge.
- Usher, R. & Edwards, R. (2007) *Lifelong learning – Signs, discourses, practices*. Dordrecht: Springer.
- Usher, R. and Solomon, N. (1999) Experiential learning and the shaping of subjectivity in the workplace, *Studies in the Education of Adults*, 31(2) 155-63.
- Van Weert, T. (2005) Lifelong learning in the knowledge society: Implications for education. *Education and the Knowledge Society*, 161: 15-25.
- Wetherell, M., Taylor, S. & Yates, J.S. (2003, 3rd edn.) *Discourse theory and practice: a Reader*. London: Sage.