Older workers and learning through work: Agency, intentionality and critical reflection

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Abstract

This chapter argues that all the workers are caught up in a contradictory discourse about work and remaining competent throughout their working life. While claiming to be equally valued, these workers face a lack of support. While needing to rely more on social and cultural support as a maturation processes work against them, these are not always made available. In short, in order to maintain their competence and viability as workers they are required to engage agentically with working life, perhaps more so than younger workers. So, older workers' capacity to enact a personal epistemology premised on critical reflection stands as a necessity for them to engage effectively in working life.

Work, change and older workers

Regardless of their claim that work is becoming either more or less demanding, many accounts of the requirements of contemporary work refer to the constant change in these requirements (e.g. Tikkanen et al 2002). These changes extend beyond considerations of technical capacities to include transformations in the interactions that constitute work and work practices. It seems, the task of maintaining and developing competence in contemporary workplaces includes engaging and negotiating with different and new ways of working and means for working. Consequently, ongoing learning is required throughout working life. This requirement, likely, plays out in different ways for different cohorts of individuals given their work, its degree and frequency of change, their background, gender, age, skill levels and support provided by their workplaces. For older workers there may be particular challenges, arising from the redundancy of their expertise, as familiar ways of working and goals for work performance change. These workers new learning may sit alongside the displacement of existing capability, competence and capacities, with its attendant risks to their confidence. Not that this new learning is necessarily wholly disempowering, alienating or marginalising, but it may be quantifiably distinct for older workers, because of the displacement of existing competence. Moreover, European employers are most likely to extend resources supporting younger and more qualified workers than older workers (Brunello and Medio 2001, Leuven and Oosterbeek 1999). So older workers are unlikely to be afforded high levels of support, despite their needs being more urgent and compelling.

There are distinct and unresolved views about whether new learning is more difficult for older humans. Studies on language acquisition claim that the malleability of cognitive capacities and structures of younger humans permits multiple language development to occur in ways far easier and perhaps quite distinctly from older humans (Sigelman 1999). While this view remains to be proven, it is reasonable to suggest that for older workers to remain competent requires their effortful and focused engagement in the process of and management of their learning. So, aside from what support is provided to assist their learning throughout working life, individuals' motivation, engagement and intentionality will be central to their remaining competent, and extending the scope of that competence. Not the least of these are threats to their sense of self and identity.

This paper argues that older workers' remaining competent is necessarily focussing on what drives that intentionality and interest in engaging in this learning. In particular, it discusses

the centrality of personal agency and sense of self and identity to the enactment of older workers' agency and their empowerment through critical reflection. It is proposed that individuals' sense of selves and the drive to 'be themselves' is key to how they engage in work related learning and maintaining competence throughout working life. This drive is necessary to overcome barriers created by maturation and social marginalisation. Therefore, conceptions of competence, its development; lifelong learning and its goals are at least, in part, a product of and contribute to individuals' sense of self, identity and how their intentionality and agency is enacted. It is a personal epistemology based around critical reflection (van Woerkom 2003) that stands as a basis for individuals to agentically maintain competence throughout working life.

The paper makes its case in the following way. Some characteristics of the changing requirements of contemporary work are briefly rehearsed and essential aspects of work performance are discussed. Then, the prospects for older workers' development and engagement are briefly reviewed from upon appropriate literature. Following this, it is proposed that cultural and social resources are central for the older worker's competence as is their agency and intentionality in engaging with these resources. Yet, workplace affordances may not always favour older workers. Following this, the paper identifies issue of how individual agency and intentionality and issues of self will become important qualities for shaping the prospects for older workers development for and in the workplace. In conclusion, it is proposed that a personal epistemology based around critical reflection at work already stands as a basis for assisting older workers maintain competence and needs to be exercised more fully by older workers.

Changing nature of work

Literature discussing the turbulent requirements for effective work practice identify three kinds of changes are occurring. These are those associated with the: kinds of work available; the requirements for work; and how individuals access work (Billett 2001). Firstly, in Western economies the kinds of work available at changing. Changes in the goods and services, technology, and the geographical re-distribution of production and services means that the kind of work available in given communities or countries may be subject to significant change. Many Western countries have experienced the decline of manufacturing, reducing demand for traditionally valued skills. Likewise, changes in agricultural work have caused shift from traditional employment in the rural sector. While jobs on farms may are becoming fewer, those associated with the transportation, processing and distribution of farm products are growing. Similarly, professional and para-professional service roles are increasing as proportions of many western-style nations' labour markets. Yet, these jobs are often centralised to secure economies of scale in their operation, sometimes in locations remote from work workers have been displaced. Much of this has been enabled by electronic technology. That same technology has also transformed industries such as retail (Bernhardt, Morris et al. 1998; Bernhardt 1999) clerical, insurance and banking (Hughes and Bernhardt 1999), thereby changing the roles and requirements for workers in those sectors. Implications for older workers include the cessation or significant transformation of work and the requirement to relocate to secure the work. Down turn in an industry sector or its transformation by technology (e.g., in the printing industry), may render many old workers as now having redundant skills and their sense of self and identity as workers severely compromised.

These changes to the kinds of work available will play out differently for older workers across industry sectors. Some sectors may be relatively immune from some of these transformations, because these forms of work continue on or even increase. However, and regardless there will be changed work requirements of work that will likely arise for all kinds of workers, yet may impact on older workers whose skills and confidence (competence) is founded in the past.

Secondly, contemporary work requirements are often quite different from earlier times. The conduct even of existing vocational practices (e.g. teaching, nursing, hairdressing, motor

mechanic) are subject to change as technologies and needs evolve and are quite diverse given particular workplaces location, specialism, focus and history (Billett 2001). Some work will be up skilled, while others might be down skilled by technology and changes in work practices. Typically, also having reduced workforce size, as in down sizing, requires a broader range of tasks to be undertaken by fewer workers (as in multi-skilling). Certainly, the requirements for contemporary work often become more intense (Cook-Gumperez and Hanna 1997) and require more frequent adaption to change as service and production cycles become shorter(Davis 1995; Wall and Jackson 1995). Moreover, work tasks are rendered more complex by technology that is opaque in its operation (Tikkanen et al 2000), and a subsequent increase in the level of conceptual or symbolic knowledge required in contemporary workplaces because of technology (Barley 1996; Whalley and Barley 1997) and other processes that make the knowledge needing to be learnt more remote (Zuboff 1988; Martin and Scribner 1991). In addition, the greater levels of interactivity (including negotiation, collective working) required in workplaces promoting flatter organisational structures (Danford 1998) and the requirements to be both more specialised and have broadly applicable skills make contemporary work more demanding. All this suggests there may be particular challenges for older workers, as this knowledge for work is held to be increasingly conceptual, when older adults may have preference for functional learning (see below) and requiring greater interactivity, which may be restricted as societal mores continue to promote the sentiment that restricts spending time and resources developing older workers' skills.

Opposing meeting such needs are trends in the changing relationships between employers and employees, and how workers are coming to engage in contemporary work and workplaces. So, thirdly, how individuals are engaging in the workplace is changing. Increasingly, and against expectations, workers in many countries are remaining in contingent forms of employment: casual, (Lipsig-Mumme 1996) part time (Tilly 1991; Shima 1998) or contractual (Tilly 1991; Grubb 1996). For some, there is also a physical separation between themselves and the workplace as they work from home. Such arrangements, however, do not play out equally among all workers. Such contingent arrangements are more likely to be played out in work for sectors that are prone to casualisation, but also for workers who are the most recently employed. Significant here are that: (i) separation from the workplace; uncertainty in the workplace; (ii) employers seeing employees as being potentially temporary; and (iii) tensions between full and part-time workers all constitute an environment in which the sharing of knowledge and the support of colleagues learning throughout their working life may be imperilled. In making sense of these kinds of changing environments, individuals likely engage in some form of reflection of their experiences (van Woerkom 2003), and that reflection stands as the basis for bridging the demands and constraints of workplaces and individuals' needs.

Working life and requirements for work are subject to change in the kinds of work available, the requirements to undertake work effectively and engagement with work and workplaces. Collectively, these emphasise the need for transforming competence throughout individuals' working lives, which represents particular challenge for older workers who may have to address issues of erosions to their existing knowledge and re-establishing their competence. Yet, how best should old workers or those interested in their welfare to maintain and develop be advised about developing their capacities throughout the last decades of their working lives. Certainly some form of reflection likely occurs through such experiences and for this to be focussed positively and not generative of blame: it needs to be critical and reflexive.

Capacities and prospects for older workers development

Much remains unknown about the prospects and potentials for older workers to be competent throughout their working lives, which for many is getting longer. The literature on human development across the lifespan suggests that whereas maturation processes are helpful in expanding the competence in capacities of children and younger adults, they work against older workers. There is an inevitable decline in a range of human functions such as speed in reaction

time, processing of novel ideas and the active engagement of memory. However, the evidence also suggests that older adults have developed significant memories and capacities that are highly effective in resolving problems and performing effectively in work-related roles. This capacity can compensate for slower nervous systems (Baltes and Staudinger 1996), because the level of performance is not dependent on processing capacity alone. It has been shown that while typing speeds might decline of time, old typists has efficient as younger typists, possibly because their experience allows them to predict and executed the typing task more efficiently than the younger counterparts, because of their wealth of previous experiences.

"So while older adults may well experience some basic processing shortfall, they may well have developed specialised knowledge and strategies that may compensate for these losses. This is posited as being most likely as a carry out everyday activities that are most important to them." (Sigelman 1999)229)

This view is supported by functional preferences and relativist views on thinking and acting (Baltes and Staudinger 1996). That is, the kinds of functional applications that are central to work are also consistent with the preferences for adults' organisation of knowledge and bases for performance (Tikkanen et al 2000). Rather than abstracted or dis-embodied forms of knowledge, functional applications seem to be central to what motivates the engagement with an organisation of adults' knowledge. Moreover, increasingly rather than viewing knowledge as formalisms -- being set body of knowledge that is objective, as in an objectively definable domain - increasingly, knowledge is seen to be associated with individuals' construal and construction -- that is an individual domain of knowledge. This constitutes the relativist claim. The important point here is that the likely prospects for the utility of the knowledge in application to them emerging in personally novel circumstances is founded within the individuals' experience and 'sense making'. Associated with this is the kind and purposes of the reflective activities that older workers might engage in (van Woerkom 2003). That is, the criticality of these activities might be directed towards heightening concerns about older workers' competence.

Overall, cognitive performance does not necessarily decline with age (Sigelman 1999). Older individuals fall back on initial models of thinking, it seems. So even when older humans have been found to be slower with problem-solving activities, very brief training may be able to improve cognitive abilities (p.186). This suggests these capacities may endure, yet are required to be engaged and or reactivated. So, as the potential remains, therefore, the opportunity and desire for their exercise come to the fore. In the absence of development coming from internal maturation processes (Baltes and Staudinger 1996) it is necessary to seek support from social and cultural sources outside individual. Moreover, and associated with functionality and relativist conceptions of knowledge and learning, it would be wrong to associate decline in some sensory systems with a decline in individual capacity more generally. Perhaps, at the heart of older workers' capacity to remain competent throughout their working life is the potential power of their agency and intentionality linked to their personal and professional subjectivity. This suggests the need to be personally agentic and reflective in their dealing with the world beyond themselves. Yet, the exercise of this agency will, in part, be subject to and conditional on support provided in the workplace.

Prospects for support or workplace affordances

Despite older workers need to be afforded high-levels of support in the workplace to ensure their competence and capacity to contribute effectively, it cannot be replied upon. For many older workers, rather than being invitational, the workplace presnts as a contested environment where support is conditional upon workplace factors. In some sectors, while being employed in increasing numbers of older workers are seen as 'last resort' employees (Quintrell 2000). There is little evidence to suggest that employees categorised in this way will be a high priority in the

distribution of opportunities for learning in the workplace (Billett and Smith 2003). Decision making of this kind is likely to be supported by a cultural sentiment in which youth is championed and age is a natural decline (Giddens 1997). The kinds of affordances individuals need to maintain in their working life often require access to interactions, opportunities and engagement with others. Yet these may or may not be made available to older workers. In increasingly competitive environments, it seems that workplaces are becoming more contested. There is contestation between full and part-time workers (Bernhardt 1999), between workers of different disciplines (Billett 1994; Darrah 1996), between old-timers and newcomers (Lave and Wenger 1991), across genders (Solomon 1999; Bierema 2001) and between workers of different affiliations. There are also inevitable personal cliques and affiliations that make available or inhibit access to learning related activities and interactions.

One outcome of highly contested workplaces is that workers in need of support may be reluctant to seek support, to avoid drawing attention to themselves. For instance, (Church 2004) refers to disabled workers who have particular needs and yet are strategic and cautious in their demands for support the workplace and coworkers. They fear being seen as liabilities in a cost conscious working environment. Least this example seems extreme, Church (2004) reminds us that for most workers old age and disability come together at some point. Yet, across European countries employers are far more likely to spend funds on training the young and well-educated, rather than older workers (Brunello 2001; Brunello and Medio 2001; Giraud 2002). True, some European countries in northern Europe have mature attitudes towards and claim a strong sense of obligation to older workers as a set of national policies and practices (Bishop 1997; Tikkanen et al 2000; Smith and Billett 2003). However, in the case of employer distribution of opportunities to employees, there seems to be little evidence that legislation (Giraud 2002), national sentiment or government mandation (Bishop 1997) are able to influence how enterprises expend resources on their employees. Yet, there is a strong indication that older workers prefer to learn to practice and that workplaces lend themselves as potentially effective learning environments. Tikkanen et al (2000) propose that more attention and effort needs to go into workplace that actively promote older workers' learning.

The sentiment associated with the support of mature workers may change as they become an increasingly large portion of the workforce. That is, the interest being directed towards the younger workers will be redirected. However, there is some room for pessimism here. Certainly, there is little evidence to suggest that, as women become a greater proportion of the workforce, that the kinds of support the provision that women require is being met by their employers. Also, the orthodoxy of full employment leading to enhance efforts by employers to grant employees tenure and enhanced support has not been widely enacted in buoyant economies such as the United States, United Kingdom and Australia. So, while there may be a growing interest in retaining older workers in the workforce, this retention is set against an environment that remain not invitational to them. This sets older workers the task of 'cheerful striving'-- as are disabled workers -- as they encounter the situated embodiments of sentiment that places a lower value on them and the support that afforded them. This suggests that it is likely to be individuals' agency and capacity to be agentic that will become the key determinant of older workers' capacity to maintain competent throughout working life

Significance of individual agency and intentionality: The role of critical reflection

Given the need for older workers to maintain competency throughout working life, possibly in circumstances of inhibited access to external sources of support, the essential and key component of their capacity is their personal experience and agency. There is some agreement across diverse theories of learning that degree by which individuals engage in activities is constant with the level of learning outcomes. That is, full-bodied engagement by individuals is likely to have a legacy in terms of far richer learning than if their engagement is superficial. Therefore, at the heart of the ongoing process of learning through a working life is how individuals engage in the

task of learning new work processes and ways of working. There are, however, conflicting views about the degree by which this development is predicated on social support rather than individual agency alone. Even strongly socially subjecting situations, such as heavily monitored workplaces are unable to constrain the exercise by individuals of their agency and intentionality (Fenwick 2002; Billett 2003; Hodkinson, Hodkinson et al. 2004). When faced with difficult employment situations such as, unemployment or under employment, it is likely to be the older workers' personal agency (Bauer, Festner et al. 2004) and personal epistemology (Smith 2004) that will provide an effective response. Yet their sense of self identity which ultimately directs this agency is threatened and that times traumatised by these employment situations (Billett and Pavlova 2003; Hodkinson and Hodkinson 2004). Hence, the need for a personal epistemology that permit older workers to understand the complex and contradictory circumstance they face and position them in ways that both inform, but avoid the burden of personal blame. It is in these circumstances where critical reflection is most salient.

There are at least four premises for the role of individual agency and intentionality in the ongoing competence of older workers. Firstly, individuals' engagement with tasks and interactions is a necessary basis for the process of learning and development (Billett 2004). The process of learning and everyday thinking acting are in many ways the same. In both, the degree by which individuals engage and deploy their cognitive capacities and experiences shapes whether rich or weak learning transpires. Such outcomes are a product of the degree by which the individual elects to exercise their energy and intentionality when engaging with tasks and in interactions: goal directed activities. That is, what problems are worth solving for individuals (Goodnow 1990). So the epistemological activities of individuals need to engage with critical reflection to consider what is strategic and important for them. It seems workers in a textile-printing factory and in a forensic psychiatric clinic (Van Woerkom, 2003) demonstrated differences in their scope of critical reflection. While some workers like to think about organisational policy and 'the broad lines', others concentrated more on their work tasks at the minutiae level.

Secondly, the contributions to individuals' learning and development from social practices and social partners (society's gift) are distributed in different ways and by different degree(Archer 2000). As foreshadowed, the very kinds of gifts that older workers sought from the workplace are not available or may be inaccessible. This suggest that individual needs to be agentic *and critical* in engaging with and *reflecting upon* social sources and also in determining what knowledge they need to gain through interactions with social partners and social practices. The social genesis of knowledge and development is founded in a relational interdependence between individual and social contributions to individuals' learning and the remaking of cultural practices, such as those in paid work (Billett 2003). From the individuals' perspective, engagement in this interdependence needs to be informed in ways that are both purposeful and critically agentic so that they are able interact with the social world in ways that position them as informed, selective and canny participants.

Thirdly, individuals through their interactions with social partners and social practices play an important role in construing and constructing from the social experience (Billett 2004). Some claim that there is a significant mismatch between older workers' views of their employability and effectiveness and the perceptions of those who employ them (Patrickson and Ranzijn 2004). That is, individuals' gaze and subjectivities are important elements of the construction and subsequent remaking of the socially derive knowledge. This is doubly problematic because it is these workers' ability to be agentic in making contacts and developing further their skills that are held to be the likely basis of them achieving employment at the level that they believe reflects their capacities and contributions (Patrickson and Ranzijn 2004). So society's gift is not made uniformly, it is made through the interaction between the social experience and individuals' construction of that experience. Because individual subjectivities and intentionalities are an embodiment of their agency, it remains central to the process of learning

and development, including the remaking of practices in the workplace. This remaking of cultural practices as in paid work needs informing by the critical reflection, so as to refine, improve and transform and human needs and societal conditions change.

Fourthly, and because of this, the degree by which individuals will exercise their interest (i.e. agency and energy) shapes not only the learning process but also the kinds of knowledge that are learnt (Billett and Pavlova 2003; Hodkinson and Hodkinson 2004). Individuals exercise of effortful and demanding thinking and acting is not so much determined by external press, than individual interest and intentionality. Moreover, the kinds of critical reflective activities older workers engage in will is shaped by their sense of self (van Woerkom 2003). So, it is for these reasons that older workers' agency and intentionality stands as key elements in countering the ageing process, contested and differentiated levels of workplace affordances and in contributing to the process of maintaining their competence through negotiating self and purpose in their working lives. In particular, their sense of self is central to, yet vulnerable to the contradictory roles that older workers have to negotiate.

Critical Reflection: Older workers, development in prospect: dealing with contradictions

A personal epistemology based around critical reflection (Van Woerkom 2003) is a basis for individuals to agentically maintain competent throughout working life. Most conceptualisations of reflection share a rationalistic bias (Ellström, 1999) and consist of a phase models, where one step logically results from a previous step (Boud, Keogh & Walker, 1985; Kemmis & McTaggart, 1988; Korthagen, 1985; Marsick & Watkins, 1990; Van Bolhuis-Poortvliet & Snoek, 1997). However, in the messiness of everyday work practice, this model seems unrealistic. Also, many models approach reflection mainly as an individual and mental, instead of an interactive, dialogical action, while we know that feedback from others is generally considered to be necessary for learning to occur (Annett, 1969; Ellström, 1999; Frese & Altman, 1989, Marsick & Watkins, 1990). Also, the concept of reflection is embedded within a frame of reference individuals' internalisation of societal and cultural norms and values, making it a socially and historically embedded process, which is political, and thus shaped by ideology (Kemmis, 1985, in Garrick, 1998). In an attempt to address these concerns, critically reflective work behaviour can be conceptualised in terms of learning activities that are inseparably linked with the process of work (Van Woerkom 2004). In this way, critically reflective work behaviour comprises a set of connected activities carried out individually or in interaction with others, aimed at optimising individual or collective practices, or critically analysing and trying to change organisational or individual values.

Critically reflective work behaviour is strongly interrelated with a feeling of being invited to participate in the workplace (Van Woerkom, 2002). It requires that involvement in the workplace, being informed by how the organisation works at each level, and having the scope for solving problems and learning from mistakes. Workers feeling invited to participate are more likely to bring their critical reflection out in the open, engaging in for example critical opinionsharing, asking for feedback and challenging existing practices. When feeling not invited to participate, they may still be critically reflective, but more often on a small scale, in the environment of their own job or in an individual way. But also the reverse may be true; by acting critically reflective workers may become more part of the organisation, while by keeping quiet they run the risk of becoming invisible and forgotten by their managers. Just as well as the work environment can influence workers agency, workers can also influence their work environment by their agency. In a textile-printing factory, the workers in this factory were generally negative about their opportunities to participate (Van Woerkom, 2003a), however, some workers succeeded in creating themselves exceptional positions through their agency as a critically reflective worker. An operator who indicated she was not afraid to openly criticise work practices stated that she was often invited to participate in the organisation, but she also noticed that her colleagues were not so often asked to do this: "..., 'cos you know everything about it - just have a look and see if there are things that need to be altered.' But I said to him then, 'Let those other people who are working on that machine also have a look at it to see if they can make sense of it.'". Another operator succeeded in making his job more interesting by expanding his job by with extra control tasks.

Critically reflective work behaviour is also strongly interrelated with an experience of competence (Van Woerkom, 2003a) and implies a certain way of risk-taking behaviour. One has to have courage to withstand social pressure and be critical, to adopt a vulnerable position, and ask for feedback, to take a close look at one's performance and one's future career, and to experiment, instead of following the beaten track. People who feel confident of their competencies will sooner be prepared to take such 'risks'. On the other hand, by taking such risks, workers will stimulate their learning process, and thereby their experience of competence. All this is central for older workers agency and reflection.

Although situational factors are often emphasized in research into work-related learning, they alone are insufficient to understand workplaces as learning environments (Billet, 2004). Yet, sometimes, the demands and constraints of workplaces and individuals needs can simply not be bridged. Case studies in seven Dutch organizations in services and industry (Van Woerkom, 2003b) showed that sometimes jobs change so radically that the new demands are conflicting with the old demands and also with the identities of the workers. The operators in a call centre had to change their definition of competence from "always try to help a customer, no matter how much time it may take" into "bring the call promptly to an end in a charming way if questions from customers prove too time-consuming". The operators, mostly older women, had always taken great pride in helping clients with difficult questions and had developed al kinds of tools and manuals to do so. The operators who in the previous situation, used to be seen as the best operators, were in the new situation seen as the worst operators because they had developed a strong sense of professional identity and therefore put up the greatest resistance to the change. Many workers in a cheese factory, a packaging factory, and a textile-printing company were very fond of their 'old' competence being a traditional manual handicraft where each product could get their special attention. As a result of the computerisation of the production process they had to say goodbye to their old competence and accept what was sometimes a completely different competence. At the Post Office, counter clerks suddenly had to become commercially minded and to sell registered post. For some of them, this was conflicting so strongly with their own professional identity, that they could not put up with these demands.

In these cases, critical self-reflection and career awareness proved to be crucial. As a result of this, people become aware of their motives and the extent to which work satisfies their motives. Career awareness refers to the intention to match self-development with career development, and, if necessary, to orient towards opportunities outside one's current job or employer. However, it turned out that fear for the unknown is an important inhibiting factor for career awareness. Many employees refuse to focus on other opportunities outside their current job, even if they are unhappy in it.

Conclusion

Older workers seem to be caught up in a set of contradictions in maintaining their competence throughout the last decades of their working life. They are highly valued for their expertise and experience, reliability and self-management (Quintrell 2000). Yet, employers preferred to employ younger individuals and even invite older workers to retire early. Older workers' capacities, by most accounts, continue to be effective, albeit in different ways, then younger counterparts. Yet, this is not the kind of sentiment exists in the general community, one which promotes and favours youth and vitality, and deals cautiously and silently with age. Consequently, older workers are left to 'joyfully strive' in workplace environments that are often burdensome with their demands, yet meagre and selective with their support. These workers are reminded of the need to change, to remain current, to develop further skills. Yet, this is increasingly likely have to be undertaken in

their own time and at their own expense, and even in ways that might be hidden from their employers, least they be seen as demanding (high maintenance). Then, there is the brute fact of an ageing population and an inevitable growing reliance upon firstly older workers, and, secondly, older workers need to maintain the quality of life within countries where provisions for retirement are increasingly being seen as being the responsibility of the individual. So in the very changing environment that is requiring the intelligence, agency, skills and application of older workers, they might find that there needs are supplanted by enterprises and governments who are, it seems, scrambling to retain, support and court a shrinking population of young people.

While it is tempting to be optimistic and presumably that both government and enterprise sentiment will change with the growing reliance on older workers, there is also some room to be pessimistic. Disney and Hawks (2003) note that the increase in employment among older workers in United Kingdom is largely among those in their fifties (rather than older), more among women than men and, on balance, among more highly educated workers. In short, they conclude that it is the high demand for labour fuelled by a buoyant economy rather than policies and practices of engagement with older workers. This pessimism is also located in analogous circumstances elsewhere. The increased incidence of female participation in the workforce (another kind of reliance) has not led to an enhanced provision of support and engagement for those women. Where are the childcare centres? Where are the programs to support their development and promotion? Taking another instance, it has been acknowledged that small businesses contribute significantly to economic activity and employment (yet another kind of reliance). Moreover, many jobs now occupied by women have had their level of discretion and remuneration reduced. That is, the market driven, industry derived, and large enterprise orientated vocational education provisions failed to meet small business needs. These provisions are too often and too widely described as being inappropriate, in accessible and ill focused to raise confidence that smallbusiness needs for skill development arrangements are being taken seriously. It is analogous situation which faces many older workers, who are now being required to apply their agency in ever more demanding ways in order to maintain their sense of self and place in the workplace. The prospect of extra support, like that for small business and women, seems remote. In each instance, it is somebody else's business: in this case the older workers.

References

- Archer, M. S. (2000). <u>Being Human: the problem of agency</u>. Cambridge, Cambridge University Press.
- Baltes, P. B. and U. M. Staudinger (1996). Interactive minds in a life-span perspective.

 <u>Interactive Minds:Life-span perspectives on the Social Foundations of Cognition</u>. P. B. Baltes and U. M. Staudinger. Cambridge, Cambridge University Press: 1-34.
- Barley, S. (1996). "Technicians in the workplace: ethnographic evidence for bringing work into organisational studies." Administrative Science Quarterly **41**: 404-441.
- Bauer, J., D. Festner, et al. (2004). "The effects of epistemological beliefs on workplace learning." <u>Journal of Workplace Learning</u> **16**(5): 284-292.
- Bernhardt, A. (1999). "The future of low-wage jobs: Case Studies in the retail industry." <u>Institute</u> on Education and the Economy Working Paper **10**(March 1999).
- Bernhardt, A., M. Morris, et al. (1998). Work and opportunity in the post-industrial labor market, Institute on Education and the Economy: 1-4.
- Bierema, L. L. (2001). Women, Work, and Learning. <u>Sociocultural perspectives on learning through work</u>. T. Fenwick. San Francisco, Jossey Bass/Wiley: 53-62.
- Billett, S. (1994). Authenticity in workplace learning settings. <u>Cognition at work: the development of vocational expertise</u>. J. Stevenson. Adelaide, South Australia, National Centre for Vocational Education Research: 36-75.
- Billett, S. (2001). "Knowing in practice: Re-conceptualising vocational expertise." <u>Learning and Instruction</u> **11**(6): 431-452.

- Billett, S. (2001). "Learning throughout working life: Interdependencies at work." <u>Studies in</u> Continuing Education. **23**(1): 19-35.
- Billett, S. (2003). <u>Individualising the social socialising the individual</u>: <u>Interdependence between social and individual agency in vocational learning</u>. 11th Annual International conference on post-compulsory education and training: Enriching learning cultures, Gold Coast, Australian Academic Press.
- Billett, S. (2004). <u>Being competent: the relational interdependence between individual and social agency in working life. Keynote presentation.</u> European Association of Research on Learning and Instruction Professional Development SIG conference, Regensburg, Germany.
- Billett, S. (2004). "Co-participation at work: Learning through work and throughout working lives." Studies in the Education of Adults **36**(2): 190-205.
- Billett, S. and M. Pavlova (2003). <u>Learning through working life: individuals' agentic action, subjectivity and participation in work.</u> 11th Annual International conference on post-compulsory education and training: Enriching learning cultures, Gold Coast, Australian Academic Press.
- Billett, S. and A. Smith (2003). "Compliance, engagement and commitment: Increasing employer expenditure in training." <u>Journal of Vocational Education and Training</u>, **55**(3): 251-269.
- Billett, S. and M. Somerville (2004). "Transformations at work: Identity and learning." <u>Studies in Continuing Education</u> **26**(2): 309-326.
- Bishop, J. H. (1997). "What we know about employer provided training: A review of the literature." Research in Labour Economics **16**: 19-87.
- Brunello, G. (2001). On the complementarity between Education and Training in Europe., IZA discussion paper 309. (Forschungsinstituit zur Zukunft der Arbeit- IZA. (Institute for the Study of Labour).
- Brunello, G. and A. Medio (2001). "An explanation of International Differences in Education and Workplace Training." European Economic Review **45**(2): 307-322.
- Church, K. (2004). <u>Dancing Lessons: A Choreography of Disability in Corporate Culture</u>. WALL Annual Meeting, Toronto, OISE/University of Toronto.
- Cook-Gumperez, J. and K. Hanna (1997). Some recent issues of professional literacy and practice. <u>Changing work, Changing workers: Critical perspectives on language, literacy and skills.</u> G. Hull. New York, State University of New York Press: 316-334.
- Danford, A. (1998). "Teamworking and labour regulation in the autocomponents industry. vol 12, no 3 pp.409-431." Work, Employment & Society 12(3): 409-31.
- Darrah, C. N. (1996). <u>Learning and Work: An Exploration in Industrial Ethnography.</u> New York, Garland Publishing.
- Darrah, C. N. (1997). Complicating the concept of skill requirements: Scenes from a workplace.

 <u>Changing work, Changing workers: Critical perspectives on language, literacy and skills.</u>
 G. Hull. New York, CUNY Press: 249-272.
- Davis, D. D. (1995). Form, function and strategy in boundaryless organisations. <u>The Changing Nature of Work</u>. A. Howard. San Francisco, Jossey-Bass Publishers.
- Disney, R. and D. Hawkes (2003). Declining employment of older workers: has Britian turned the corner? London, Institute for Fiscal Studies, Centre of Research on Ageing: 24.
- Fenwick, T. (2002). "Lady, Inc.: women learning, negotiating subjectivity in entrepreneurial discourses." <u>International Journal of Lifelong Education</u> **21**(2): 162-177.
- Giddens, A. (1997). Sociology. Cambridge, Polity Press.
- Giraud, O. (2002). Firms' further training practices and social exclusion: can industrial relations systems provide greater equality? Theoretical and empirical evidence from Germany and France. Education, training and employment dynamics: transitional labour markets in the European Union. K. Schoman and P. J. Connell. Cheltenham, Edward Elgar.

- Goodnow, J. J. (1990). The socialisation of cognition: what's involved? <u>Cultural Psychology</u>. J. W. Stigler, R. A. Shweder and G. Herdt. Cambridge, UK, Cambridge University Press: 259-286.
- Grubb, W. N. (1996). Working in the middle: Strengthening education and training for the midskilled labor force. San Francisco, Jossey Bass.
- Hodkinson, P. H. and H. Hodkinson (in press). "The significance of individuals' dispositions in the workplace learning: a Case study of two teachers." <u>Journal of Education and Work</u>.
- Hodkinson, P. H., H. Hodkinson, et al. (In press). "The significance of individual biography in workplace learning." <u>Studies in the Education of Adults</u>.
- Hughes, K. and A. Bernhardt (1999). Market segmentation and the restructuring of banking jobs. New York, Institute on Education and the Economy: 1-4.
- Lave, J. and E. Wenger (1991). <u>Situated learning legitimate peripheral participation</u>. Cambridge, UK, Cambridge University Press.
- Leuven, E. and H. Oosterbeek (1999). "The Demand and Supply of Work related Training: Evidence from Four Countries." <u>Research in Labour Economics</u> **18**: 303-330.
- Lipsig-Mumme, C. (1996). <u>Bridging the solitudes: Canadian perspectives on Research</u>

 <u>Partnerships in the New Work Order (Keynote Address)</u>. ANTARAC Annual Conference, Melbourne.
- Martin, L. M. W. and S. Scribner (1991). "Laboratory for cognitive studies of work: A case study of the intellectual implications of a new technology." <u>Teachers College Record</u> **92**(4): 582-602.
- Patrickson, M. and R. Ranzijn (2004). Employability of older workers. Adelaide, National Centre for Vocational Education Research.
- Quintrell, M. (2000). "Older and wiser; or just at the end of the line?" Westminster Studies in Education 23: 19-31.
- Shima, S. (1998). "Reconceptualizing Part-time Employment." Work, Employment & Society **12**(2): 375-378.
- Sigelman, C. K. (1999). <u>Life-span Human Development</u>. Pacific Grove, Brooks/Cole Publishing Company.
- Smith, A. and S. Billett (2003). Enhancing Employers' Expenditure on Training. Adelaide, National Centre for Vocational Education Research.
- Smith, R. J. (2004). Necessity in action: The epistemological agency of the new employee. Faculty of Education. Brisbane, Griffith University.
- Solomon, N. (1999). Culture and difference in workplace learning. <u>Understanding Learning at Work</u>. D. Boud and D. J. Garrick. London, Routledge: 119-131.
- Tikkanen, T., L. Lahn, P Ward & K Lyng. (2002). Working life changes and training of older workers. Trondheim, Vox.
- Tilly, C. (1991). "Reasons for the growth of part-time employment." <u>Monthly Labor</u> Review(118): 10-11.
- Van Woerkom, M., Nijhof, W.J. & Nieuwenhuis, L.F.M. (2002) Critical reflective working behaviour: A survey research. *Journal of European Industrial Training*, 26, 375-383.
- Van Woerkom, M. (2003a) *Critical reflection at work. Bridging individual and organisational learning.* Enschede: University of Twente (dissertation).
- Van Woerkom, M., Nijhof, W.J., & Nieuwenhuis, L. (2003b) The relationship between critical reflection and learning. Experiences within Dutch companies. In: Nyhan, B., Kelleher, M., Cressey, P. & Poell, R. *Facing up to the learning organization challenge. Selected European writings.* Volume II. Luxembourg: Cedefop.
- Van Woerkom, M. (2004) The concept of critical reflection and its implications for human resource development. *Advances in Developing Human Resources*, 6, 178-193.
- Wall, T. D. and P. R. Jackson (1995). New manufacturing initiatives and shopfloor job design. The changing nature of work. A. Howard. San Francisco, Jossey-Bass.

- Whalley, P. and S. R. Barley (1997). Technical work in the division of labor: Stalking the wily anomaly. <u>Between Craft and Science: Technical work in U.S. settings.</u> S. R. Barley and J. E. Orr. Ithaca NY, Cornell University Press.: 24-52.
- Zuboff, S. (1988). <u>In the age of the smart machine: The future of work and power</u>. New York, Basic Books.