

Transformations at work: Identity and learning

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Abstract

This paper examines how identity and learning are constituted and transformed at work. Its central concern is how individuals engage agentially in and learn through workplace practices, and in ways that transform work. Drawing upon recent research into work and participation in workplaces, the negotiated and contested relationship between workplace practices and individuals' identity and intentionality, and learning is illuminated and discussed. For instance, aged care workers and coal miners acquire work injuries that are almost emblematic of their work identity. Only particularly dramatic events (i.e. serious illness or workplace accidents) wholly transform their identity and views about work practice – their subjectivities (Somerville 2002). However, it is through the agentic actions of these individuals – that workplace practices are can be transformed. Yet, individuals' agentic action is not necessarily directed to the abstracted and de-contextualised economic and civic goals (Field 2000) privileged in lifelong learning policies (Edwards, Ranson & Strain 2002). Instead, there is relational interdependency between the individual and work that can act to sustain or transform both self and their work. Individuals' agentic action is exercised within these relations in ways directed by their subjectivities. So these relations and that agentic action has policy and practice implications for the conduct of work and learning through and for work.

Identity and learning

This paper seeks to explore the related issues of individual subjectivity and learning throughout working life, and the transformation of working and learning identities. It proposes that policy associated with learning throughout working life (e.g. lifelong learning) needs to focus as much on individual agency as on the social press to which individuals are subjected (i.e. changing demands of work). In our explorations, the self seems directed less towards the abstracted governmental goal of enterprising workers (Du Gay, 1996) or their 'helping themselves' in supporting civil society (Field, 2000). Instead, the formation and transformation of self appears to proceed through, and be directed towards, an entwining, intertwining and entanglement (Fenwick, 1998, 2002) between the individuals and their social subjectivities, that can lead to the transformation of the self and learning for and in the workplace. It is this reflexive action that Giddens (1991) proposes as being a product of increasing fluidity and uncertainty in individuals' lives, such as in the churning and changing world of paid employment, including the increasingly fragility of a definable vocation.

The paper also takes up the invitation of Edwards, Ranson and Strain (2002) for empirical accounts of the existing conditions for reflexive processes of lifelong learning, and those that can explain the nature of this learning. In doing so it uses analyses of both macro and micro social practices and individual intentionality in studies of working lives. It emphasises self in terms of subjectivity and intentionality and how these are engendered, exercised and transformed through engagement with workplace practices. The paper draws on research work carried out by the authors in a number of workplaces including hairdressing, aged care, coal mining and motor mechanic workplaces. Although not intended as the principal focus of these studies, issues associated with individual subjectivity and agency emerged across these studies. Questions of the relationship between the individual and the social have been the particular focus of social psychology and feminist post-structuralism. Social psychology has moved from an individualistic conception of agency towards a more social understanding of the individual (e.g. Valsiner 2000, Rogoff 1990, Scribner 1997, Cole 1998, Engstrom 1993, Wertsch 1998); feminist post-structuralism has departed from a Foucauldian social determinism towards addressing the question of how individual agency can be theorised. Billett's previous work has elucidated how working and learning identities are co-constructed through workplace affordances and co-participatory practices (Billett 2002). Somerville's previous work has focussed mainly on the construction of gendered subjectivities in the workplace and what this means for workplace learning (2002). The paper is an attempt to bring these diverse theoretical formulations of subjectivity, identity and agency into conversation with newly emerging ideas about workplace learning. Our case is based on four interrelated proposals:

Firstly, the process of individual engagement with the social world (such as the workplace or communities in which work occurs) is premised on a relational interdependence between the individual and the social world. That is, the individual and the social world are co-constitutive. This relational interdependence has been theorised from the perspective of cultural psychology (Valsiner, 1994) and from a post structural theoretical framework (Foucault, 1979; Davies, 2000). The concept of storylines (Sondergaard, 2003), through which social discourses are taken up by individuals, enables us to analyse how individuals take up their identities in the workplace through the texts generated from interview data.

Secondly, the processes of thinking, acting, and learning at work are one and the same and coincident, (Lave, 1993; Rogoff, 1995) and include the formation of

working and learning identities or subjectivities (Lave & Wenger, 1991). That is, the conscious process of engaging in activities and interactions that requires the deployment of individuals' knowledge is not separable from changes to that knowledge: learning. This process is both shaped by, and in turn shapes, individual identities, that directs intentional conscious thought, monitors existing learnt processes and mediates how individuals engage with social suggestion they encounter in and about work.

Thirdly, that mediation is, at least in part, shaped by individual identities and subjectivities. What individuals experience will often be quite person-dependent because individual ontogenies and, consequently, ontogenetic development are unique in some ways. That is, the construction of concepts, procedures and objects are shaped by what individuals have experienced through their lives (Rogoff, 1990; Scribner, 1985; Vygotsky, 1978). Moreover, that experience is mediated by individuals' knowing, knowledge and sense of identity with its attendant dispositions and values that mediate that experience (Bloomer and Hodkinson, 2000; Hodkinson and Hodkinson, in press). These identities and subjectivities are therefore seen as being a product of the social world but appropriated by individuals in particular ways and for particular purposes (Leontyev, 1981).

Fourthly, transformations in the workplace are the product of individuals remaking or reconstituting (transforming) practice. These transformations are not separate from, or conceivable without, individuals' active involvement and engagement. Cultural change such as that which occurs in workplaces will be a product of relational interactions between the socially-derived activities or technologies and individuals who will deploy them (Rogoff, 1990).

In the following sections, these propositions are elaborated to discuss learning and identity formation, the relational nature of those processes and individuals' role in transforming work and work requirements.

Individual engagement is premised on relational interdependence with social agency

The process of individual engagement with the social world (such as the workplace or communities in which work occurs) is premised on a relational interdependence between the individual and the social world. Dewey (1887 cited in Valsiner & van de Veer 2000) proposes individuals experience is the product of their intellect engaging with sensations (i.e. that arising through the social world). However, this definition of experience as intentional and active engagement may exclude the subtle yet ubiquitous social suggestions that are encountered almost unconsciously in the conduct of daily life. These are analogous to what Bourdieu (1991) refers to as habitus: the battery of clues, cues and models that suggest and guide conduct, proposed by Bloomer and Hodkinson (2000) as having a legacy in terms of a portfolio of dispositions that which shape how they engage with the social world and with what intent. Yet, there are different relations between individuals and the social world. This battery of social suggestion is experienced in different ways and/or construed differently (Newman, Griffith, Cole 1989). Foucault (1979) suggests that individuals become subjected to the social world through the discourses and discursive practices of the social, primarily through language. In this way, the stories workers tell about their work and learning reveals the storylines through which their subjectivities are constituted in the workplace. These worker subjectivities have a particular relationship to learning.

The subjectivity of coal miners, for instance, was found to be constituted within a strong hegemonic masculine culture of aggression, competitiveness and risk-

taking which was at odds with the Company's new training in safe work practices (Somerville, 2002). The culture of mine work is handed down inter-generationally in mining communities. The mines as workplaces are described as "closed communities" where workplace practices are highly regulated by social pressure of subjugation. Mine workers tell stories of consistent harassment of other workers, especially bosses, or those who are different and they link these practices to the stress of a dangerous environment; "I guess it's a bit of a release and a relief from the, the pressure and the other, the other stresses that just come with being underground, being in a, it's a hostile environment". Aggressive humour is an important means of dealing with a dangerous work environment, "the hairier things get" the more important humour is (Somerville, 2002). This was, in turn, associated with "a very strong mateship, ... you really had to trust the bloke who was standing beside you". Humour is used to control expressions of weakness in dangerous situations where workers depend on other team members for their safety or even their life. Nicknames are a common expression of this type of masculine workplace humour. For example, one worker indicated that team members who do not pull their weight are called "suitcase" or "pothole", another way of ensuring team support in unsafe working conditions.

A culture of masculine competitiveness has been characteristically cultivated in mining workplaces because of its relationship to production (Somerville, 2002). The mineworkers described competitiveness as the basis of the mining industry and many of those interviewed commented on the intersection of discourses of competitiveness and production and the conflict between production and safety that is played out in the bodies of the workers. As one worker put it, "To be competitive, that's the system we use. If we're not competitive, the mines closed and that's where it is". Older workers, in particular, are portrayed as being steeped in a culture of production where the workers cut corners instead of being safe. While there appears to have been a marked change in the relationship between production and safety promoted by the company, participants suggested that many workers still cut corners to save time and energy. Younger participants continue to maintain that saving hours by cutting corners and lifting things that are too heavy is justified even though they add that "it might go against them later" in terms of chronic back injury.

According to most of the participants, young workers regard themselves as invincible, believing they "can lift anything, do anything, carry anything" without damage to their bodies. These younger workers themselves admit that, "there is stuff where you can lift it but you probably shouldn't be. Well there's a lot, there's heaps of that". They reported that older workers, on the other hand, want to prove that they are still as strong as they were when young, "blokes go and lift things they shouldn't because they want to show themselves they can still do it". Masculine peer pressure supports unsafe work behaviours, preventing workers from expressing problems and admitting mistakes or weakness. Another less spectacular, but even more pervasive, aspect of risk taking behaviour is the attitude to wearing protective gear. It was reported that the mine workers do not like wearing a lot of protective gear because it is seen as a sign of feminine weakness; "A lot of people won't wear gloves even like - you tart, y'know to protect their fingers". A similar response is reported when a worker is offered pink boots, and asks that they be thrown in the rubbish bin because of their connotation of femaleness and thus weakness. While the social press for mine workers was strongly supportive of hegemonic masculine work practices, there were nevertheless some mineworkers who persisted in asserting their difference, either through natural inclination or through a self-conscious process of transformation.

So social interactions can be of the close interpersonal or proximal kind what, that is often referred to in educational literature on teaching or guided learning that aims to secure intersubjectivity or shared understanding between a more experienced and less experienced social partner. However, there is also the more pervasive forms of social suggestion that comprises social norms and practices that individuals are subjected to and represent potentially pervasive social press, such as conceptualised as habitus (Bourdieu, 1991) or subjectification (Foucault, 1979). It is these forms of social suggestion that individuals elect to appropriate, transform or ignore. Both close guidance and the more distal forms of social suggestion do more than shape behaviour in the immediate circumstance, they also have a cognitive legacy in the form of permanent or semi-permanent change in individuals: learning.

No separation between thinking, learning and identity (trans)formation

It follows, then that the processes of thinking, acting, and learning at work are simultaneous, (Lave, 1993; Rogoff, 1995) and include the formation of working identities or subjectivities (Lave & Wenger, 1991). Lave (1993) concluded that wherever you encounter practice, you also identify learning. Rogoff (1995) similarly emphasises the central role of participation in learning. Across these theories, and consistent with cognitive views (e.g. Anderson, 1993), the consequences of individuals' engagement in goal-directed activities is more than achieving those activities' goals, there is also a cognitive legacy: change that is shaped by this experience (Anzai & Simon, 1979; Newell & Simon, 1972). Vygotskian and Piagetian constructivist perspectives, hold that in deploying our cognitive resources when engaging in tasks and interactions, cognitive change results (Billett, 1996). These and cognitive theories suggest the scope of change is likely to be influenced by the novelty of the activity to individuals and the degree of effort they elect to engage in when undertaking activity (Newell & Simon, 1972). So the kind of impasse or perturbation that constitutes individuals' responses shapes the kind and extent of cognitive change (Van Lehn, 1998). In a range of industry sectors, where no college based preparation or ongoing professional development exists (i.e. coalmining, food processing) workers reported largely learning their often quite skilful work through everyday work activity (Billett, 2001). Detailed analyses of the micro-social processes that individuals engage in and the social sourcing of the knowledge in the workplace indicates how this learning occurs (Billett, 2003a). The conscious process of engaging in activities and interactions that secures knowledge is not separable from changes to their knowledge: learning. This process is both shaped by, and in turn shapes, individual identities.

Few aged care workers, for example, choose aged care as a vocation before they begin work in the industry (Somerville, 2003). They begin work in aged care for pragmatic reasons, it is not an intrinsic part of their subjectivities. However, once they are working in aged care they experience a growing passion and commitment to their work, that is, it becomes part of their sense of self. This process through which doing the care work becomes part of the care workers' identity begins early in their careers, and was described by a trainee Assistant in Nursing as "entwining":

It's that rewarding. I actually washed a man's slippers the other day because they were really smelly and dirty. Anyway, I went and soaked them in the bucket and gave them a scrub and put them out in the sun cos it was a lovely hot sunny day. Anyway, its that rewarding and that, I feel like I'm that entwined with the position I'm in and the job that I'm in, when I was at home I'm

thinking, ‘oh no, I felt his slippers out in the sun, what if it rains?’ you know, and I was gunna ring work and say ‘look can you go and get so and so’s slippers and put ‘em in, and check ‘em. You know, little things like that you always think. (trainee)

This is a storyline common to all levels of care workers, and while it is not necessarily true of every care worker, it is the basis of care worker’s engagement in, and commitment to, a low status, poorly paid job with stressful and often physically arduous working conditions, “you know people say ‘well you know it’s not much money’, I said ‘well I don’t care’, for me. The money helps but for me it’s rewarding and I just love it. I just love it, I just love being with the residents. If I can make a difference in their life that’s my reward”. Understanding this process of entwining, through which workers take up care work as a part of their identity, is fundamental to understanding the workplace learning that takes place there. The more care workers are engaged in and committed to their work because it is part of who they take themselves to be, the greater level of learning will take place as a result of participating in their work practices.

Entry-level care workers participate in this process of identity shaping in an agentic way because there is a range of subject positions to take up in the workplace (Somerville, 2003). Another trainee reflects on the range of subject positions and how these will constitute her new workplace identity. She reported that her buddy, the person responsible for her initial workplace learning during her first two or three shifts, conformed to the sort of worker she would like to become.

Oh well Mary was very explanatory with what, what she did but I think she, you gotta ask the questions, I don’t think she would have been so forthcoming with information if I wasn’t sitting there and ‘why did you do that’ and you know you just, and Mary’s got a very good attitude towards the residents and I really picked on that, like picked that up, that her, she respects them, she doesn’t talk down to them and things like that like I’ve noticed the others, I’m glad I got stuck with her, if it was someone else who wasn’t, didn’t respect the residents so much, which I’ve seen down there, I probably would have been very, oh my god I don’t want to come back here tomorrow if they’re gonna be like that or if I’m gonna turn out like that. (trainee)

This trainee is aware that the exchange with buddies is a critical learning experience that she expresses as a two way process of interaction. The learning process is critical in the formation of worker and learner subjectivities and this worker suggests that the exchange may make her “turn out like that” and if this were the case her option would be to withdraw from participation in the workplace.

In these accounts there is little distinction between the engagement in thinking and acting and the process of cognitive change and transformation of identity. Identity and its transformation are central to these processes and internally shaped by them. Individual learning, which includes the construction of their identities, is ongoing in everyday conscious thought. This is not reserved for particular learning moments (i.e. significant events) or situations (i.e. those designated for intentional learning – schools). It is a product of everyday conscious thought, which is active in seeking to make sense of what is encountered, as constructivist theories hold. Giddens (1991) refers to individuals seeking to balance what they encounter with their own goals and interests. Similarly, Piaget (1968) and more recently von Glaserfeld (1987) refer

respectively to individuals seeking to maintain their equilibrium or viability with what they encounter. Importantly, this drive to secure the self likely energises and directs individual learning.

So, there exists a close, yet reciprocal interdependent relationship between individuals' sense of self and identity and their learning. Given that individuals play an active role in constructing meaning from what they encounter, this suggests that a focus on learning for change, working life, participation in the workplace needs to account for individuals' sense of self and identity, which are both shaped by and shape their agency and intentionality.

The importance of individual agency and intentionality

Individuals' identity and subjectivities shapes the agentic action and intentionality that constitutes the self. The degree to which individuals engage with what they encounter and what learning arises, is in part, person-dependent, because of the uniqueness of each individual's cognitive experience (Valsiner, 2000); their pre-mediate experience. This uniqueness arises from the distinct and individual pathway that constitutes individuals' ontogenies - personal histories. So individuals' construction of self is person dependent, as individual ontogenies and ontogenetic development are unique because their prior experience is not and cannot be the same as others as it is individually negotiated through a lifetime of interactions with the social world. Hence, individuals' ontogenetic experience is diverse. Moreover, the means of social suggestion are never complete (Berger & Luckman, 1967) or the social suggestion capable of a uniform effect (Valsiner, 1998). Indeed, Newman, Griffin and Cole (1989) suggest that if such socialisation efforts were effective there would be no need to communicate because socially-derived understandings would be uniformly understood. Instead, individuals responding to the same policy documents on learning societies engage in re-contextualising and re-negotiating meaning (Edwards & Boreham, 2003), thereby reflecting localised and individualised imperatives. Harre suggests, "personality becomes socially guided and individually constructed in the course of human life. People are born as potential persons, in the process of becoming actual persons takes place through individual transformations of social experience"(Harre 1995 373). The diversity of individuals' personal history and vocational pathways and the process of negotiation they comprise was well illustrated in a recent study of learning throughout working life (Billett & Pavlova, 2003). Each of the five participants had had highly varied pathways to their current work role, and reported that their pathways had influenced how they thought about and engaged in their work.

For example, during an interview about his working life, Jim reflected upon both his and his subordinates' approach to work as motor mechanics. It was a conversation that emphasised the fluctuating relationships among identity, engagement in work and learning. He referred to the initial enthusiasm of school students' engagement in work experience programs at the garage, and their enjoyment at being allowed to undertake authentic work activities. He also noted how first-year apprentices initially were keen to work after normal working hours putting cars away each evening. They received overtime for this and were initially grateful for both the responsibility and the extra pay. Initially, they were also accepting of being responsible for tidying up the workshop at the end of each day. However, as they progressed through their apprenticeship they came to resent these menial tasks and the amount of overtime paid for these additional duties. Yet, they were enthusiastic about being given more complex and responsible tasks, such as conducting routine services

on new vehicles, albeit under supervision. Later, they were eager to be offered tasks that were more complex than servicing new vehicles or those that comprised just the replacement of parts. As they progressed towards the completion of their apprenticeship, Jim noted that apprentices were often disrespectful towards and dismissive of more experienced mechanics and were quick to leave at the end of the working day. He put this down to them being ready to move on to another workplace, where they could practice in a work environment different from where they had learnt their trade.

Then, referring to himself and other mechanics he had known, he noted a time when after qualifying to become a mechanic there was a questioning of whether this was what you wanted to do for the rest of your life. For instance, just a year prior to the interview Jim had decided never to work as a mechanic again. Yet, having tried a few other jobs, a year later he had a job as a supervisor of a large motor workshop. He worked long hours, many of which were voluntary, derived much personal satisfaction and immensely enjoyed his job that included hands-on mechanical work. He referred to a number of other mechanics who had also questioned whether they would continue on as mechanics. Some currently in his workshop had been through this kind of experience and had now resolved their dilemma and reconciled themselves to continuing as a mechanic. Not that this was always a compromise. In ways analogous to his own commitment, Jim noted the older mechanics were more likely to be concerned to complete a job before leaving work. It was they, rather than the younger mechanics, who would request overtime in order to complete a job and be concerned about precision and thoroughness in their work.

The knowledge encountered through engagement with social world, such as in workplaces, and the energy or agency an individual deploys when interacting with that knowledge is likely to be central to what they learn. That is, in what way they constitute the concepts and practices they encounter. Different bases exist for those encounters and what individuals construct. Therefore, how individuals engage in workplace tasks is central to the learning that occurs. This engagement is, at least, in part shaped by individuals' identities. Jim, the workshop supervisor, referred to the wavering and changing engagement of apprentices during their indenture and work beyond their apprenticeships. Similarly, hairdressers were quite strategic about selecting the kind of salons that they wish to work in (Billett, 2003b). This is associated with their identity as a hairdresser and desire to practice in circumstances that reflected their self-construction of that identity. These instances provide different accounts of relationships between identity and learning. The mechanics engage in tasks enthusiastically that reflect their evolving identity as mechanics from work experience, through apprenticeship and in their post trade development. The aged care workers embrace their role, building upon care giving within the family or connections with the community (Somerville, 2003). However, some of these workers reported gaining passion and interest in their work as they came to know the individuals that they cared for. So, rather than the abstract concept of occupation, it was the reality of their role that forged their identity with their practice. The coal workers engage in their work in ways validated by their community and under the direct tutelage of more experience workers. Given the potential dangers of this work, the need to work together, be trusted and reliable in their responses may be used as justification for these values. The engagement and learning of these workers is therefore associated with securing, developing and fulfilling work identities associated with difficult, tough and potentially dangerous work. That is, they actively participate in and appropriate core values and practices associated with their work.

However, despite this engagement is not a process inevitably leading to unquestioned appropriation or socialisation. There is a relational basis for their engagement and learning. This relationship is founded upon the intensity of individual agency (e.g. the interests and dispositions), on the one hand, and the intensity of the social agency (i.e. the kind of affordances that are provided) on the other. These forms of agency are exercised and engaged in constructing the self and learning through work. The mechanics question the worth of their work and whether they wish to continue to be identified with and engaged in the work of car mechanics. Yet, in exercising their agency, individuals' actions also work to remake cultural practices.

Transformations in the workplace are a product of individuals remaking practice

A central issue for cultural practices, such as those that constitute paid work, is their transmission and remaking across time. This process is achieved not through some uniform wave of change that propels each new generation of practitioners. Instead, it appears to be a process where individuals actively play a role in remaking and refining these cultural practices as they confront particular problems and adopt new technologies in addressing those problems. So, the cultural heritage is remade incrementally, individually and yet in ways that constitute a pattern of change. At the heart of this change process are changing environments, requirements and technologies that are a product of evolving history. Structuralist views suggest that the social determines change and represents the locus of new learning or change. However, other views suggest that it is the actions of individuals in shaping responses to these changing circumstances that constitutes the vanguard of cultural transformation (Leontyev, 1981; Rogoff, 1990; Valsiner, 1998). Hodges (1989), when faced with practices that were contrary to her values and beliefs, elected to dis-identify and withdraw from that practice. However, in the authors' work there are examples of workers who elected to participate in and transform practices that were inconsistent with their values and beliefs. For instance, the dramatic experience of an aged care nurse, through a workplace injury, led to her focus upon improving work practices in the industry sector (Somerville 2003). She exercises energy and intentionality in her efforts to transform (improve) practice. In the same sector, the appropriateness of behaviour in dealing with the deceased was transformed by the agentic action of one worker, who raised issues of sensitivity that had not been adopted as practice in that aged care setting. In a mortuary that performs colonial autopsies, one counsellor succeeded in changing the processes of counselling the next of kin that transformed the operation and practice not only of the counsellors, but also other workers in the facility (Billett, Barker, & Herson-Tinning, in press). That individual's belief about appropriate counselling, the opportunity to advance his view, and an invitational environment in which he was afforded professional standing all contributed to his transforming the counselling activity. The organisational capacity and energy of one worker also transformed how a small business operated in a wholesale fruit and vegetable market (Billett & Pavlova, 2003). These instances of changing practices illuminate the possibilities for individuals to make significant changes to the conduct of their work, the requirements for performance and what constitutes effective practice. They represent instances of change processes that occur in workplaces, perhaps far more widely than is understood.

The point here is that the formation of self: the act of negotiating the kind of crises of identity that Jim referred to as well as through everyday events as part of working life are likely to be salient for individuals' learning and their engagement in

transformatory events, such as the remaking of work as it transforms across their working life. The self both energises and directs the intentionality required for robust learning from events individuals encounter, yet the self can be transformed by these very events. As Fenwick (1998) proposes, the self is not just reflexive of socially-derived subjectivities and practices, it has intentionality that is personally directive. So individuals' identity can play more than a reflexive role in responses to these events (i.e. what is learnt) and in turn can be reshaped by particularly traumatic events (i.e. formation or in reinforcement of identity, dis-identification).

Some aged care workers described transformations in their identities and learning that resulted in transformations in workplace practice. One worker identified her first experience of death as a point of transformation in her work practice through the telling of two stories. Learning about death and dying is described as a kind of initiation ritual in the process of the formation of their working and learning identities, it is a critical rite of passage. This particular aged care nurse described how she had all the appropriate preparatory training in death and dying, but the experience was distressing because of workplace practices that were incongruent with her belief system. In addition, the trained nurses who attended to the body, and from whom she would have expected to learn, transgressed the boundaries of what she believed to be respectful and ethical practice. This nurse engages in critical reflection of the naturalised practices into which she is being indoctrinated and decides that she will choose not to do her work in this way. This is where the worker exercises intentionality and agency, choosing not to take up workplace practices and to learn differently. She describes this experience as a turning point and the source of a long process of transformational learning. This transformational learning led to a conscious change in career direction, specialising in palliative care, and long term self directed learning. This learning involved reading the theoretical and research literature in the field and getting together with a small group of workers who shared her ideas, "we spent a lot of time discussing issues like that and, yeah it was a great opportunity to synthesise I suppose your own experience and your own gut feelings about how things ought to be with the literature and the research and other people's ideas". This was the beginning of workplace transformation brought about by this individual.

In transformational learning, workers draw on all forms of learning – theoretical and practical, formal and informal, personal and social, to enable the transition that such a transformation involves. This transformational learning is then transferred into the workplace as the transformed worker takes up new worker/learner subjectivities, "we just used to, as part of our ongoing conversations I suppose, exchange thoughts about what we'd been reading and, because I was so involved with education, I used to do some education for the volunteers, so we'd get to talk about different ideas". It is this learning in a group, the sharing of ideas that are alternative to the accepted practice that carries the process of workplace change. These changes are not restricted to the organisation in which they are first instituted. This nurse has been involved in substantial changes in a number of workplaces as she changes her job because of this new career direction.

Coal miners also witness or experience events that cause them to question work practices and hence their worker subjectivities (Somerville, 2002). One mineworker described how he decided to become a supervisor, placing him in a contested relationship to much of the workplace practices and community values to which he had previously identified. In particular, traumatic events and workers response to those events has been shown to lead to a questioning of identity and the kind of workplace and community subjectivities that individuals find themselves

subject to and have often willingly appropriated (Somerville, 2002). These events were not some inevitable and unfolding stage in individuals' life histories, nor were the outcomes predictable (i.e. they did not always lead to socially critical outcomes). However, they did cause transformation in individuals' identities and their focus upon and approach to work. They also disrupted one set of subjectivities allowing others to play a role. Yet, the action and changes that transpired were, at least in part, a product of the individuals' intentionality. The disruption to the subjectivities, led to a transformation of identity and the appropriation of new kinds of subjectivities (e.g. safer working practices, more ethical approaches to work, healthy lifestyle).

In the case of two coal workers, this transformation illuminates the powerful role of subjectivity and learning. One had been seriously injured in a mine site accident. The other had experienced a life-threatening health problem due to mine workers' lifestyle (i.e. heavy consumption of alcohol and unhealthy diet). In both cases, these events lead to a reappraisal of the subjectivities that had directed their behaviour and work practices. This led to both disassociating with these subjectivities. However, both experienced frustration and rebuttals as they attempted to get others to question their practices and lifestyle. But even having experienced similar traumatic events, others were still uncritically subject to those practices. So the process of dis-identification (Hodges, 1998) which these two miners had encountered was in contrast to the continuing identification with mining work practices of other workers. While the same barrage of social press existed, these workers construed it differently. Moreover, the change of identity was reinforced by the realisation of their incapacity to disrupt others' subjection to the set of social suggestions that they had rejected. So, in seeking to understand how individuals engage with, ignore or embrace change in their working lives at a time of frequent and sometimes significant change in the requirements of work and work practices, it is important to understand the relationships between individuals' identity, subjectivity and intentionality and how they engage in responding to changes in the workplace, and themselves change through that engagement, and how factors outside of the workplace act to shape that identity and subjectivity.

In a recent inquiry, it was found that five workers, who are the project participants, all experienced significant change in their workplace over a period of about seven months (Billett & Pavlova, 2003). Against what is often reported in the literature about the de-skilling, marginalisation and alienation of contemporary working life brought about by such changes, each of these individuals benefited from these changes. In four of the five instances, the changes were actually consistent with and buttressed the individuals' career trajectories. That is, these changes provided the vehicle by which they could enact their preferences, gain greater security in their work, practice fulfilling and personally rewarding work and direct energies into projects that were closely associated with their identity and values. Of course, others associated with these participants were identified as not faring so well. However, the evidence suggests that these changes provided the context for individuals to play a constructive role in changing of practice and in ways that were consistent with their interests and career trajectories. Leontyev (1981) identified this process of remaking culture as being a product of individuals' active engagement in and appropriation of particular cultural practices and values. He proposes that "through activity, human beings change the environment, and through that change they build their own novel psychological functions (1981 p 195). In their efforts to learn about the new goods and service tax, it was found that the key basis for directing their learning, who and how was consulted and the degree of effort sustained in learning about this new

initiative was dependent upon the small business operators' identity and intentionality. The response to this uniform initiative was diverse in its scope, attention and enactment. Even when compelled to conform to particular practices, it was individuals who decided how they would respond which included the construction of this initiative.

All this suggests that rather than being wholly subject to change, individuals are actively engaged in remaking cultural practices, such as those required for effective work practice. The change or learning that arises from everyday and novel events is associated with how individuals direct their intentionalities and agency when engaging with what they experience through these events. Individual experiences in social practices, such as workplaces, will incrementally, and at times, transformationally contribute to changes in their ways of knowing and sense of self (identity). Individuals' subjectivity both shapes the kind of changes that occur and is itself shaped by events, particularly singularly dramatic events, because it shapes their response to those events. It is perhaps as Rogoff (1990) suggests, the engagement of individuals in solving novel problems that are generated by culturally and historically derived knowledge confronting new circumstances through which culture and cultural practices are remade.

Implications for policy and practice

Much of what has been argued above refers to the relational and relative interdependence between the social lived world consisting of paid work and individuals personal agency that is itself shaped by socially derived subjectivities and practices (social agency). That is, the complex and constructed relations between individual intentionality (their agentic actions) and the social subjectivities, practices and norms that arise from social and cultural practices, such as paid work and what occurs in workplaces. This is what Giddens (1991) refers to as the reflexive negotiation of the self as individuals come to terms with transforming communities and societies and practices, such as those in workplaces. Whereas the relations between individuals and social practices are not always engaged nor intensely negotiated, work likely represents an instance where the engagement and negotiation that constitutes the relative relational interdependence is likely to be intense, but nevertheless negotiated. This is because of the salience of identity, intentionality and subjectivity of individuals as workers (Pusey, 2003) and the centrality of the culturally and situationally constituted practice of work activities to workplaces. This suggest that in policy formulation a greater account, acknowledgement and privileging needs to be given to individuals' intentionality and subjectivity in considering how best workers might continue to learn and develop throughout their working lives. However, current lifelong learning policies focus upon a particular kind of worker identity; the enterprising worker (Du Gay, 1996). As Edwards and Boreham (2003) argue this focus is misplaced and inappropriate as it is directed at goals that are based on assumptions about the self as being compliant to de-contextualised and abstracted societal goals (i.e. governmental objectives for economic performance and societal cohesion), rather than those reflecting localised and individualised subjectivities of the kind that direct individuals efforts and intentionalities.

Highlighting this mismatch between policy focus and localised and individualised goals is important for two key reasons. Individuals' learning and development will likely arise most strongly when the focus for the demanding process of development is related in some way to their interest, concerns or identity. As

argued above, individuals are more likely to deploy their energies and conscious thought in a directed and sustained way when issues of importance are the focus of their thinking and acting. Similarly, there are clear links between engagement in conscious thought and learning. This learning is, however, a product of the reciprocal interaction between individual and the social experience. What learning will occur cannot be predetermined; this is a product of negotiation, circumstances, individuals' dispositions and interests, and just plain energy. The learning arising through workplace experiences may be quite different from what was intended or afforded by the workplace. Therefore, focuses on issues, interests or situations that are central to the individual will more likely lead to richer learning outcomes than those which do not entertain the individual.

Secondly, whether considering the current initial or ongoing vocational education provisions or lifelong learning policies, much of the emphasis is on a particular view of the self. The key focus is on the needs and interests of industry, government, employers and unions in vocational education. Moreover, lifelong learning policies are being increasingly directed towards the individuals' development in terms also of workplace performance (Organisation for Economic Cooperation and Development, 1998; 2000), rather than their needs and intentionalities (Edwards et al., 2002). While the learning of skills and skillfulness is just one part of developing successful economies it may not be possible to easily separate out transformation of the development of these skills from transformations in their identities and subjectivities. Therefore, in order to secure a better balance, considerations for policy might want to focus more on individuals' identity, subjectivity and intentionality. This is not just to provide a focus that is a more appropriate consideration of learning and transformation, it is also to humanise the goals and processes of lifelong learning.

A focus on individuals' subjectivities and identities

It follows that policies and practices associated with ongoing vocational development needs to acknowledge and account for individuals' interests and intentionality. Similarly, lifelong learning needs to be understood as something that is constituted by the self, albeit socially mediated. A policy prescription is just that. Individuals will likely work to construct the direction, focus and intensity of their ongoing learning -- their enterprising self -- for work, based upon their interests and intentionalities. All this is well captured by the expansive Deweyian notion of vocation (Dewey, 1916). Just as curriculum prescriptions are intents, that may or may not be realised, the learners are ultimately the construction of the curriculum; regardless of what is enacted.

Much of the effort associated with attempts to organise learning is directed towards achieving intersubjectivity -- shared understanding. This goal of shared understanding is normally premised on the assumption that the less experienced partner (e.g. the novice, the student) will come to share the understandings and practices of the more experienced partner (teacher, workplace expert). This assumption, however, has some flaws in it. There is also a need to move beyond existing practices and understanding, despite their utility in present and past circumstances. The goal of securing intersubjectivity may fail to fully account for the process of knowledge construction that is in many ways unique to individuals (Gergen, 1994), rather than being common. Even with an objectified entity such as language there is unlikely to be commonality or much shared understanding. Partners who have worked or cohabited together may come to share many, understandings. However, there will likely have quite different conceptions outside of those that are

regularly the focus of intersubjective constituting activities. All this suggests that a focus on the self is not about being selfish, individual or singular. It reflects the kind of cognitive terrain that individuals will constitute as they engage in thinking processes that have their geneses in unique personal histories. So learning for work and changing work requirements might best be focused not at securing intersubjectivity as a single goal, but enriching individuals' constructions of their vocational practice as it comes to confront new challenges. Interests, subjectivities and intentionalities that are socially structured yet unique to individuals as they confront situations and circumstances that are socially structured yet unique in localised manifestations. While such goals may be at odds with uniform program goals, they appear to reflect more closely the evolving needs of vocational practice and the processes of agentially derived learning. This is not to suggest an abandonment of goals derived elsewhere (e.g. safer working practices) but that these goals need to be achieved in ways that included consideration of the learners and their engagement in directing that learning. It is about engaging the enterprising self in ways that meet both the localised requirements of particular workplaces and the individualised requirements of the self.

Inviting individuals to participate in transforming practice

Technical and societal change occurs through a process that may be driven by social factors (Leontyev, 1981; Rogoff, 1995) but its construction and enactment is also in part a product of individuals engaging with tasks and goals and reinventing and transforming them (Leontyev, 1981) in particular circumstances and at particular moments in time. Change is not a uniform or deterministic process, (like some tidal wave) it is given meaning in particular circumstances as the requirement for change is shaped both by the circumstances and by the actors engaged. Its various manifestations are mediated by individuals' construction of it. At a particular moment in history, each generation is involved in this transformative process of enacting change. Often changes are required because the existing practices are inadequate. It is individuals' engagement with and transformation of the existing practices that constitutes change. Therefore, individuals are often at the vanguard of change. Therefore, rather than conceptualising individuals as being mere implementers of change processes, individuals should be invited to contribute to those transformations. That is, to exercise existing and emerging ideas in the context in which they think and act in practice. It is only through the uptake of a commitment to change by individuals that it can be sustained.

It follows then that individuals are active participants in remaking culture (eg work practices, technical innovations and values associated with work), albeit in a relational and relative sense. Therefore, instead of top-down implementation strategies, ongoing development for work and learning throughout working life should be seen as being more reciprocal, with individuals invited to assist in the transformation of existing practices. That invitation is to legitimise their participation in the thinking acting and learning associated with change. So the issue of work, identity and learning are not novel or restricted to current times and transformations of work and working life. They represent, however, perhaps an under-appreciated and neglected focus for research, policy and practice in adult learning.

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