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Epistemological agency and the new employee

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The necessary learning actions new employees must undertake to meet the performance requirements of their new job may be said to constitute a constructivist epistemology of necessity. This view forms a useful basis of inquiry into new employee workplace learning as it seeks to explicate the significance of what new employees 'do' in and through their learning. This paper briefly outlines the rationale and findings of one such inquiry. It proposes that what new employees 'do' may be best conceptualised as exercising their epistemological agency. An interpretive analysis of this 'doing', through a framework that identified the mediating factors of new employee learning, characterises the new employee-learner as a manager of their personal workplace learning agenda. It gives new emphasis to the role of the individual in the social construction of knowledge. Such an understanding of the new employee-learner suggests possibilities for enhancing a sociocultural constructivist view of learning that seeks to account for the personal purpose and consequence of learning.

Necessity in action: new employee learning

The necessary learning actions new employees must undertake to meet the performance requirements of their new job may be said to constitute a constructivist epistemology of necessity. This learning necessity may be evidenced in two fundamental ways.

Firstly, learning can be viewed as a necessity of the demands of its context (Lave 1993). That is, learning is an inevitable consequence of circumstances that require working (Harris, Willis, Simons & Underwood 1998). Workplaces are not venues of inactivity. They are sites of goal-orientated activities that make demands of their participants. New employee learning is, therefore, necessitated by the contextual requirement of work. Production purposes, both for and not for profit, can mask the numerous workplace practices that together achieve the primary work activity goals (Noon & Blyton 1997). Learning practices as such may be indistinguishable from production-orientated practices (Billett 2001b). In any workplace, new employee learning, whether supported or otherwise, may be viewed as the unavoidable consequence of the contextual requirement to work. The new employee will have something to do. Doing something is the learning (Rogoff & Lave 1984) that the workplace necessitates.

Secondly, learning can be viewed as the necessity of individual agency (Fuhrer 1993, Wertsch 1995), as indispensable personal involvement in workplace activities. The personal choices and decisions that new employees make at work, together with the equally personal thoughts and actions that underlie the exercise of this agency, represent the unavoidable learning that is the new employee's personal response to the workplace. Learning is a necessity of the new employee's condition. Their need to learn in part defines them as new. This need may be minimal – perhaps little more than new names and terminology to remember or new routes to and from work to calculate. Alternatively, this need may be significant – marking

the very beginnings of a new career that will require prolonged and sustained effort before acceptable workplace performance is realised. This learning necessitates personal agency. Learners need to be selective, discriminating; that is, regulative of their actions as they evaluate and choose from the wealth of information contained in their situation (Valsiner 1998).

The new employee's ability to contend with this necessity may be found in the qualities of the workplace, that is, the degree to which the workplace enables or affords the necessary learning (Billett 2001a). Concomitantly, their learning may be viewed as a personal predicament, a self-defining circumstance through which their efforts and capacities for learning will be utilised and tested (Goodnow 1990). In this way, new employee learning may be viewed as the inevitable experience of their situation. The indispensable thoughts and actions that constitute this personal experience define it as learning necessity – “If we are thinking and acting, we are learning” (Billett 2001b: 6).

Personal agency and learning at work

An epistemology of necessity views learning as the conjunction of contextual and agentic necessities. Such a view forms a useful basis of inquiry into new employee workplace learning. It seeks to explicate the significance of what new employees ‘do’ in and for their learning through contextually-based issues related to the workplace and the learning environment it represents. These issues include workplace cultural practices related to power and status distribution (Napier & Gershenfeld 1999), procedural practices that constitute the flow of products and knowledge throughout the workplace (Billett 2001b) and issues related to basic working conditions such as starting and finishing times, accessibility and amenities provision (Noon & Blyton 1997).

Similarly, personal agency-based issues that include the willingness of the new employee to engage in the required workplace practices (Olekalns 1999) and their receptivity to and acceptance of the learning contingencies their work practices afford (Billett 2001b) need explication. Preferred learning styles and abilities to utilise prior learning (Harris et al. 1998), personal lifestyle priorities and expectations that give purpose to motives and intentions at work (Channer 2000), communication issues that influence how new employees and their workplaces interpret each other's questions and instructions, attitudes and decisions (Rogoff 1995) and the negotiation that shapes shared understandings such as performance indicators and what constitutes controversy and conflict and its resolution within the workplace (Noon & Blyton 1997) may all prove significant.

These issues are indicative of the problematic nature of workplace success for new employees and highlight the complexity of considerations necessary to gain an understanding of their learning at work. Importantly, these issues begin to address the dialectical basis of workplace learning necessity as a co-participatory practice established by the new employee and the workplace (Billett 2001a, Valsiner 1994). That is, workplace learning, what is learned and how it is learned, and the subsequent performance success it may or may not generate for its participants, is the conditional outcome of the interaction between the new employee and their workplace.

Working perspectives of epistemological agency

It is the nature of this interaction that is the focus here. Specifically, this paper reviews the findings of research that sought to understand new employees' learning through its conceptualisation as the exercise of epistemological agency – a term used in recognition of knowledge as conditional beyond personal beliefs (Bauer et al. 2004), practised

through social activity (Leontev 1981) and personally utilised across all life domains (Schommer 1998).

Epistemological agency can be defined as the personal practice of constructing knowledge (Smith 2004). New employee learning, as such, may be understood as an individual's active, consequential and iterative, regenerative and transformative engagement with their workplace. It is a 'lived out' dialectical experience, which makes it above all, personally intentional, purposeful (Harris et al. 1998). It is this purposeful aspect of agency that the two dominant constructivist conceptions of knowledge do little to illuminate. They are cognitive psychology and sociocultural constructivism.

Cognitive psychology, through its dominantly internal conception of knowledge construction, renders epistemological agency as individually idiosyncratic, that is, as specifically characteristic of the individual learner. Learning, despite being viewed as universally developmental within the province of the mind through active memory (Piaget 1968), is the personal process of using idiosyncratically organised cognitive structures to make sense of or represent new knowledge. It does not seek to identify the sources of, nor how the nature of these sources mitigates, such constructions. Similarly, sociocultural constructivism, through its dominantly external conception of knowledge construction, renders epistemological agency as individually idiosyncratic. Appropriation, the process of socioculturally sourced knowledge construction (Rogoff 1990), acknowledges the participant lead co-construction of knowledge through negotiation and reinterpretation from within its contextual constraints, its communities of practice (Rogoff 1990, Lave & Wenger 1991). It cannot account for what types of knowledge will be constructed and how that knowledge will be personally utilised in any particular practice that characterises the context from which it is generated. These failures to account for the idiosyncrasies that shape knowledge discount the purposeful practices that generate it

and, in part, deny the learner's epistemological agency. Exploring these failings requires an examination of personal experience that may reveal the intention and purpose implicit in the individual's epistemological agency.

As an act of epistemological agency, new employee learning is self-regulatory, deliberate, intentional, and therefore indicative of the evaluations and decisions that predicate agency (Harris et al. 1998). Learning has personal purpose that must be accounted for by theories that seek to define it. It is therefore important to acknowledge the role of the individual in the social construction of learning and to focus accounts of learning on the learner, in this case, adult new employees.

Researching epistemological agency

The investigation described and discussed here explores how the purposeful nature of epistemological agency can be identified and analysed. The goal for the investigation was to address the questions:

- What constitutes the epistemological agency of the new employee?
- How and on what basis might it be enacted in the initial stages of their employment?

There were three participants in this investigation, all new employees. Michael – a salesman/buyer, Chris – a storeman/packer and Alice – a packer, voluntarily participated in the research that was conducted through the first six months of their employment with FruitCo, a wholesale fruit and vegetable business operating in the central market of an Australian capital city. Their work, the preparation and packing of fresh produce for delivery, requires no training qualifications and none of them had specific previous experience of this work. Michael, in his early twenties, came from work in a fast food chain and was passionate about high performance vehicles. Chris, in his late teens, had picked fruit and worked for a demolition company. Alice, a mother of teenage children and in her early forties, had worked many part-time jobs.

The ethnographic study used extensive participant observation and multiple semi-structured interviews to gather and verify data that captured the work practices and personal motivations and intentions of the three participants. The initial coding and analysis generated a set of five useful explanatory categories that acted to gather the dominant influences mediating the new employees' learning practices. Together, these categories created a framework that enabled an interpretive analysis of their epistemological agency as personally mediated learning.

The framework consists of five mediational categories. They are:

- time
- the organisation
- motivation
- learning strategies
- identity

Each of these categories supports the aggregation of individual actions as interrelated mediational practices in which learners are actively engaged. 'Time' convokes influences of its perception, management and imposition on learning. 'The organisation' concerns issues of the workplace culture. 'Motivation' considers the necessity and goals of learning. 'Learning strategies' acknowledges prior learning, experience and its deployment, while 'identity' examines issues of the self, its roles, responsibilities and capacities to meet the demands of its situation. Together, these categories affirm an understanding of epistemological agency as the new employee's personal and pragmatic construction of knowledge in the workplace across a broad range of personal and contextual mediational means. The purchase provided by these categories and their utility in understanding the epistemological actions of new employees as learners is elaborated in the next section.

Viewing new employee learning through the mediated learning framework of epistemological agency

Michael, Chris and Alice could be described as successful self-directed learners. Given the conditions of minimal learning guidance and support afforded them by their employer, their success as new employee learners is evidenced by a willingness to persist in their learning and their capacities to manage that learning. Persistence implies the willful decision of the new employees to continue in the course of action necessitated by their new jobs despite opposition. At FruitCo, this opposition comes from its limited provision of learning support. New employees were expected to do their job with little instruction and access to more experienced staff. Opposition is likewise founded in the personal barriers and limitations that hinder learning. For example, lifestyle choices that reduce sleep and cause fatigue prior to work or poor communication skills that inhibit the fostering of workplace relationships can represent oppositions to learning that require willful personal persistence to overcome. Management similarly infers the volition and desires of the three new employees. It implies their considered decisions and the subsequent actions that regulate the pursuit of their goals. It does not necessarily equate with success in the sense that goals are realised and outcomes are expected and planned for. Rather, it denotes a demonstrated willingness personally to guide and control those factors that influence and direct actions. These qualities of persistence and management are clearly articulated by the framework as interpretable characteristics of the epistemological agency of the three new employees.

To illustrate, the new employees' actions across all categories of the framework demonstrate self-management and contextual-management practices. For example, within 'time', all three of the new employees demonstrate an evaluative awareness of their work tasks in relation to the duration, arrangement and utilisation (Noon & Blyton 1997) of time necessary (personal) and time required

(contextual) to successfully complete their tasks. Their efforts are directed towards balancing these competing time pressures. Alice intentionally slows down – taking the time to get things right saves time. Michael checks his order list – the time necessary includes review and assessment time. Chris stops occasionally – reflection time is a component of the time necessary to complete his tasks. In these different ways, the new employees, in part, manage their learning and workplace performance as a function of their management of time.

Further, within 'the organisation', factors such as product quality and customer expectation represent necessary information the new employees must have if they are to perform their work successfully. Accessing the different workplace knowledge bases that hold this information (Billett 2001b) requires the fostering and maintenance of numerous inter-personal relationships. The personal communications management this demands equates with the new employees' matching necessary information for the specific situation with the appropriate co-worker with sufficient access affordability. That is, knowing who knows what and how to relate to them is a management skill based on interpersonal communications. Within this management capacity, Michael is identified as more skilled than Alice and Chris. His conversational ease with staff and customers, in combination with his relationship with his bosses, contrasts sharply with Chris'. Chris, however, is no less in control of his learning in this regard. Less skilful than Michael, he nevertheless demonstrates management practices that evidence his autonomy and personal priorities.

Within 'learning strategies', Chris' choice of what learning to attend to when being reprimanded by the boss clearly reveals this autonomy and priority in action. Such management practices are both brought to the job as previous experience and developed on the job as situated learning (Harris et al. 1998). They in part constitute the learning skills and strategies purposefully and considerately deployed by Michael,

Chris and Alice who each demonstrate an understanding of the consequences of getting it wrong or poorly managing their learning.

Within ‘motivation’, the reasons and purposes underlie their searching out, accepting and working to maintain their employment at FruitCo. These, together with the actions necessary to their workplace participation, constitute the motivations that could be said to evidence the establishment and development of the new employees’ agendas. When motivation is understood in this way as a product of all the actions necessary to secure and maintain their employment, the new employees’ learning may be viewed as the management of their personal agendas. Their agendas are more than the requirements of their job descriptions. Their agendas are the actions that must be undertaken to secure the reasons and purposes of their employment. The agenda represents the manifest of motivations, that which has to be done. Of course, not everything that has to be done, will be done. Michael, Chris and Alice are not construed as automatons driven by personal management practices that preclude the irrational and/or uncharacteristic. Unfounded fears and abilities, fatigue and forgetfulness, serendipity and surprise, wonder and amazement are no less probable for new employees in the workplace than for anyone. The unfathomable is not discounted by the necessities of practice in context. For the new employees, there are unmistakable necessities that dominate in the otherwise unimaginable possibilities their engagement in the workplace could generate. Meeting the necessities means doing what has to be done, however inconsistently, creatively or improbably it is accomplished. Doing so equates with managing their personal agendas.

Within ‘identity’, the ‘who’ that is managing their agenda can be seen as a complex set of identities (Ryan & Deci 2003) that constitute the self. Managing the self’s agenda requires the capacity and willingness to adopt workplace identities that reflect the necessary group affiliations the new employees establish. The private and independent

individual becomes a co-worker, a staff team member, who in turn becomes a company representative. These different performance roles must be self-regulated and controlled (Baumeister 2001), that is, managed and developed. The new employees learn how to be team members and what is required of company representatives. As they manage this learning, their agendas grow and subsume the new reasons and purposes of engagement in workplace activities that attach to their variously operant identities. For example, Alice negotiates her boss’ acceptance of a condition of her employment that she be able to go home during the morning and get her daughter off to work and then return to complete her hours. The private and independent Alice appreciates the freedom this affords her to prioritise her family concerns. However, as Alice begins to identify herself as a staff team member, she realises how her personal priorities impact negatively on the team’s efforts. Her absence means more work for the rest of the team. She acknowledges this on those days when she does not have to attend to her daughter and is able to contribute fully to the team workload. She recognises and enjoys the team’s achievements and her new self-identity as a team member. Similarly, Michael is developing the identity of himself as a salesman who represents the company. His increasing communications with customers and suppliers necessitate his actions on behalf of FruitCo. He wants and welcomes his developing new ‘we’ identity. The subsumption of these new identities and associated new actions in new agendas reveals, in part, the individual’s active co-participation (Billett 2001a) in the co-construction of knowledge (Valsiner 1994) that results from their interaction with the cultural requirements of the workplace. Their work necessitates the expansion of the self’s identity set. Their capacities as managers of their learning-agendas enable this expansion.

Utilising a sociocultural constructivist view of learning and development (e.g. Vygotsky 1978, Leont’ev 1981, Rogoff 1990, Wertsch 1998), these findings propose the need to privilege the

actions of the learner within the influences of the social origins of knowledge. Further, it is asserted that the individual learner is best understood in their active role as the agent who, through the necessity of their situation, personally imbues their learning with intentionality and goal-oriented purposes. To view this as merely idiosyncratic is to discount the volition and power of the individual learner to shape their immediate and post-mediate circumstance. Additionally, such discounting denies the transformative qualities of learning to influence and change the context in which the learner is engaged (Rogoff & Lave 1984, Renshaw 1998). The learner is understood as an agent, exercising their agency in the personal construction of the knowledge necessary for their participation in the activities of the workplace. This agency is best conceptualised as epistemological agency. It is elaborated through the mediated learning framework as a concept that encapsulates the necessary actions and purposeful intentionality of the adult learner.

Defining epistemological agency

The findings here tentatively move the definition of epistemological agency as the personal practice of constructing knowledge to the amended, personally mediated practice of constructing knowledge. This amendment acknowledges all action as mediated action (Wertsch 1995) and thus accounts for its contextuality as the interaction of personal and situational cultures (Valsiner 1994). This definition privileges the individual subject with a regulative role that enables some personal control over the external influences that impact their learning. Personally constructing knowledge becomes participatory appropriation (Rogoff 1995) that is transformational of both the learner and their context, in this case, the worker and the workplace. It remains, however, the learner who governs the nature of their participation in the practices necessitated by their context, the learner who substantiates any transformation.

As the research progresses to observe and analyse the actions of Michael, Chris and Alice, numerous metaphors for learning emerge as descriptors of their workplace activities. The new employees *respond* to and are *productive* of the necessities of their workplace. Time is *utilised* and *manipulated*, relationships are *negotiated* and *managed*, learning strategies are *assessed* and *deployed*, motivations are *promoted* and *engaged*, identities are *established* and *enacted*. Further, information is *accessed*, products are *differentiated*, procedures are *familiarised*, customers *recognised*, actions *prioritised* and decisions *taken*. What Michael, Chris and Alice ‘do’ is most fully captured by the descriptive action metaphor of ‘manage’. That is, they take charge of the conduct and accomplishments of their actions at work. Additionally, what their actions constitute is most fully captured by the descriptive collection metaphor of ‘agenda’. What they manage is their agendas. Their agendas equate to the reasons and purposes of their working, that is, all those mediated actions necessitated by their engagement in the practices required of their new job.

Epistemological agency is therefore more fully defined as the personal management of the necessary mediational means and actions that constitute the new employees’ workplace-learning agendas. The nature of the items on this agenda is identifiable through the framework. Qualifying this agenda as the workplace-learning agenda properly contextualises its contents. Thus, succinctly stated, epistemological agency is the personal management of the individual new employee’s workplace-learning agenda (Smith 2004).

Some implications of epistemological agency for sociocultural constructivist learning theories

The analysis above tentatively demonstrates the significance and salience for learners in the exercise of their epistemological agency. Their respective workplace-learning agendas can be seen to expand and reprioritise in directions that are consistent with and observable

through the mediated learning framework. This movement in their agendas can be said to evidence the knowledge construction that is accomplished through the exercise of epistemological agency. From this directionality of learning arise two key issues that impact sociocultural constructivist learning theories.

Firstly, epistemological agency suggests that knowledge that expands the individual's agenda in ways commensurate with their management capacities will characterise their initial engagement in their new job. These are the actions of the independent self-identity, the 'I' who arrives at work with established ways of knowing, established ways of managing the actions this encounter will necessitate. The mediated learning framework indicates how the individual's agenda may expand relative to this foundation. So for example, Chris, who initially did not know all the products listed on the packing sheet and would simply choose whatever was at hand in the hope that his error would later be pointed out to him, comes to understand this trial and error approach to product selection as inappropriate. He alters his learning strategies to reflect this necessary change in his workplace-learning agenda and persists with his questioning of the other staff, a task made difficult by the lack of learning support afforded him. Had he not done so soon enough, it is reasonable to assume he would have been sacked. Epistemological agency has learning directional qualities that are evidenced through movements in the individual's workplace-learning agenda. These movements are the knowledge in use (Lave 1993), that is, sociocultural knowledge construction (Rogoff 1990).

Similarly, these learning directional qualities may be indicative of learner resistance and incapacities. Michael, Chris and Alice not only learn to solve the problems their work presents, they also decide what problems are worth solving (Goodnow 1990), in whose interests, and how much effort they will expend in solving them (Harris et al. 1998). The three employees' avoidance of the boss, reputedly a 'hard' man

who sacks people on a whim, is a clear example. The numerous and valid personal reasons that support this choice of action temporarily deny the three new employees access to a rich information source that potentially affords them increased learning support. Equally, this choice of action temporarily weakens the threat of discomfort or perhaps job loss that the boss represents. Their management of this particular relationship, revealed primarily through the organisation category of the mediated learning framework, supports an agenda that initially reflects resistance to expansion within this area of the category. In this way, epistemological agency has learning directional qualities that may be interpreted as indicative of resistance to learning, inappropriate learning or failure to learn.

Secondly, epistemological agency involves the negotiation and shared acceptance of workplace understandings that create congruence between the individual new employee and the workplace. The mediated learning framework enables an analysis of the mediational moments (Wertsch 1995) that comprise this congruence. These moments can be read as the individual new employee's agenda. Similarly, the workplace may be viewed as a set of moments that represent its agenda for the management of the activities that occur within it. As knowledge is co-constructed, expansion of these different agendas may correspond to a growing congruence between the new employee and their workplace. When this expansion is managed similarly by the new employee and the workplace, intersubjectivities, that is, shared understandings, may be seen to develop. This collision of cultures (Valsiner 1994), workplace and personal, is the contested terrain (Billett 2001b) in which the conflict of competing agendas establishes the epistemology of necessity that is the learning experience of the new employee. That experience is best conceptualised as the exercise of epistemological agency.

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About the author

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~~Lifelong, life wide or life sentence?~~

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~~This paper examines the life wide dimensions of lifelong learning. Although the benefits of a life wide approach to learning are well recognised, there appears to be little explicit attention given to the concept of life wide learning in Australia. It is argued that recent pronouncements by the Australian Government about the challenges of an ageing population would be better informed by reference to lifelong learning that includes its life wide dimensions, rather than continued concentration on formal learning.~~

Introduction

~~This paper examines the life wide dimensions of lifelong learning in light of recent pronouncements by the Australian Government regarding the challenges posed by an ageing population. It argues that government responses to predicted economic problems would be~~