Epistemological agency and the new employee.

Raymond Smith
School of Vocational, Technology and Arts Education, Faculty of
Education, Griffith University.

Research Paper

Key words: workplace learning, new employee, agency, self-managed learning.

Abstract: *This paper reports research that sought to explore how the individually purposeful nature of new employee workplace learning might be understood through its conception as epistemological agency, that is, the personally mediated construction of knowledge. Using a sociocultural constructivist perspective on learning as necessary action-in-context, the research asserts that the intentionality of the new employee learner should be privileged within the process and product of the social origins of knowledge. The ethnographic study proposes that the actions of its participants can be interpreted within a framework that accounts for the major influences on their learning as mediational means. It goes on to suggest that these mediations comprise an individualised workplace agenda that is purposefully managed by the new employee. Epistemological agency is defined and presented as a conception of learning that captures the new employees' taking charge of the conduct and accomplishments of their actions at work. That is, as their self-management of learning.*

Raymond Smith: I am an intending Phd candidate currently engaged in research in the field of adult and workplace learning through the Faculty of Education, Griffith University. Many years as an educator and employer have engendered in me a strong desire to more fully understand and thus encourage the rich cultural and personal potential of learning in and through work.

Address: 5 Hawick St., Ashgrove. 4060

Phone: 0417606862

Email: raymond.smith@griffith.edu.au

Epistemological agency and the new employee.

Key words: workplace learning, new employee, agency, self-managed learning.

Abstract: *This paper reports research that sought to explore how the individually purposeful nature of new employee workplace learning might be understood through its conception as epistemological agency, that is, the personally mediated construction of knowledge. Using a sociocultural constructivist perspective on learning as necessary action-in-context, the research asserts that the intentionality of the new employee learner should be privileged within the process and product of the social origins of knowledge. The ethnographic study proposes that the actions of its participants can be interpreted within a framework that accounts for the major influences on their learning as mediational means. It goes on to suggest that these mediations comprise an individualised workplace agenda that is purposefully managed by the new employee. Epistemological agency is defined and presented as a conception of learning that captures the new employees' taking charge of the conduct and accomplishments of their actions at work. That is, as the self-management of learning.*

New employee-learner agency.

A new job can be daunting, possibly intimidating, in the degree of personal challenge and confrontation it represents for new employees. New learning will be required, new relationships fostered, new responsibilities and new agendas will prioritise the new necessities of new workplace practices (Harris et al 1998, Williams 2002). To be successful, new employees will need to meet the demands of the difference this newness represents for them. Likewise, a new job can be encouraging, potentially supportive, of new employees in the degree of opportunity and reward it offers. New skills may be developed, new resources accessed, new pathways into an unfolding future may be opened as new affordances and invitations are extended by the new workplace (Billett 2001a, Williams 2002). Consideration of any of these 'new' variables raises questions that address the problematic nature of workplace success and the learning it necessitates. For example, how will the new learning that initiates the employee into the workplace proceed? What, and importantly who, will determine the nature of this learning and new employee participation in their workplace? What influences will encourage or hinder new employee learning? Such questions provide an opportunity for inquiry into what is termed here, an epistemology of necessity. That is, the necessary learning actions new employees must undertake to meet the performance requirements of their new job.

An epistemology of necessity views learning as the conjunction of contextual and agentic necessities. That is, workplace learning, what is learned and how it is learned, and the performance success it may or may not generate for its participants, is conditional on the necessary interaction between new employees and their workplace. It focuses on learning as necessary actions-in-context and seeks to explicate the significance of what new employees 'do' in and through their learning.

Importantly, it begins 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).

As such, this focus addresses contextually based issues related to the workplace and the learning environment it represents. Workplaces are not venues of inactivity. They are sites of goal orientated activities that make demands upon their participants. New employee learning is, therefore, necessitated by the contextual requirement of work. New employees will have something to do. Doing something is the learning (Rogoff & Lave, 1984) that the workplace necessitates. Similarly, this focus addresses personal agency based issues. Learning is a necessity of the new employee's condition. Their need to learn in part defines them as new. Learners need to be selective, discriminating, regulative of their actions as they evaluate and choose from the wealth of information contained in their situation (Valsiner 1998). "If we are thinking and acting, we are learning" (Billett 2001b:6). New employee learning, therefore, can be said to be a personal necessity that is obviated by the thoughts and actions that accompany the experience of their need to know what is required of them.

Utilising this sociocultural constructivist view of learning, with its basis in action-in-context (e.g., Vygotsky 1978, Leont'ev 1981, Rogoff 1990, Wertsch 1998), the research reported here argues that there is a need to privilege the actions of the learner within the influences of the social origins of knowledge. Further, it asserts that the individual new employee-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 purpose. 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. Learning has personal purpose that must be accounted for (Scribner 1997). 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 exercising their agency in the personal construction of the knowledge necessary for their participation in the workplace. Their learning should be viewed as self-regulatory, deliberate, a 'lived out' dialectical experience, that makes it above all, personally intentional, purposeful (Harris et al, 1998), and therefore indicative of the evaluations and decisions that predicate agency. This agency is best conceptualised as epistemological agency.

The research explored how the purposeful nature of epistemological agency might be identified and described. It's task was to examine how best to understand and answer the questions;

1. What constitutes the epistemological agency of the new employee, and,
2. How and on what basis might it be enacted in the initial stages of employment?

Exploring epistemological agency

The research was conducted through an ethnographic study involving three new employees within FruitCo, a wholesale fruit and vegetable business. Michael, Chris and Alice, were the three of ten new employees who started work at FruitCo over the six-month period of the study and had not quit or been sacked. They remained members of the average six-person team employed to prepare and pack orders for delivery and had worked five months, three months and two months respectively.

As a fellow new employee, the researcher engaged in the study as an 'active-member-researcher' (Adler & Adler, 1994). This established the researcher as an insider with a genuine situational identity engaged in the collaborative social interaction that is interpretive ethnographic data (Angrosino & Mays de Perez 2003). Extensive interviews and verification sessions with Michael, Chris and Alice generated a wealth of data that presented the research as an interpretive practice of both the researcher and the new employee participants. Together they sought to understand the volition and mediations of the learning experience of the three volunteer participants.

Numerous analytical dichotomies provide a means of entry into the personal in context. Such antinomies as individualism and structuralism, psychological and social, agency and culture are clear examples. The latter of these, agency and culture, represents an analytical means of examining what happens in particular contexts - what, how and why people do what they do. Its focus is on activities and relationships. What generates from such an examination is a list of "dialectically interacting moments" (Wertsch 1995: 60) that capture the relevant aspects of individual agency in cultural activity. These moments or aspects of action are the mediational factors that are necessary to analysis and understanding of agency and are themselves actions. Any analysis of action "must be grounded squarely in the irreducible tension between mediational means and the individual using them" (Wertsch 1995:64).

New employee agency at work

FruitCo is a demanding workplace. It can be viewed as a socially structured space in which the personal cultures of new employees necessarily interact with the culture of the workplace. These cultures are not fixed entities that simply meet in contest but are rather dynamic, interdependent, mutually constituting activities that fuse and separate, transform and develop through their reciprocal actions (Valsiner 1994).

The actions of the three new employees, Michael, Chris and Alice are simultaneously responsive to and productive of this reciprocity. Further, their actions may be understood as their exercise of epistemological agency, the necessary actions that mediate and are mediated by their learning. This epistemological agency can be observed through an analytical framework that comprises five interrelated categories of mediation. They are:

1. Time
2. The Organisation
3. Learning Strategies
4. Motivation
5. Identity

Together, these categories enable an analysis of what actions the new employees take in the necessity of learning their new jobs.

Time categorises the new employees' personal perception and management of time, together with the workplace imposition of time, as major influences in their learning. The Organisation explores the influence of the different relationships the new employees must establish as the means of accessing the information that is necessary to their participation in the workplace. Learning strategies

outlines the learning skills and strategies the new employees deploy and develop in learning to do their jobs. Motivation examines the necessity of learning as the basis on which the new employee is prompted to willfully engage in the practices of the workplace. Identity illustrates how the self can be viewed as a set of roles and responsibilities new employees accept as simultaneously operant self-identities in the workplace. These identities together constitute the self that is the active learner at work.

These five mediation categories constitute the mediated learning framework of epistemological agency. This framework captures the parameters of influence that may be considered the primary mediators of the new employees' learning. Some illustrative examples from each of the categories of the framework are briefly outlined here.

Time

All participants reveal their perception of time as both an objective commodity and a subjective experience (Noon & Blyton 1997). As a commodity, time is both an imposition of the job and a resource to be controlled. It is necessarily accepted, managed and deployed by each of the new employees in ways that reflect its utility for them. This may in part be due to the different time frames their reasons for working created.

For example, Michael had a long-term view of his employment as the beginnings of a sales career. For him there was "*plenty of time*" and it was going to take "*a fair while*" before he would be satisfied with his workplace performance. He didn't know how long this was going to take but he confidently stated, "*yeah, I'll be there in five years time*".

Alice had a clear short-term time frame of "*until Christmas*" to achieve her goal of earning enough money to "*put a new transmission in the old Merc*". For her, time management was about "*saving time*" because this relieved "*stress*" and "*grief*" and "*saves my sanity*". Her ability to work to her time frame was dependent on quickly securing satisfactory workplace performance and remaining "*happy with what I'm doing*".

Chris had no specific time frame for his employment. "*I'll keep working here until I get sick of it I guess*". For him, time was scarce yet consuming of his desires to do his work well. "*I don't even have enough time to sleep, let alone do the job properly*". He was however, confident of his ability to do the work because "*its not that difficult*" but felt satisfactory workplace performance would "*probably take longer than I expect*".

As the new employees revealed by their actions, time is a multiplicity of contentions. It can be viewed interactively as the 'moment' that captures learning through the individual's engagement in their context (Wertsch 1995) - its passing evidences learning. It can be viewed as experience along an objective-subjective continuum that supports control and management for goals and purposes (Noon & Blyton 1997) – it is a resource to be utilised. It can be viewed as a motivator that indicates along a short term – long term continuum the goal selection that characterises agency (Carstensen, Isaacowitz & Charles 1999) – it qualifies decisions.

However viewed, time is a highly influential and complex mediator of learning. It is as much a function of agency as agency is a function of time. The new employee's learning actions evidence an

intentionality that has purposeful meaning within the dimensions of their personal time frames. These time frames differ within the work period and practices that are common to them all. Epistemological agency may be understood in part as the manipulation of time necessary to new employee learning.

The Organisation

The relationship that most dominates the new employee's initial engagement in their work is the one they establish with the staff member to whom they are assigned by the boss.

Marg is the one that I immediately go to for anything because she's the first person that I was actually teamed with to show me the basics of picking out the orders,
(Alice)

None of the staff guides are trained for their role, nor are they consulted regarding their willingness to take on the training of a new employee. They do not feel responsible for the new employee's learning and openly state they are not instructors and that the new employees are not their assistants.

Wayne would answer any of my questions, but he was always too busy himself to stop and show me. He gave me the sheet and said go for it. Do what I do. (Chris)

The new employees learn that their performance and the learning it necessitates are their responsibility. They must become active seekers of information and guidance. They must exercise their epistemological agency immediately.

The management of information and access to it are aspects of the new employee's epistemological agency. At FruitCo these are relationship issues that involve the communication systems and processes that guide participation (Rogoff 1995). The new employees must engage in these practices and establish some control or management of them. Failure to do so may result in poor workplace performance and the possibility of dismissal (Williams 2002).

The boss' personality and presence, as the owner of the business, are dominant organisational factors and represent an important relationship that is difficult to manage for the new employees. A fearful attitude of respect becomes the basis of desired avoidance that characterises the new employees' relationship with their boss.

Well if you're kind of quick and getting your orders out you're pretty much guaranteed that Gary won't get shitty at you and fire you. (Michael)

Everyone gets pretty stressed, especially Gary. You learn how to stay out of his way if you want to keep your job. (Chris)

In managing their relationship with Gary in this way the new employees deny themselves access to a rich source of information. As a choice they make, this exercise of epistemological agency can be seen as both encouraging of independent thought and problem solving (Harris et al 1998) and discouraging of the necessary communication that supports critically reflective involvement in the workplace (Mignery, Rubin & Gordon 1995). It evidences epistemological agency as in part, the negotiation of the fundamental personal relationships that are important organisational factors mediating work and learning.

Learning Strategies

The new employees are expected to be proficient self-directed learners who are capable of doing what is expected from the outset. All would generally agree with Michael when he describes the work as – *“Well its not a hard job really. You’ve just got to have some common sense”*. For the three new employees, the key components of that common sense are the ability to ask questions and prudently evaluate the observable practices of the workplace.

Michael, Chris and Alice bring to their new work varying degrees of confidence and skill in asking questions as the means of overcoming their initial lack of stock familiarity and inability to read the order sheets. For Michael, questioning was almost a conversational practice. He asked questions constantly as a means of gathering the information he required and as a means of building rapport with other staff and customers. For him, the whole workplace was a zone of proximal development (Vygotsky 1978) and everyone in it a guide to be utilised in his pursuit of workplace knowledge.

You ask questions. If you’re not sure about it you go and ask someone who you think will be sure and if they’re not sure about it you ask someone else. (Michael)

Alice’s questioning however was more qualified by her need to ask only when she felt unsure. Her independence as a self directed learner would often see her asking questions to seek confirmation of decisions she had already taken.

First I’d look what I need, then go and find it, then ask if this is such and such.
(Alice)

In this way, Alice’s questions were testing her learning, providing the feedback that enabled her to evaluate her surety.

Chris was reluctant to question staff other than Wayne. He had been assigned to Wayne when he first started at FruitCo and became familiar with the location and rotation of stock through the main cold room. This meant he was constantly being asked questions by all the staff packing orders. Despite all the contact this created for him he reserved most of his questions for Wayne and relied more on a trial and error learning strategy when Wayne was unavailable. This created problems for him early in his employment as his calculated guesses were often wrong and orders were returned with customer complaints.

I like figuring things out for myself. Basically you could go in and you’re thinking OK I need to get something and its either this one or this one and you know everyone else is just too busy to help you so you just guess and grab something. You’ll find out later if it’s the right thing or not. (Chris)

Alice clearly situates her learning for work at work. She practices her previously acquired learning strategies of questioning and listening in conjunction with her memory skills to meet the requirements of her workload. Her learning is characterised by what she has to learn to do her job. Chris similarly situates his learning for work at work. He often deploys a set of learning skills and strategies that are inappropriate to the task. The minimal guidance he receives seems interpreted as a freedom to practice his preferred trial and error learning strategy. His learning is characterised by a mismatch between what he has to learn and how he learns it. By contrast, Michael supplements his basic learning strategies of questioning and observation with keeping a notebook and concentrating his efforts on the boss and the customer as the best sources of information for his purposes. This

enables him to self-situate his learning for work. He can learn about work at work and away from work. His learning is characterised by the combination of what he has to learn and what he wants to learn.

The learning strategies utilised by the three new employees attest to the purposeful nature of their learning in the workplace. They each meet the necessity of their learning with the capacity to deploy a range of information seeking skills and to evaluate and adapt these skills to the workplace affordances that both hinder and encourage their learning. These capacities originate in the learning prior to their employment at FruitCo. They are further developed by their engagement in the workplace practices of FruitCo. Their deployment evidences the exercise of epistemological agency as responsive to and productive of active workplace participation. In this way epistemological agency can be viewed as the necessary actions taken by the new employee in learning to work and learning to learn.

Motivation

Conceptually, motivation seeks to offer understanding and explanation of actions through desire and orientation. Michael, Chris and Alice both need and want to know how to do their job. Their motivation may be viewed as derivative of the necessity of their situation, that is, their need to participate in the workplace.

Alice is particularly clear when she states –

I go to work. I do what's required of me and then I go home and I don't worry about work anymore. I work because I have to. Again it's a means to an end.

Her ends are known, measured and expressed as physical needs that she can list.

Basically I needed work, the car needed to be fixed Its not that I go there just to fill in time and get paid for it. (Alice)

For Alice, there is a reluctance to consciously distinguish between needs and desires as fundamental reasons for working. Her actions are personally accepted as responses to what she feels she needs to do.

Chris had not worked for nearly four months when he started at FruitCo. The family excitement of Christmas had come and gone, everybody else was back at work –

So I thought I'd better get out and do something. I needed the money of course so I started looking around and this came up. (Chris)

The pleasure Chris experiences through work is indicative of an intrinsic motivation that meets his need for 'competence' Self-determination theory (Deci & Ryan 1985) would present Chris as assimilating the new identity his work offers him through an intrinsically motivated 'internalisation' of its practices. He wants and is able to do well at work. However, his motivation to do so is being undermined by the very practices he needs to assimilate. His focus is on mastering the tasks his job requires. His frustrations are the conflicting directions he receives from the others.

The front display is a good example. Gary says make it pretty, use all the good stuff.

JT says we need to get rid of the old stuff. Then Louis decides he wants to add some

other stuff then Gary gets pissed off at me because the front display looks like crap.

Why am I supposed to care? (Chris)

The decisions his job requires of him are simultaneously his to make and yet not his responsibility. What motivates him to do well likewise demotivates. Workplace inconsistencies, as a contextual mediator of his actions, are destructive of his volitional engagement in his work.

Michael is similarly intrinsically motivated.

I enjoy the work. Every aspect of it is to me interesting and I'm here because I want to be. I know what I'm doing if you know what I mean. (Michael)

He explains his intentions through his actions, that is, what Michael is doing is why he is doing it. While this is also true of Alice and Chris in that their reasons for working motivate the intentional actions that are the requirements of their job, Michael goes beyond this. He expresses a willingness to explore the salesman identity his work offers. If that identity remains attractive he will continue to be motivated by it.

Motivation is perhaps best understood as a product of agency rather than a foundation for the satisfaction of psychological needs. The motivation to work is individually driven by the opportunity to do so. It is not what motivates, or how much motivation an individual has, but rather the actions enabled by participation in culturally meaningful activities that promote and engage the individual's motivation. All three new employees are motivated to work. Likewise they are motivated to learn. Their exercise of epistemological agency evidences their motivation to learn as necessary to their actions.

You've got to know how much effort to put into what you're doing. Like do you spend time cleaning up the old stock and risk them sending it back or do you send out the good new stock and risk Gary blasting you. (Chris)

Chris is motivated to find the balance between customer satisfaction and organisational policy. This issue goes right to the heart of FruitCo's business practices but its immediate impact on Chris's work is his need to evaluate the different perspectives of his labour. Which of these basic perspectives, his, the boss's or the customer's, holds sway in this particular instance? Such considerations are necessary with the selection of each product for every order. They are routine practices that motivate action by their very necessity.

Learning is motivated by the necessity of the workplace. It is the practice of decision making, choosing from alternatives with consequences that demand consideration. The limited choices that in part define the work practices of the new employee do not remove the demands of consideration and subsequent action. The action of making choices is the exercise of epistemological agency. The new employee can be construed as either more or less motivated or intrinsically or extrinsically motivated to make these decisions. Motivation from this perspective offers a taxonomy of descriptive qualifiers of actions. These are the mediational moments (Wertsch 1998) that contextualise motivation as the product of the actions necessary to workplace participation.

Identity

The new employee may be viewed as a set of identities that are active as the self who is exercising their epistemological agency in the workplace. Such a view of the self, as a multiplicity of identities simultaneously acting to maintain the “inclusive separation” of the subject (Valsiner 1994), strengthens the constructivist ontology of multiple realities. In this case, Michael, Alice and Chris describe their actions from three distinct points of view. Each point of view may be seen as representing a separate identity, or aspect, of the self. They are outlined here as ‘the me’, ‘the we’ and ‘the us’ – three interdependent identities that, in concert, represent the self who is busy developing in the workplace.

The first is the ‘me’ – the individual who started work as a new employee and continues to be independent of the workplace. This identity has a definitive and rich personal history that can be drawn on as a resource for the assimilation and accommodation (Piaget 1968) of the new experience that is their situation.

*I'm 41 years old. Been married to the man I love for 21 years. I've got two great kids
..... I knew that choy is Chinese for leafy vegetable but now I know the difference
between bokchoy and pakchoy and choysum. I'd never knew there were so many
choys. (Alice)*

This identity has its own agenda and pursues its goals as if unencumbered by the mediating factors of its context. This identity has feelings and attitudes that impact the workplace. It may be an active composite of the numerous roles each individual has learned and supports in their life. The self that arrives at work as the new employee has a plasticity, a capacity to be what is required in the situation at the time (Devos & Banaji 2003). This capacity has implicit and explicit qualities (i.e., non-conscious and conscious) that enable a degree of control, of self-regulation, in the face of contextual factors that inhibit or encourage the pursuit of goals (Baumeister 2001). These qualities may be viewed as the resources deployed by the individual in their need to participate in the workplace. They include the skills and dispositions necessary to relate to others, to accept challenge or difficulty, to monitor and evaluate self-action. They are the personal mediators that together may form a sociocultural profile of the ‘I’ that is the ‘me’ at work.

The second identity is the ‘we’ – the colleagues who together complete the daily workload of supplying customers with product. The last order of the morning is usually the large chainstore order that must be delivered within a specified time period to coincide with loading dock schedules. Any and all of the available packing staff assist with its completion.

*today we must have worked well as a team because we actually got the very last
order out before 9.30am So that wasn't just me, that was a group effort. That to
me is an achievement. (Alice)*

Alice knows she is a member of a team and takes pleasure in contributing and sharing in its accomplishments. Self-determination theory (Deci & Ryan 1985) would suggest that Alice is assimilating the new identity of herself as a casual worker through her internalisation of the regulatory practices that characterise her role at work. This is done in response to her psychological needs to belong, to be able and to be independent within the context of the workplace (Ryan & Deci 2003). Her workplace participation however requires, demands, her being a team member. Group affiliation is

not optional. Her psychological needs as detailed by self-determination theory may or may not be met but her 'we' identity remains necessary to the job. Just as it is for Chris and Michael.

Sure you pack the order yourself but we all work together. We have to get the orders out. It's like a team thing. You're part of the team. (Chris)

The third identity is the 'us' – the 'we the company'. In one sense this identity may be seen to extrapolate from membership of the team of staff who pack the orders. Like the group affiliation this requires, 'we the company' is an identity necessitated by the requirements of the workplace. When Michael comments "we are out of stock" he designates the business, FruitCo, through his use of the personal plural pronoun 'we'. When however it is noted that he is responsible, due to the requirements of his job, for ensuring that FruitCo does not run out of certain stocks, the 'we' pronoun assumes a possessive quality that marks his identity as 'we the company'. The same is true of Alice and Chris when they acknowledge themselves as representatives of the company who are responsible for customer satisfaction, stock control and therefore the maintenance of business.

I did pack the right things but somewhere between me packing it and the customer getting it, they got the wrong thing ... we could have lost the business. (Alice)

The 'us' identity that establishes the new employee as an FruitCo representative is emergent within the practices of the workplace. Like the 'we' identity it does not arrive at the workplace as a new employee ready to start work. Rather it could be said to arrive as a potential, a capacity of the self that has already been ontogenetically constituted as an inclusively separate subject (Valsiner 1994). It develops through the new employee's on-going participation in the practices of the workplace. These practices necessitate the new employee's acceptance of responsibility, the making of decisions and communication with co-workers.

The self, no matter how theoretically envisioned, is actively engaged in the co-constructed (Valsiner 1994), co-participative (Billett 2001a), practices of exercising epistemological agency. At FruitCo, the new employees could be said to be exercising this agency within the requirements of the different identities the workplace both enables and necessitates. Epistemological agency may then be viewed as an aspect of the developing self – a self that is multiply constituted by a plasticity of established and emerging identities that meet the demands of their context through interaction and transformation.

Defining learning through epistemological agency

Epistemological agency is initially defined as the personal practice of constructing knowledge. It is posited as a concept that encapsulates the necessary actions and intentionality of the learner. It privileges them with an autonomy that accounts for individual difference through ontogeny and utility. Through this autonomy, epistemological agency conceptually focuses learning on the learner and their purposes in acknowledgement of the necessities of their social and cultural context.

Michael, Chris and Alice could be described as successful self-directed learners. Given the conditions of minimal learning guidance and support afforded them by FruitCo, their success as new employee learners is evidenced by a willingness to persist in and manage their learning. Persistence implies the willful decision to continue in the course of action necessitated by their new jobs despite

opposition. This opposition is founded in the limited provision of learning guidance and support and other cultural practices that hinder new employee learning. 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 to personally 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.

The new employees' actions across all categories of the framework demonstrate self-management and contextual-management practices. Among the mediational constraints that impact their learning management are the reasons and purposes that 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. Their learning may be viewed as the management of their personal agendas. Their agendas are more than the work requirements of their job descriptions. They are the actions that must be undertaken to secure the reasons and purposes of their employment. The agenda represents the manifest of motivations, those actions that the new employees must undertake - 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 or uncharacteristic. The unfathomable is not discounted by the necessities of practice in context. For the new employees there are unmistakable necessities that dominate in the other wise 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 this equates with managing their personal agendas.

The mediated learning framework of epistemological agency affords a view of Michael, Chris and Alice, as both creatively proactive and considerably responsive to the necessities of their context. These qualities emerge through a consideration of their management of the various mediators that impact their learning and working. Viewed through this framework, the volition and intentionality that support their management are evidenced in their actions. This evidence is the decisions and choices that reveal the preferences and priorities that are manifest in their agendas. Michael chooses to answer the phone at every opportunity because that's what salesmen do. Chris chooses to ask more questions of fellow staff because it's the best way to get the information he requires. Alice chooses to clarify what decisions she is responsible for because this will build her confidence and improve her work performance. The mediated learning framework of epistemological agency enables the observation and analysis of the new employees' purposeful actions. It enables

the understanding of these actions as comprising the new employees' personal workplace agendas and their management.

The research moves the initially proposed 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 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.

For Michael, Chris and Alice, numerous metaphors for learning emerge as descriptors of their workplace activities. They *respond* to and are *productive* of the necessities of their workplace. For each of them, 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 now 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.

References

- Adler, P.A. & Adler, P. (1994) Observational techniques. In Denzin, N.K. & Lincoln, Y.S. (Eds) *Handbook of Qualitative Research*. Thousand Oaks, California: Sage Publications. pp377-392.
- Angrosino, M. & Mays de Perez, K. (2003) Rethinking observation: From method to context. In Denzin, N.K. & Lincoln, Y.S. (Eds) *Collecting and interpreting qualitative materials*. (2nd Ed.) Thousand Oaks, California: Sage Publications. pp107-154.
- Baumeister, R.F. (2001) Ego depletion and self control failure: An energy model of the self's executive function. *Self and Identity*. 1 pp129-136.

- Billett, S. (2001a) Co-participation at work: Affordance and engagement. In Fenwick, T. (Ed) *Sociocultural perspectives on learning through work*. San Francisco: Josey Bass/Wiley.
- Billett, S. (2001b) *Learning in the workplace: Strategies for effective practice*. Allen & Unwin: Crows Nest NSW.
- Carstensen, L., Isaacowitz, D. & Charles, S. (1999) Taking time seriously: A theory of socio-emotional selectivity. *American Psychologist* 54(3) pp165-181.
- Deci, E.L. & Ryan, R.M. (1985) *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.
- Devos, T. & Banaji, M.R. (2003) Implicit self and identity. In Leary, M.R. & Tangney, J.P. (Eds) *Handbook of self and identity*. New York: Guilford Press. pp153-172.
- Harris, R., Willis, P., Simons, M. & Underwood, F. (1998) *Learning the job: Juggling the messages in on- and off-the-job training*. (for the Australian National Training Authority) Leabrook SA: National Centre for Vocational Education Research.
- Leont'ev, A.N. (1981) The problem of activity in psychology. In Wertsch, J.V. (Ed) *The concept of activity in Soviet psychology*. New York: Sharpe. pp37-71.
- Mignery, J., Rubin, R. & Gordon, W. (1995) Organisational entry: An investigation of newcomer behaviour and uncertainty. *Communication Research*. 22 pp54-85.
- Noon, M. & Blyton, P. (1997) *The realities of work*. London: Macmillan Business.
- Piaget, J. (1968) *Structuralism*. (C.Maschler, trans. & ed.) London: Routledge and Kegan Paul.
- Renshaw, P. (1998) Sociocultural pedagogy for new times: Reframing key concepts. *The Australian Educational Researcher*. 25(3) pp83-100.
- Rogoff, B. (1990) *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford University Press.
- Rogoff, B. (1995) Observing sociocultural activity on three planes: participatory appropriation, guided participation and apprenticeship. In Wertsch, J.V., del Rio, P. & Alvarez, A. *Sociocultural Studies of Mind*. New York: Cambridge University Press. pp139-164.
- Rogoff, B. & Lave, J. (1984) (Eds) *Everyday cognition: Its development in social context*. Cambridge: Harvard University Press.
- Ryan, R. & Deci, E. (2003) On assimilating identities to the self: A self-determination theory perspective on internalisation and integrity within cultures. In Leary, M.R. & Tangney, J.P. (Eds) *Handbook of self and identity*. New York: Guilford Press. pp253-271.
- Scribner, S. (1997) Mind in action: a functional approach to thinking. In Cole, M., Engestrom, Y. & Vasquez, O. (Eds) *Mind, culture and activity: Seminal papers from the Laboratory of Comparative Human Cognition*. Cambridge: Cambridge University Press. pp354-368.
- Valsiner, J. (1994) Bi-directional cultural transmission and constructive sociogenesis. In de Graaf, W. & Maier, R. (Eds) *Sociogenesis re-examined*. New York: Springer.
- Valsiner, J. (1998) *The guided mind: A sociogenetic approach to personality*. Cambridge: Harvard University Press.
- Vygotsky, L.S. (1978) *Mind in Society: The development of higher psychological processes*. Cambridge: Harvard University Press.

Wertsch, J.V. (1995) The need for action in sociocultural research. In Wertsch, J.V., del Rio, P. & Alvarez, A. (Eds) *Sociocultural Studies of Mind*. New York: Cambridge University Press. pp56-74

Wertsch, J.V. (1998) *Mind as Action*. New York: Oxford University Press.

Williams, S. (2002) Individual agency and the experience of New Deal. *Journal of Education and Work*. 15(1) pp53-74.