INDIVIDUAL AND ORGANIZATIONAL LEARNING: DEVELOPING A THEORY OF LEARNING THROUGH THE CONCEPT OF THE STRATIFIED INDIVIDUAL.

DENISE THURSFIELD[*]

Hull University Business School

ABSTRACT

This paper sets out to develop a social theory of learning that is broadly compatible with weaker forms of social constructionism, but which incorporates both individual and social learning in a non-conflationary manner. I argue that although learning is a social activity inextricably linked to the social conversation, the individual is not constructed entirely through social discourse. There is a part of the individual person that originates and exists outside the social conversation and which is implicated in learning. To achieve fusion between individual and organizational learning, the paper employs Archer's model of the stratified individual (Archer, 2000; 2003). According to Archer, the individual psyche is stratified into sense-of-self, concept-of-self, social identity and personal identity. Sense-of-self is continuous throughout life and emerges from non-linguistic embodied interaction in the natural and material world. Concept-of-self is appropriated through social activity and mediated through language. It is posterior to sense-of-self because bodily skills occur prior to language. Social identity is linked to concept-of-self and results from society's discourse. Its emergence is also dependent on the existence of continuous sense-of-self. Personal identity emerges from interaction between sense-of-self and social identity through what Archer terms the inner conversation. Personal identity is, moreover, implicated in learning. The fusion between individual and organizational learning using the concept of the stratified individual is supported by empirical evidence from the research and development laboratory of a company named 'Organichem.' The paper explores how the inner conversations of research technicians in the research and development laboratory underpin learning that is simultaneously individual and organizational. Development of theory occurs through the fusion of concepts associated with social theories of organizational learning and the critical realist paradigm. These are practice, language and discourse, and identity and learning.

1   INTRODUCTION

Conceptualization of the individual in organizational learning theory is linked to the ontological paradigm in which theory is embedded. I attempt, in this paper, to explore the relationship between individual and organizational learning through Archer's critical realist model of the stratified individual (Archer, 1995, 2000, 2003). My aim is to create fusion between the critical realist paradigm and the organizational learning discipline. A further objective is to elaborate a *social* theory of organizational learning that is broadly

---

[*] Denise Thursfield, Centre for Management and Organizational Learning, Hull University Business School, Cottingham Road, Hull, UK, HU6 7RX, Tel: +44(0)1482 463118. Fax: +44(0)1482 463484. e-mail d.thursfield@hull.ac.uk.

compatible with weaker forms of social constructionism, but which incorporates *individual* and *social* learning without conflating or reducing either dimension (Archer, 1995, 2000, 2003). This objective might appear paradoxical. I argue, however, that conceptualising the human mind as stratified can expedite our understanding of the complex link between the embodied mind and social environment. My objective is to argue that although learning is a social activity, and inextricably linked to the social conversation, the individual is not constructed entirely through social discourse. There is a small element of the individual that originates and exists outside the social and this element is implicated in learning. This argument accords with the critical realist position put forward by Fairclough (2005), that analysis of discourse should be included in organization studies, but that the study of organizations cannot be reduced to discourse analysis. Empirical evidence from the research and development laboratory (RDL) of a chemicals manufacturing company named 'Organichem' is used to support the developing approach.

The paper begins by outlining the two sociological paradigms that have, arguably, influenced social theories of organizational learning to the greatest extent. These are social constructionism and structuration theory. This is done to demonstrate how the concept of the stratified individual differs from, and enhances, conceptualizations of the individual in mainstream sociological approaches. Particular attention is paid to language and discourse, practice and identity formation because these concepts are central to organizational learning theory. Section two presents Archer's model of the stratified individual. Section three describes Organichem and RDL before outlining the research methodology. This is followed, in section four, by presentation and discussion of the empirical data. Finally, I map out a critical realist approach to organizational learning based on the stratified individual. This discussion is also organized around the concepts of discourse, practice and identity formation. Finally, I explain why this is a social theory and point out some implications for research.

2   CONCEPTUALIZATIONS OF THE INDIVIDUAL IN ORGANIZATIONAL LEARNING THEORY

Archer developed the theory of the stratified individual as a counter to what she termed 'conflationary theorising' (Archer, 1995, 2000). It was also developed to counter post-modernist attempts to 'sever the relationship between language and the world' and dissolve the self into 'discursive structures' (Archer, 2000: 3). Conflation occurs in three directions. Upwards conflation is the result of theories that conceptualise society as epiphenomena of individual consciousness. Archer's critique of upwards conflation centres on 'modernity's man.' That is, the enlightenment notion of rational man shaping society through a series of instrumental decisions unencumbered by social pressure. There is little evidence of modernity's man in organizational learning literature and, therefore, this paradigm is not considered. Downwards conflation occurs when people are conceptualized as no more than the products of society. Archer's critique of downward conflation is focused on post-modern theories, which view individuals as shaped entirely by social discourse. She also critiques Giddens' structuration theory (Giddens, 1979) because it conflates centrally: individual and society are elided into the unified concept of duality of structure. The, seemingly paradoxical, objective of this paper is to develop a social theory of organizational learning that does not impoverish the individual, but which retains the notion

that organizational learning is a social activity. Critical attention is thus given to downwards and central conflation.

Social constructionism is an example of the post-modernist emphasis on discourse as creator of meaning. From the social constructionist paradigm, higher psychological processes such as construction of meaning and sense-of-self are socio-cultural in origin (Tomasello, 1999). The individual is embedded in and has no ontological existence independent of society. Reality is socially constructed through social interaction and shared language. Language is thus anterior to action: it creates rather than describes reality because facts are language dependent. According to Heracleous and Marshak (2004), the mental frames through which individuals understand reality are created through discourse. The power of language makes it the ideal instrument through which to promote a particular organizational learning agenda. For example, the use of storytelling to encourage managerialist versions of 'reality' (see, for example, Gold, Holman and Thorpe, 2002; Taylor, Fisher and Dufresne, 2002; Tineke, 2003). Similarly, metaphors may be used to create and recreate meaning and to reframe individuals' ways of thinking (Gherardi, 2000). Discourse also has the power to label, shape and objectify learners' identities as productive entities (Contu, Grey and Ortenblad, 2003).

The concept of practice is also crucial to social constructionist versions of organizational learning. Organizations are defined as the regularized practices of individuals (Berends, Boersma and Weggerman, 2003). Learning is embedded in social practice and involves the collective construction of knowledge through negotiation. Learning is necessarily situated in a particular social context, yet linked to wider practices through language (Gherardi and Nicolini, 2002). Moreover, practice is crucial to the formation of human identity, which is shaped through interaction between the self and other. Because individuals are socially embedded, individual identity and social identity is one and the same thing. Social identity develops as people learn to understand and define themselves through identification with a group (Gundlach, Zivnuska and Stoner, 2006).

Occupational identity is an example of social identity. (Child and Rodrigues, 2003). In contrast to the strong social constructionist conceptualization of the individual as passive absorber of the social conversation, structuration theory conceptualizes social structure and agency as equal aspects of one duality (Giddens, 1979). Individuals are knowledgeable about society, and social structure is both medium and outcome of recursive human action. Organizational learning theories to emerge from the structurationist paradigm focus on situated micro-practices within a context of existing and accepted organizational knowledge (for example; Huysman, 2004; Lave and Wenger, 1991).

Despite these differences in emphasis, social constructionism and structuration theory are treated as interchangeable in this paper. This is done for two reasons. First, structruration theory is, it is argued, a restrained form of social constructionism that emphasizes the dualistic nature of the social world (Outhwaite, 2006; Reed, 2001). Second, each of these paradigms is guilty of conflation. Social constructionism conflates downwardly in that people only become people through engagement in social practice. They exist only in relation to society and have no personal identity that is independent of social identity (Archer, 1995; 2000). Structuration theory conflates centrally. Notwithstanding Giddens' claim to incorporate the knowledgeable individual, the notion of duality of structure does not allow for the possession of personal properties independent of the social conversation.

Human reflection and interpretation occur only in relation to social discourse. People become, in Archer's phrase, 'society's beings' (Archer, 2000).

3   THE STRATIFIED INDIVIDUAL

I argue, in this paper, that Archer's model of the stratified individual provides a good framework through which to explore organizational learning. This is because it enables the development of an organizational learning theory that incorporates both individual and social learning, but which does not conflate either element of reality. Archer's model is embedded in the critical realist conceptualization of reality. For critical realists the world is stratified and consists of objectively real entities. Entities are real because they have effects, although they may or may not be identifiable through their effects. Fleetwood (2004, 2005), for example, identifies four modes of reality. Materially real objects are natural phenomena such as trees and rocks. Ideally real things are conceptual objects such as language and discourse. Artifactually real entities are concrete objects produced through practice. Socially real entities are practices such as wage labour and social structures such as class, which although not materially real are irreducible to discourse. Real entities can, moreover, exist independently of their identification by humans (Fleetwood, 2005).

Archer similarly argues that people exist in the ontologically real natural, practical and social orders, and that each is equally important in the constitution of the person. The stratified individual consists of sense-of-self, concept-of-self, social identity and personal identity. Sense-of-self is continuous throughout life and emerges from non-linguistic embodied action in the natural and material world. That is, interaction with concrete objects and artefacts. Sense-of-self develops in early childhood when the infant becomes aware of itself as a singular entity through differentiation between self and other. It continues in adulthood through procedural memory, which is more important than declarative memory. This is because procedural memory is more durable and because all human senses play an important role in remembering.

Concept-of-self is appropriated through social activity and mediated through language. It is posterior to sense-of-self because bodily skills occur prior to language. Moreover, within language gesture is prior to verbal articulation, thus reinforcing the primacy of embodied interaction. Archer acknowledges the indispensability of conceptualization, but argues that concepts are not necessarily linguistic. Concepts can exist in the realm of sense-of-self. Finally, the development of a concept-of-self depends on the ability to distinguish between self and other, an ability that occurs in the realm of sense-of-self.
Social identity is linked to concept-of-self and results from engagement in society's discourse. Its emergence is also dependent on the existence of the continuous sense-of-self. Because humans are open systems, social identity is changeable over time (Archer, 2000).

Personal identity emerges from the 'inner conversation' between sense-of-self and social identity, but is irreducible to either (Archer, 2000, 2003). It is the 'unique organic continuity imputed to each individual' (Archer, 1995: 100).   The inner conversation takes the form of emotional commentaries on individuals' fundamental concerns. Distinct types of emotion are linked to the natural, practical and discursive orders. Emotions in the natural order are similar for all humans and emerge from embodied interaction with nature. Practical order emotions are related to the achievement of some performance in the

practical arena. Emotions emergent from the social order relate to individuals' interaction with society's culture and norms, for example, pride, remorse and envy. Moreover, such emotions are not 'socially constructed by the social imposition and individual appropriation of emotional labelling, but are socially constituted properties that emerge from the internal relationship between the subject's concerns and society's normativity' (Archer, 2000: 215).

Personal identity evolves from the balance between an individual's concerns and her emotional commentaries on those concerns. That is, from the inner conversation. Because these concerns are not exclusively social, personal identity cannot be exclusively social. Social and personal identity is not one and the same. What is more, formation and continuation of personal identity depends on an individual's interaction in the natural, practical and social orders. Personal identity is, I will argue, crucial to learning.

4   BACKGROUND AND METHODS

Organichem is facing intense competition from producers in developing countries. Plant closure and/or redundancies are an ever present possibility. The company's response is to diversify production. It has decreased production of high volume chemicals in favour of specialty chemicals made for individual customers. In the context of these changes, the main function of RDL has shifted from routine testing of mass produced chemicals to the design and development of niche products. To facilitate change, managers are attempting promote a new flexible learning culture in which learning and knowledge will be shared and collectively produced. However, an alternative to the managerial discourse of the flexible learning culture has developed at RDL. This is a discourse of resistance to managers' attempts to promote knowledge sharing. This alternative discourse prevents organizational learning, and its emergence is, I shall demonstrate, explicable through the concept of the stratified individual.

RDL employs ten technicians, a Senior Technician and a Manager. All are chemistry graduates. A series of unstructured interviews were carried out over a six week period. Interviews were conducted with eight technicians, the Senior Technician and the Manager. Each interviewee was interviewed at least twice, and some were interviewed three times. Interviews were also carried out with the Production Manager and the HR Manager. Discussion with these managers focused on the company strategy and the attempt to promote a learning culture. Company documents such as newsletters and job descriptions were also accessed.

5   ORGANIZATIONAL LEARNING AT RDL

A number of themes emerged from interviews with the technicians and the RDL Manager. These were the organization of work; the nature of work and learning; technicians' subjective identification with work; the company's economic position; and the shift to flexible working. In addition, the organization of work is outlined in job description documents and flexibility is described in company newsletters. This section discusses these themes in relation to Archer's model of the stratified individual.

5.1 The Organization of Work, Learning and Occupational Identity Formation

Job description documents describe the organization of work in an individualistic manner. Technicians' roles are defined in terms of a discrete set of tasks to be performed. Moreover, in practice tasks are distributed by the Manager or Senior Technician and each technician has a daily list of experiments to conduct. Technicians are responsible for their own equipment; for planning work, performing the task and recording results. It is rare for a technician to request help from a colleague. As the following quotes suggest, this would be regarded as failure:

> We tend to get on with our own work. No one likes to ask for help if they can avoid it. It would be embarrassing (Technician).

> If I were to ask a colleague to help me it would look like I am incapable of doing my job (Technician).

> The culture in the lab is very individualistic in that technicians do not help each other or work together (Manager).

This individualism may well be a legacy of the past. Repetitive testing of a standardised product is supported by individual performance of routine tasks. I will argue later, however, that individualism is also related to the current precarious position of the company, and the resulting practical and social concerns of technicians. Individualistic practice is, moreover, socially real and in possession of causal powers to shape learning.

The next two quotes are representative of the individualistic conceptualizations of learning held by technicians:

> I am a big believer in learning by doing. I have been doing this job for 25-years and am still picking things up from experience. I try to help the younger people, but really it's a case of giving them advice and letting them pick things up for themselves (Senior Technician).

> What do you mean do we share knowledge? How can you share knowledge? You either have it or you don't (Technician).

The individualistic nature of work is compounded by the artifactually real machinery used by technicians. This machinery contains properties that shape technicians' practice. Each technician has his or her own machine and an intimate relationship develops between the two. The relationship is non-linguistic and is based in physiological embodiment and sensory motor skills. Practice involves asocial, tacit engagement with equipment that is irreducible to discourse. It also involves the use of procedural memory. In technicians' own words:

> You need to get to know your equipment. You do this through working with it, touching it. It probably sounds strange to say but you get a sort of gut feeling for it (Technician).

> You learn how to calibrate a machine through experience. All machines are different and you have to get to grips with a particular one (Technician).

> Experience is important because you need that to understand how to interpret the results from different equipment. It's difficult to explain to someone who has no knowledge of chemistry, but you get to know a particular piece of equipment by using it, not by reading about how it works or someone telling you (Technician).

I am arguing here that technicians' learning has emerged from engagement with each of the different orders of reality. Their non-linguistic embodied engagement with the natural and practical orders (of chemistry and equipment) and the importance of procedural memory to experience is implicated in their continuing sense-of-self. Concept-of-self is, however, linguistic and appropriated through practice in the social environment. For example:

> I think of myself as a chemist rather than as an employee of RDL. I mean I could go and do this job elsewhere (Technician).

> I have always loved chemistry. I wanted to be a lab technician even when I was at school. When I left university this was the only place I could get a job. I stay because it's the easy thing to do not because I like the place (Technician).

> I cannot imagine doing any other job – of being anything but a chemist. Even though I am the Manager, I still see myself as a chemist (Manager).

> To be honest I do not feel much commitment to the company. The managers are a bunch of accountants and do whatever suits them (Technician).

Concept-of-self is linked to social identity. It is argued by Child and Rodrigues that occupational identity is an example of social identity (Child and Rodrigues, 2003). These quotes suggest that the concept-of-self and social identities of RDL technicians are occupational rather than organizational. Child and Rodrigues further argue that organizational learning involves the bridging of identity boundaries through constructive workplace relations and mutual goals. Occupational identity can act as a barrier to organizational learning by preventing individuals from identifying with their organization (Ibid.).

The above quotes display no evidence of the constructive workplace relations and bridging of identity boundaries that Child and Rodriques believe are necessary for organizational learning. The final quote also suggests that occupational identities as chemists are, in part, formed in opposition to the label of accountant. This is despite management attempts to promulgate an organizational identity that is linked to a neo-liberal organizational learning discourse. This learning discourse extols the virtues of teamwork, flexibility, quality, and customer focus. Such ideas are promoted through the staff newsletter, which contains a weekly item describing 'good news' stories of flexibility. On a superficial level, technicians appear to accept this discourse. For example:

> We are a team here in the laboratory (Technician).

> It's important to work as a team. We have to be flexible; to work together to make sure we give the customers what they want (Technician).

> If we do not work together to create the products that customers want we are going to go to the wall. Even the union knows that (Senior Technician).

> In today's climate you have to be flexible. For example, if someone is sick we have to make sure his or her work is done. That means we need to know what each of us is doing (Technician).

These quotes appear to contradict the individualistic practices and conceptualizations of work discussed earlier. On the other hand, the final quote suggests that, for this technician at least, flexibility means little more than covering for an absent colleague. The discrepancy between the discourse of flexibility and technicians individualistic practices is explicable through the critical realist conceptualization of language and discourse. Language, from the critical realist paradigm, is just one form of practice. It occurs in the cultural realm of the social order and exists alongside practice in the natural and practical orders. Language can nevertheless shape practice because, once a discourse has emerged and become accepted, it becomes real in the sense that it contains independent causal powers. Language must furthermore, be about something. Purely self-referential language would say nothing. The discourse of flexibility at RDL has a referent in the real economic conditions faced by the company. It does not, however, have a referent in real the practices of technicians. Technicians are not flexible in their working practices and do not engage in teamwork. Thus, the discourse does not appear to possess the causal powers necessary to shape technicians practice. In this instance language neither describes nor creates meaning.

5.2 The Elaboration of Personal Identity: the Inner Conversation and Learning

Learning is linked to identity formation. It occurs as personal identity is elaborated through the inner conversation; that is, through emotional commentaries on concerns that exist in the natural, practical and social orders. RDL technicians' alinguistic natural order concerns relate to embodied interaction with the artefacts or equipment used to carry out experiments in the natural world of chemistry. These concerns are tactile and alinguistic. Technicians' referred, for example, to touching and feeling their equipment. Emotional commentaries on embodied engagement in the natural world are also alinguistic. Although technicians' attempt to put their emotions into words, they find this difficult when speaking to people who do not share the same visceral understanding.

Practical concerns are linked to action and practical order emotions relate to the achievement of some performance in the practical arena. Earlier quotes suggest that technicians' performative concerns relate to individual accomplishment and a desire to demonstrate capability in the performance of workplace tasks. Archer argues that emotional commentary in the practical sphere emerges from subject – object relations. It is linked to the question of whether or not we can make something work (Archer, 2000). In the example of RDL technicians, it relates to whether they perform experiments to the required standard. It is also likely that their performative emotional commentary is linked to the precarious position of Organichem and the possibility of future redundancies. Put simply, technicians may well be in competition with one another when candidates for redundancy are evaluated. Their concern, therefore, is to perform well as individuals rather than

collectively; a need that undermines notions of shared knowledge and collective production of knowledge.

A further element to the performative concern is with the practical implications of finding an alternative position. For example:

> I am a chemist and I do not want to do anything else (Technician).

> A friend of mine left this job to work in sales. He is doing ok and gets a higher salary, but he is not happy. He misses this job – and I think I would too (Technician).

These technicians are concerned with finding alternative positions in the same occupation. This is not, however, a universal desire:

> I suppose I could go and do something else. I'm good at my job so I think I could be good at other things too (Technician).

> If were to be made redundant I was thinking I might apply for teacher training. Schools cannot find science teachers and I am still young enough to do something different (Technician).

Although expressing different views, these four technicians are all discussing subject – object relations, and performance-achievement in the practical order. Technicians concerns are, however, wider than this and also relate to the social order. Emotional commentaries to emerge from the social order are subject-subject relations. This includes not just other people, but also relations between the subject and society's normative order. One group of emotional commentaries are subject-subject and linked to anxiety over the impact of redundancy on families:

> I suppose I could move to a different area but I have two small children and they are settled in school. So I prefer not to really (Technician).

> My daughter is doing her GCSE's so it would be difficult for her to change schools (Technician).

On the other hand:

> I'm single; no children; no ties; I will probably move to a different part of the country – or even abroad (Technician).

> If I am made redundant I will retire (Manager).

The quotes given above suggest that individuals' concerns in the social order differ according to circumstance. The data suggests, however, that emotional commentaries relating to technicians interaction with society's normative order are more uniform and strong. The next three quotes demonstrate a fear of the social stigma attached to unemployment:

I would hate to be unemployed. It would be demeaning and embarrassing. I mean, I have never even been into a dole office (Technician).

I first came here after university in the 1980's. That was a terrible time because unemployment was high and Thatcher was destroying industry. I was very pleased to get the job and I suppose it's left me with a fear of being out of work (Technician).

There is a certain amount of status attached to a job like this so I suppose I am nervous about losing it (Technician).

Technicians' learning at RDL is complex and emerges out of their engagement with different levels of reality. It is shaped by an individual's non-linguistic engagement in the natural and artifactual world, and his/her engagement with organizational and occupational discourse. It is also shaped by the structural macro-economic forces in which Organichem must operate. The following points emerge from the empirical evidence described above, and these points form the basis of the theory to be developed in the next section of the paper.

1. Technicians' non-linguistic embodied practices in the natural world of chemistry are a major component of their sense-of-self. Technicians' speak of having a 'gut feeling' for their work and of learning about their equipment through touch and feel. Some speak of always knowing they would become chemists and of their inability to articulate their feelings towards their work in 'words'.
2. Interaction between technicians' sense-of-self and the environment generates a concept-of-self as chemist. Notions of individual responsibility and achievement are integral to this concept of self.
3. Language may contain the causal power to shape practice. To do this, however, language must be about something. Language is also a practice, but is one practice amongst other, non-linguistic, practices
4. Technicians' occupational identities as professional research chemists are linked to their concept-of-self. Notions of individual performance conflict with the managerial discourse of knowledge sharing and collective production of knowledge.
5. Personal identity is formed through reflexive deliberation on individuals' concerns. These concerns are shaped by interaction between sense-of-self, concept-of-self and occupational identity. Of particular importance is the environment, and in particular, fears of possible redundancy.

The above points provide the foundations for a critical realist approach to organizational learning. This is developed through a reworking of the core concepts of practice, language and discourse, and identity formation. Points one and two relate to practice; point three relates to language and discourse; and points four and five relate to identity formation. Elaboration of the developing theory includes comparison between social constructionist, structurationist and critical realist versions of each concept. This is done to show how a critical realist theory of organizational learning would differ from current sociological approaches.

6   DISCUSSION: DEVELOPING A CRITICAL REALIST APPROACH TO ORGANIZATIONAL LEARNING

Organizational learning at RDL consists of a set of practices and knowledge that contradict the managerial discourse of flexibility. Learning is individualistic and linked to occupational identity. Technicians' learn that the company is in trouble and that their jobs are, as a consequence, under threat. However, rather than subscribing to the organizational vision of collective flexibility that might help save the company, technicians' develop an alternative discourse of individualism and protectionism. The reasons for the development of this alternative to the managerial discourse are not found in the realm of language alone. The nature of organizational learning at RDL can be explained using concepts of practice, language and discourse, and identity formation. It is, moreover, explicable through critical realist versions of these concepts.

6.1   Practice

A critical realist theory of organizational learning, based on Archer's model of the stratified individual, would begin with the assumption that practice is crucial to organizational learning. The critical realist conceptualization of practice differs sharply from social constructionist/structurationist versions. From these latter paradigms, practice consists of repetitive and habitualized activities, and the institutionalization of those activities. Habitualized actions are the subject of shared typifications that emerge from shared language. Institutionalization occurs when habitualized actions are accepted and sanctioned through group norms and shared meanings (Berger and Luckmann, 1966). Reality and, therefore, collective learning are created through the process of habitualization and institutionalization. Learning occurs through engagement in everyday practice and practice is always social. Although it is recognized that engagement in the world requires a body and a brain, it is social engagement in a particular context that gives meaning to the actions of body and brain (For example, Casey, 2005; Wenger, 1998).

Critique of this view of practice is encapsulated in points one and two above. First is the rejection that practice always social. Supporting evidence from RDL clearly demonstrates that practice has both non-social and social elements. Critical realism might accept that practice consists of repetitive and habitualized actions that eventually become accepted and institutionalized. It would, however, reject the suggestion that this practice must always be social. It would also reject the notion that it is social engagement that gives meaning to actions of body and brain, arguing instead that non-linguistic embodied practice associated with sense-of-self underpins social engagement. Without this sense-of-self, social engagement and linguistic conceptualization would not be possible. For example, a manual worker performing heavy labour does not need language to understand that his job is physically demanding and sometimes painful. He understands this through anterior non-linguistic engagement in the natural and practical orders. Discursive descriptions of his condition are posterior to visceral understanding.

A second example relates to the notion of tacit knowledge. Tacit knowledge cannot be articulated in full; it is 'know how' rather than 'know that' (Polanyi, 1966). Tacit knowledge is part of everyday life and therefore hidden from view. It is only when such

knowledge is internalized that it becomes complete. At this point the necessity to articulate such 'know how' is evidence of incomplete knowledge.

Thus, as argued in points one and two above, practice is both non-linguistic and linguistic. It relates to both sense-of-self and concept-of-self. Concept-of-self is appropriated from engagement in society. Social discourse supplies individuals with labels to be attached to practice. For example, the label of chemist or notions of individual responsibility. Such labels cannot be applied, however, in the absence of a continuous sense-of-self. This stratified conceptualization of the individual thus counteracts the strong social constructionist heuristic of collapsing practices of the mind and body into an all encompassing social discourse.

6.2   Language and Discourse

The argument that language is one practice amongst other, non-linguistic, practices is not to deny its power to shape learning. I am suggesting that the power of language to shape learning through the emergence of accepted discourse depends upon two related issues: the extent to which discourse has a referent in reality and the degree to which that reality holds meaning for a particular group of individuals within a specific context. Willmott (2005) suggests that whilst some social constructionists   deny the existence of reality, this is not true for all. He points to the work of Laclau and Mouffe (2001) and argues that:

> They simultaneously accept the existence of referents *and* insist that whatever reality is ascribed to them, this ascription is the product of a political articulation. For Laclau and Mouffe, the extent to which any ascription becomes solidified as 'truth' is the outcome of a hegemonic process – an outcome whose veracity has an indeterminate, politically constituted, relationship to its referent' (Willmott, 2005, pg. 763).

Thus, reality exists but is constituted through the discursive practices of powerful groups. The discourse of flexibility at Organichem would, from this perspective, be ascribed a reality, but this reality is the product of political articulation on the part of managers. For critical realism, on the other hand, a particular discourse is emergent from causal processes operating in the natural, practical and social orders. It has, therefore, a referent in existing reality rather than merely ascription through discourse. The flexibility discourse at Organichem is emergent from the socially real market conditions in which the company must operate and the discursive practices of agents inside and outside the organization. Once it has emerged, discourse becomes a property of culture and ideally real. However, its power to shape learning at RDL is curtailed due to the emergence of the competing discourse of individualism. This individualism is emergent from casual processes operating at the levels of technicians' embodied practices in the natural, practical and social orders. It is moreover, emergent from technicians' inner conversations and thus related to the elaboration of personal identity.

6.3   Identity and Learning

Learning is linked to the elaboration of personal identity and personal identity is multi-layered. Personal identity emerges from the inner conversation. Its emergence entails emotional commentary on individuals' natural, practical and social order concerns. It consists of non-linguistic and linguistic elements and is both non-social and social in origin.

This approach differs from social constructionism because it encompasses a visceral dimension to identity formation and learning. This is not to underestimate the importance of the social dimension. Nor is it to argue that social constructionist approaches are 'flat' to the extent that they disregard the multi-faceted nature of identity formation. Studies from the social constructionist perspective have shown, for example, how organizational identities, which are related to perceptions and beliefs about the organization, differ depending on position within the organizational hierarchy (Corley, 2004). I have argued that the occupational identities of RDL technicians have developed as opposition to management attempts to promote a particular organizational identity.

Moreover, it is not only organizations that contain multiple identities. Internal differences also exist at the level of the individual. Kreiner, Hollensbe and Sheep (2006) employ the concept of identity boundaries to describe how active (as opposed to passive) individuals use their agency to differentiate between internalized objects and representations. What I am suggesting, however, is that active internal negotiation between concepts appropriated from society does not do justice to the complexity of personal identity formation and, therefore, learning. The social constructionist version of identity formation views the individual as little more than a referee making judgements on external objects that permeate the mind. From the perspective of the stratified individual, the individual is active in the production of some of those concepts, and this activity is not necessarily linked to society.

6.4 Why this theory is social and the implications for research

Although the approach described in this paper is focused on the individual, it is social nonetheless. This is because elaboration of personal identity, and therefore learning, would be impossible without social identity and the related concept-of-self. Thus, appropriation of concepts from society and social discourse is indispensable to the emergence of personal identity and learning. For example, technicians' conceptualization of occupational identity as 'chemists' would not be possible in the absence of language. Moreover, occupational identities are shaped by emotional commentaries that stand in opposition to organizational identity, and both occupational and organizational identities are social. What is argued in this paper is that collective construction of social identity would not be possible without a pre-linguistic sense-of-self and the continuation of that non-linguistic sense-of-self through procedural memory.

The introduction of the stratified individual to organizational learning theory has implications for research carried out from the critical realist paradigm. Excavation of non-linguistic concerns and emotional commentaries using linguistic methods is, quite obviously, a difficult task. The contribution of critical realist ontology is to act as philosophical under-labourer to the development of theory (Bhaskar, 1989). It provides a framework through which to conduct research and interpret data. I have also argued that non-linguistic conceptualization can be understood through interrogation of concept-of-self. Technicians' linguistic conceptualization of themselves as chemists has been shown to be linked to appropriation of social discourse surrounding the meaning of the term chemist and to non-linguistic embodied engagement in the natural and practical orders.

7   CONCLUSION

My aim in this paper has been to develop a critical realist approach to organizational learning based on Archer's model of the stratified individual. This aim involved a paradox: to develop a social theory that incorporated individual and social learning, but which did not conceptualize either element as an epiphenomena of the other. In particular, I set out to challenge the hegemony of discourse analysis in social theories of organizational learning. I have attempted to show that learning is inextricably linked to the elaboration of personal identity. Personal identity emerges from an individual's emotional commentaries on natural, practical and social order concerns. Empirical data from RDL was used to support the developing theory.

I have demonstrated that organizational learning at RDL is individualistic and protectionist. This learning is, furthermore, irreducible to the development of an alternative discourse. It is emergent from emotional commentaries. Emotional commentaries linked to natural order concerns relate to non-linguistic 'gut feelings' about chemistry and the artefacts used in their work. This non-linguistic, embodied activity takes place through procedural memory and is implicated in the continuation of sense-of-self. Emotional commentaries in the practical order relate to individual performance and achievement. Performance and achievement are also related to social order concerns. Specifically, individuals' concerns regarding possible redundancies. I have also argued, however, that personal identity and learning, both individual and collective, are impossible in the absence of engagement in the social order. Social concerns relate, moreover, to situated context. The contribution of this paper is to present an alternative sociological approach to organizational learning, which encompasses both the individual and the social dimension. The approach also explains how concepts appropriated from the social environment interact with an individual's sense-of-self to produce identity and learning.

REFERENCES:

Archer, M. (1995) *Realist social theory: the morphogenetic approach*, Cambridge, Cambridge University Press.
Archer, M. (2000) *Being Human: the Problem of Agency*, Cambridge, Cambridge University Press.
Archer, M. (2003) *Structure, Agency and the Internal Conversation*, Cambridge, Cambridge University Press.
Berends, H., Boersma, K. and Weggemen, M. (2003) 'The Structuration of Organizational Learning' *Human Relations*, vol. 56(9), pp. 1035 – 1056.
Berger, P. L. and Luckmann, T. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, London, Penguin.
Bhaskar, R. (1989) *Reclaiming Reality: a Critical introduction to Contemporary Philosophy*, London, Verso.
Casey, A. (2005) 'Enhancing Individual and Organizational Learning: A Sociological Model' *Management Learning*, 36(2), pp. 131 – 147.
Child, J. and Rodrigues, S. (2003) 'Social Identity and Organizational Learning' in Easterby-Smith, M. and Lyles, M. A. (eds.). *Handbook of Organizational Learning and Knowledge Management*, Oxford, Blackwell, pp. 535 – 556.
Contu, A., Grey, C. and Ortenblad, A. (2003) 'Against learning' *Human Relations*, 56(8), pp. 931 – 952.

Corley, K. G. (2004) 'Defined by our strategy or our culture? Hierarchical differences in perceptions of organizational identity and change' *Human Relations*, 57(9), pp. 1145 – 1177.

Fairclough, N. (2005) 'Discourse Analysis in Organization Studies: The Case for Critical Realism' *Organization Studies*, 26(6), pp. 915 - 939.

Fleetwood, S. (2004) 'An ontology for organization and management studies' in Fleetwood, S. and Ackroyd, S. (eds.). *Critical Realist Applications in Organization and Management Studies*, London, Routledge, pp. 27 – 53.

Fleetwood, S. (2005) 'Ontology in Organization and Management Studies: A Critical Realist Perspective' *Organization*, 12(2), 197 – 222.

Gherardi, S. (2000) 'Practice-based Theorizing on Learning and Knowing in Organizations', *Organization* 7(2): 211-23.

Gherardi, S. and Nicolini, D. (2002) 'Learning in a Constellation of Interconnected Practices: Canon or Dissonance', *Journal of Management Studies* 39(4): 419-36.

Giddens, A. (1979) *Central Problems in Social Theory: Action, Structure and Contradiction in Social Theory*, Basingstoke, Macmillan.

Gold, J., Holman, D. and Thorpe, R. (2002) 'The role of Argument Analysis and Storytelling in Facilitating Critical Thinking' *Management Learning*, 33)3), pp. 371 - 388.

Gundlach, M., Zivnuska, S. and Stoner, J. (2006) 'Understanding the relationship between individualism-collectivism and team performance through an integration of social identity theory and the social relations model' *Human relations*, 59(12), pp. 1603 – 1632.

Heracleous, L. and Marshak, R. J. (2004) 'Conceptualizing organizational discourse as situated symbolic action' *Human Relations*, 57(10), 1285 – 1312.

Huysman, M. (2004) 'Communities of Practice: Facilitating Social Learning while Frustrating Organizational Learning' in Tsoukas, H. and Mylonopoulos, N. (eds.). *Organizations as Knowledge Systems: Knowledge, learning and dynamic capabilities*, Basingstoke, palgrave macmillan, pp. 67 – 85.

Kreiner, G. E., Hollensbe, E. C. and Sheep, M. L. (2006) 'On the edge of identity: Boundary dynamics at the interface of individual and organizational identities' *Human Relations*, 59(10), pp. 1315 – 1341.

Laclau, E. and Mouffe, C. (2001) *Hegemony and Socialist Strategy: Towards a Democratic Politics*, London, Verso.

Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*, Cambridge, Cambridge University Press.

Outhwaite, W. (2006) *The Future of Society*, Malden Mass, Blackwell.

Polanyi, M. (1966) *The Tacit Dimension*, London, Routledge and Kegan Paul.

Reed, M. I. 'Organization Trust and Control: A Realist Analsysis' *Organization Studies*, 22(2), pp. 201 – 228.

Taylor, S. S., Fisher, D. and Dufresne, R. L. (2002) 'The Aesthetics of Management Storytelling: A Key to Organizational Learning' *Management Learning*, 33(3), pp. 313 - 330.

Tineke, A. A. (2003) 'Learning by Storytelling: Workshops as Organizational Learning Intervention' *Management Learning*, 34(2), pp. 221 - 240.

Tomasello, M. (1999) *The Cultural Origins of Human Cognition*, London, Harvard University Press.

Wenger, E. (1998) *Communities of Practice: Learning, Meaning and Identity*, Cambridge, Cambridge University Press.

Willmott, H. (2005) 'Theorizing Contemporary Control: Some Post-Structuralist Responses to Some Critical Realist Questions' *Organization*, 12(5) 747 – 780.