The Value of Diversity in Creating Organisational Knowledge

Dr Andy Earwaker

Abstract

This paper considers the proposition that organisations need to fully utilise the knowledge of all their workforce if they are to add value to services and remain viable within their operating environment. Diversity has tended to be confused with deviance and as such has been wrongly perceived as a threat to organisational stability. In reality it is a naturally occurring phenomena without which evolutionary progression and development is not possible. Properly managed, diversity of thought leads to creative tension which challenges old preconceptions and stimulates new ideas as the basis of innovation.

Knowledge in organisations exists at a number of different levels and is influenced by a range of psycho-social dynamics. Discourse and social interaction between individuals are explored as pre-requisites for the sharing of knowledge. It is suggested that dialogue, however, has an important role in developing and maintaining self in a social context, which means that new knowledge acquisition is often a secondary and lesser outcome. Whilst therefore diversity might itself be natural, a degree of contrivance is required to optimise the benefits for a collective purpose. Organisations must be proactive in creating the necessary climate of trust and shared meaning to encourage the free flow of ideas, opinions and practice that can lead to new ways of doing things.

There is a risk that the volume and variety of views thus encouraged could be counter productive and organisations also therefore need to be clear about the combinations of experience and skill which might best generate ideas congruent with corporate aims and objectives. The paper concludes that the modern manager requires a wide understanding of the issues surrounding knowledge creation and transfer together with the implications for working practice. A variety of strategies and tools for this purpose are explored.

Knowledge and Organisational Culture

Organisational knowledge is a complex phenomenon. It is arguable, at one level, whether in fact it can exist as a distinct entity. There is indeed a case for saying that knowledge cannot in reality become part of an organisation given the illusory nature of institutional homogeneity. That is because all large organisations inevitably comprise a milieu of individuals and micro-communities identifiable by elements of shared relationships and normative behaviour as well as being generators and keepers of their own idiosyncratic knowledge bases, which remain quite distinct from the collective consciousness of the institution.

What gives the organisation as a whole its identity is its cultural form. It follows therefore that the strength of this, in turn, must influence the production and use of knowledge. Keesing and Strathern (1998) identified two main aspects of culture. The first of these is the operant socio-cultural system i.e. the rules, procedures and policies which seek to direct and govern behaviour and, secondly the ideational system of shared ideas, meanings and the general belief systems underpinning the ethos of the organisation. Taken together these provide the individual members of the organisation with a clear referent system or a set of basic tacit assumptions about how the world is, and ought to be, that a group of people share and that determines their perceptions, thoughts, feelings and to some degree their overt behaviour (Schein 1996).

The implied element of determinism is important because it suggests that there is scope for organisations to take a lesson from social anthropology and seek to directly influence cultural development through aligning beliefs with new rituals and ways of doing things. As Turner (1994) has observed, institutions are directly founded upon the emulation by members of common practice.

Defining standards of normative practice, whilst desirable in terms of exacting compliance and conformity with corporate objectives, is recognised as being less effective in directly stimulating new knowledge. Indeed, De Long and Fahey's (2000) research has identified culture as a major barrier to developing knowledge within organisations in that it tends to determine what will be regarded as "relevant" knowledge to the exclusion of other, equally valid, information. As such they point out that:

> 'Culture embodies all the unspoken norms or rules about how knowledge is to be distributed between the organisation and the individuals in it.' (De Long and Fahey 200:8)

Whilst, therefore, conformity may have its place in maintaining an organisations identity it is ultimately diversity (defined here as "the mix and various combinations of human differences" – Walker 1994: 112) and free will, which generate creativity, new knowledge and lead to organisational development rather than stasis. This implies that managers in organisations need to be proactive in thinking about which standards are, in reality, acting as barriers to new thinking and how normative changes might be used to positively influence the generation of new ideas. A frivolous but nevertheless valid example is that of dress code. Organisations often see dress as a key part of their cultural identity. Increasingly they may need to balance that against mounting evidence that people are more creative and inventive when

they are casually (and uniquely) clothed. The development of an appropriate knowledge culture is increasingly seen as an important first step towards the introduction of an effective "Knowledge Management" programme (Parlby 2000).

Knowledge and Diversity

It has been observed that:

> 'Thinking about organisations as if they were organisms had led to many of the most important developments in organisational theory over the last 50 years.' (Morgan 1986:39).

That may, or may not, be a valid assessment but it is clear that in looking at diversity in organisations and its role in knowledge generation there are some very useful analogies in the biological sciences.

Perhaps the first thing that biology teaches us about diversity in the natural world is exactly that i.e. it is part of the ordained order of things and it is entirely necessary. It is also inevitable. For example, consciousness presents us daily with an enormous range of potential actions or responses. Faced with similar problems to solve it is consequently axiomatic that different people will decide on different courses of action from their internal "menu". It is perhaps no wonder that when these decisions are taken within the framework of an organisation, factional contestation and struggle become routine over what is the best course to take. (Savage and Witz 1992).

Diversity in organisational context may be challenging to management in so far as it represents deviance from normative behaviour and involves selecting between alternatives with a corresponding loss of predictability.   As a palliative, biology also helpfully provides insight into the alternative – a world devoid of diversity. In his seminal work on consciousness and how matter becomes imagination, Tononi describes the working of the human brain:

> 'If a large number of neurons in the brain start firing in the same way, reducing the diversity of the brains neuronal repertoires... consciousness disappears...to support conscious experience, a large number of groups of neurons must interact rapidly and repeatedly.' (Edelman and Tononi 2000:36).

This is a powerful analogy. If the members of an organisation lose the stimuli to innovation caused by social interaction and merely "toe the organisational line" then it is not beyond possibility that the organisation will lose "consciousness" in the sense that a blind and unquestioning acceptance of its purpose will not assist its evolution and longer–term ability to respond to environmental change.

If diversity is an organisational fact of life then there is no choice but to manage it. That brings its own problems, as there are clearly tensions inherent in seeking a balance between the maintenance of organisational direction and enabling the development of tangential ideas and knowledge. Those tensions operate at both organisational and individual level.   For example, management is compelled to recognise the psychoanalytical and critical realist position that primacy for change rests with the individual (albeit in social context) and not necessarily in accordance with the established hierarchy. Diversity consequently represents a potential threat to

power relations and managerial authority. From the individuals perspective there is also risk. Hitherto there has been security in the familiar and the tried and tested. As Chomsky observed:

> '...we find that conformity is the easy way and the path to privilege and prestige; dissidence carries personal costs that may be severe.' (1989:10).

Notwithstanding such reservations there is a growing recognition that what Nonaka and Takeuchi describe as "Creative Chaos" is vital to the growth of organisations and their ability to weather change in a highly competitive environment. An alternative vision of diversity management sees less of a contest between "hostile camps" or stakeholders and more of a strategy for symbiosis. The biological analogy has a long and distinguished history. As long ago as 1899 Veblen was noting the capacity of organisations to shape the habits of thought that give rise to new knowledge and, in accordance with the laws of natural selection, determine through "competition" those that will reform the patterns of institutional life.

Practical Issues of Diversity and Knowledge Management

An understanding of the following key issues is probably a pre-requisite to the effective management of knowledge diversity. This is not an exclusive list.

- Subject and participant responses to diversity and knowledge sharing.
- Individual, social and organisational cognition as knowledge repositories.
- Tools for enabling knowledge creation and transfer.

Subject and Participant Responses

The uniqueness of the individual and their experience is a theme that connects to mainstream typologies of knowledge. Thus Polanyi's (1966) now classic distinction between Explicit (overt and clearly expressible) and Tacit (in the head, intuitive and difficult to communicate) knowledge, lead to an increasing focus on individual cognition. Similarly, the concept of meta-knowledge developed by Caryannis and others focuses on issues of individual awareness and consciousness. Even notions of knowledge as intellectual capital are predicated on the mining of collective wisdom. Others, notably Judge and Dooley (1997), have pointed to a direct relationship between levels of individual autonomy and innovation.

From this one might assume that there is little doubt as to the value of utilising these individual differences in perspective and knowledge to move the organisation forward. Prusak for one (2000) has referred to the creative potential of diversity as a key principle of successful knowledge management. Kolb and others see it as essential:

> 'Management of change and uncertainty <u>requires</u> that increasingly sophisticated and highly differential specialised knowledge is brought to bear on organisational problems.' (1994:147).

That implies an inclusive and pragmatic approach to the use of diverse workplace knowledge based on an acceptance of its benefits. In reality, however, even where diversity is not seen ass a threat it is often undervalued or disconnected from organisational learning. In addition some of those who advocate most strongly for diversity as a force for innovation have raised the

possibility that there is an optimal level of disharmony beyond which the health of the organisation will be at risk:

> 'Too many perspectives, too many sources of tacit knowledge, too many cultural traditions, can make knowledge creation difficult.'
> (Von Krogh, Ichijo and Nonaka 2000:153).

There may be a "Catch 22" here. Trying to keep large groups together for any length of time can be an organisational headache. The conflicting interests of individuals will ensure that there is a constant risk of fragmentation (Dunbar 1996). From a human resource management perspective it is, as Bennis (2000) has so aptly described it, like "herding cats".

Paradoxically, it is this very difficulty, the conflict of opposing and contrary viewpoints, which ultimately fires the creative process and leads to new knowledge. Leonard (1998) has referred to this as "Creative Abrasion" – the product of the deliberate combining of people with different skills, ideas and values. The result of that alchemy can be critical to the survival of the organisation through the creation of distinctive and difficult to replicate advantages, which give competitive edge or added value to services. The art (or science) involved in developing this innovative climate must rest in the ability to discriminate (in the non-pejorative sense) and select the most productive knowledge combinations. Initially there is probably an element of serendipity, which develops into adapting and shaping the various webs of mental connectivity in the search for the right alignments. In short this is a dynamic and interactive process of experimentation.

The cognitive differences of individuals have significant implications for those directly responsible for organisational problem solving and development. Nissan's Design Team, for example, hire people in pairs of contrasting preference profiles in order to stimulate creative tension. Their Director has referred to his approach to managing diversity as:

> 'A rich and yeasty opportunity for a kind of abrasion and I wanted to turn into light rather than heat.' (Source – Prusak 2000:62)

What this demonstrates is that adaptive and complex organisations will increasingly demand new behavioural competencies from their managers. An ability to empower and empathise with diverse and challenging people, to be cognisant of psycho-social dynamics and to focus on key aspects of organisational development are increasingly valued attributes.

This is illustrated by the fact that one of the main difficulties in utilising diversity to gain new knowledge is getting "buy in" from the individuals concerned. Minorities may, for example, feel inhibited within group discussions due to cultural/gender role norms or simply have a perception of their contribution as illegitimate (Finnigan 1982). Gender differences in particular can act as a barrier to the necessary sharing of perspectives or may influence how knowledge is used. Research has shown, for example, that male managers are likely to be more transactional in their approach to problem solving than their female colleagues whose preference is to adopt a transformational style (Rosener 1990). This is supported by Leonards (1995) work on "Signature Skills" the idiosyncratic preferences that people have to task working, cognitive approaches to work and the tools/methodologies with which they are most comfortable.

This does not mean that senior managers take the sole responsibility for identifying and "growing" innovation. Self-development has to play a large part. This may simply be a question of awareness. Pedlar (1986) for example has noted that often the recognition of differences can, in itself, be a stimulus for individuals to seek to develop their own knowledge potential. It is also, of course, essential that there is a more general "valuing of differences" to encourage learning from others. Strangely, that may involve an early trawl for areas of common ground and mutual trust. In this context the establishment of shared "language" which crosses the value and belief systems of individuals is essential. It is also perhaps worth noting that innovation frequently occurs at the boundaries between mind-sets (Leonard 1995), which suggests that individuals need to be enabled, through discourse and narrative, to explore the mutual parameters of their knowledge holdings.

Individual, Social and Organisational Cognition as Knowledge Repositories

There are four types of knowledge in an organisational context. The first of these is people held knowledge – that which is either within individuals or which arises as a result of their engagement with the outside world through developing experiences and practice. This self-contained knowledge thus encompasses both "tacit" and "explicit" forms. It also recognised the duality of people as cognitive and physical entities.

Secondly, there is a social knowledge, that which develops out of social relationships, through the dialogue and exchange for working together either in a dyadic or group situation.

Thirdly, there is systems knowledge, which is embedded in formalised procedures external to individuals, for example, the way things are done and routinised actions that are (allegedly) built upon accumulated wisdom and "best practice". There are clearly parallels here with the cultural norms of an organisation.

Finally, there is organisational knowledge. Of all the categories this is probably the most difficult to define because it operates on a number of levels. It comprises the gathering, codifying and use of all relevant knowledge from the individual, social and systems levels in order to further organisational aims. It is also knowledge about the organisation – how it is perceived and what it means to the people in it.

In order to maximise opportunities for knowledge creation organisations need to understand how knowledge and experience is acquired in each of theses areas. The link between individual and social knowledge is really central because unless diversity of knowledge and experience is shared with others then it cannot enter the organisational or systems domains and is effectively an "opportunity cost" in terms of potential added value or competitive edge.

A number of different research perspectives have been brought to bear in an attempt to understand this key issue. Stacey (2001), for example, has pointed to a movement from cognitive to psychoanalytical approaches in terms of understanding individual knowledge acquisition. There has also been a tendency for research to shift away from the individual towards the social and narrative forms of exchange (Snowden 2001). In turn this has redirected attention from imitation to participation and storytelling as vehicles of

transmission. The starting point, however, must be individual consciousness, which is idiosyncratic and rooted in a personalised "worldview" forged by both genetics and the values, attitudes and perceptions of experience. The former often takes the form of imprinted patterns of thinking or schemas. These have been described by Markus and Zajonc (1985) as:

> 'The dynamic, cognitive, knowledge structures regarding specific concepts, entities and events used by individuals to encode and represent incoming information efficiently' (Harris 1996:286).

These schemas will determine the degree to which an individual is prepared to form a psychological attachment to others - a first step in the process of developing social behaviour, that is "congruent schemas" (Foil 1996).

These internalised preferences for action may not only determine social capacity and therefore the potential for knowledge transference but also the degree of inherent creativity and new knowledge, which the individual is capable of generating. Boden (1990) has illustrated this by her distinction between highly introspective "H" type creatives – who are capable of truly original thought and "P" type creatives, whose innovative ability draws more widely on other experiences.

It has been said that:

> 'The sharing of tacit knowledge among multiple individuals with different backgrounds, perspectives and motivations becomes the critical step for organisational knowledge to take place. The individuals emotion, feeling and mental models have to be shared to build mutual trust.' (Nonaka and Takeuchi 1955:31).

Whether the sharing of knowledge takes place at all will depend upon a number of factors including the genetic predispositions of the individual, the degree of routine defensiveness that they possess (Cope 2000) their strategic aims and the nature of the social interaction.

The key message, however, is that knowledge transfer is a linear process of change, which will result in collective decision-making, or in a shared understanding of perspectives and transformed emphases.

What is shared, as the first step in the process, will be determined by the psycho-social dynamics of the exchange and the presence of shared meanings which enable translation and interpretation. In reality the interpretational aspect may be more significant than the information which is shared. This is because for new learning or knowledge to embed successfully, individuals have to adapt their own schematic maps in order to orientate themselves and make the necessary connections to their existing experiential domains.

Recipients need to know how the new ideas or ways of seeing the world presented to them fit with their own vision. Do they potentially fracture the vision, support it, or challenge it in a way that stimulates new thinking and a redirection? Culture, as a "silent broker" (De Long and Fahey 2000) plays its part on two levels. Firstly, it helps determine which ideas members of the group regard as relevant and non-fracturing. Secondly, the established organisational norms are influential in determining what the individual decides they are prepared to risk sharing. Thus knowledge and diversity are, to some extent, self-selecting.

There is another significant consideration about sharing diverse ideas between individuals that probably influences outcomes. That is to do with purpose and intent. Social Anthropologists have noted that people do not typically engage in discourse in order to further organisational or even group objectives or to challenge their own understanding of the world. Indeed Dunbar (1996) has suggested that far from pursuing such altruistic objectives most interaction is intended to fulfil important social maintenance processes of "Grooming, Gossip and the Evolution of Language" - the latter being less about common forms of communication for conveying conceptual data and more about ensuring the projection of an appropriate self-image. Even in formal business meetings the transfer of knowledge may be largely dependent on the desire to preserve status and prestige rather than a genuine attempt to find new interpretations. That may mean "playing safe" and not deviating from normal professional practice. Zack (1999), for example, has noted that most of a "professionals" activity will be aimed at delivering a perfect (and status reinforcing) solution rather than trying to find a creative one. The benefits are:

- A sound, justifiable, low risk decision.

- Professional status is maintained, as is the "natural order".

- The decision supports the view that professionals are the managing elite.

- Professionals retain their semi-autonomous position within the heirarchy – as they are "a safe pair of hands".

- Decisions based on past practice, are quicker.

From the perspective of managing and benefiting from diversity there are equally as many difficulties with this approach:

- The values and contributions of those outside of the "professional" discipline are disdained and therefore lost.

- People will be less inclined to present diverse views in the future.

- Decision-making is routinised and lacks creativity so that the organisation is less flexible and adaptive.

- The organisation becomes vulnerable to unforeseen environmental events.

- Opportunities for adding value to service outcomes may be missed.

Tools for Enabling Knowledge Creation and Transfer

What are the key lessons that can be drawn from this brief review of the role of diversity in knowledge creation?

There is, very clearly, a sense that the diversity of ideas and experience present in all organisations should be celebrated and managed to support organisational aims. There is some debate as to how protective it is possible for an organisation to be in terms of controlling the socio-cultural environment in order to stimulate creative potential. For example, there is a case for saying that changing the culture is an important pre-requisite to developing a climate for knowledge acquisition. However, Dixon (2000)

believes that processes of exchange and learning will, in themselves, lead to cultural change thereby obviating the need for an interventionist strategy.

Whether culture or knowledge exchange comes first is probably a sterile argument. What is clear is that social interaction across all levels of the organisation is essential for stimulating that exchange process and maximising the benefits of a diverse workforce. Managers have a key role to play in enabling that exchange process to take place not least because there are inherent personal and structural barriers to that happening. People have different mental models, they are afraid of losing "face" and status: they have conflicting personal objectives and generally lack trust etc all of which create a zone of discomfort around possible knowledge sharing. It is for the managers to dismantle some of these obstacles and encourage discourse and exploration within a safe environment. Opportunities for creative chaos need, of course, to be tempered by broad objective parameters based on a shared vision of the organisation.

A first step in this liberating process may well be to identify and remove stereotypical attitudes through promoting the benefits of diversity and highlighting the potentially unproductive nature of mirroring self-values. Eliminating prejudice and fear of the different will assist in creating a climate of trust in which dialogue can take place. It also sends a clear signal that being different is "normal".

The dilemma for management is the extent to which they should actively seek to engineer social interaction. Axelrod (1984) saw this as unnecessary given that co-operation is a naturally evolving survival strategy in a competitive world. Similarly, Lesser et al (2000) have referred to communities of practice as evolutionary phenomena. Conditions have to be right, however, for evolution to take place and managers may need to "kick start" this process. For example, in public sector bureaucracies, it may be necessary to instigate competition between communities.

Having created a safe environment for the exchange of ideas organisations will need to try to ensure that policies and practice in other areas are congruent with this approach. Training is a case in point. Zack (1999) has shown how most organisational training needs to be directed at what should be done and how, rather than giving a stimulus to motivated creativity – the area which has most potential for adding value to services but which has traditionally been subject to least investment.

Organisations also need to think carefully about the sort of communities, the mix of experience etc that would best deliver against corporate objectives. Managing and selecting knowledge combinations through the establishment of communities of practice, micro-communities of knowledge et cetera are practical examples. A fully directive approach is not, however, helpful. This is because knowledge exchange should also be seen as a process emerging through the localised planning of events and decision-making processes (Stacey 2001). A certain degree of autonomy at individual and group level is an essential part of enabling that to happen. The role of management is a loose-tight one, which provides opportunities for networking, a framework for action, and even, possibly, scripted scenarios for discussion and debate.

Finally, it is imperative that organisations look beyond their current structures and hierarchies. They need to think laterally and develop new skills in recognising and managing knowledge diversity. That is only possible

through gaining an understanding of the issues involved and the potential for organisational growth, which a diverse workforce provides. It remains an essential truth that:

> "if the achievement of effective information and knowledge management can be said to be dependent upon one factor above any other, it must surely be the importance that is attached to maximising the value of organisational impact made by employees.' (Milner 2000:84).

References

Boden, M. *The Creative Mind, Myths and Mechanisms.* Weidenfield and Nicholson, 1990.

Chomsky, N. *Necessary Illusions – Thought Control in Democratic Societies.* Pluto Press, 1989.

Cope, M. *Know Your Value.* Financial Times/Prentice Hall, 2000.

Davenport, Thomas H; Prusak, L. *Working Knowledge – How Organisations Manage What They Know.* Harvard Business School Press, 2000.

De Long, D; Fahey, L. *"Diagnosing Cultural Barriers to Knowledge Management.* The Academy of Management Executive 14 (November 2000)

Dixon, N. *Common Knowledge.* Harvard Business School Press, 2000

Dunbar, R. *Grooming, Gossip and the Evolution of Language.* Faber, 1996.

Edelman, G: Tononi, G. *Consciousness – How Matter Becomes Imagination.* Penguin , 2000.

Finnigan, M. *The Effects of of Token Representation on Partcipants in Small Decision Making Groups.* Economic and Industrial Democracy 3, 531-50, 1982.

Foil, C.M. *"Consensus, Diversity and Learning in organisations."* In *Cognition Within and Between Organisations,* eds. Meindl et al. Sage, 1996.

Harris, S.G. *"Organisational Culture and Individual Sense Making."* In *Cognition Within and Between Organisations.* Eds. Meindl et al. Sage 1996.

Judge, W; Fryxell, G and Dooley, R. *"The New Task of R and D Management: Creating Goal Directed Communities for Innovation."* *Californian Management Review* 39 (1997).

Keesing, R; Strathern, A. *Cultural Anthropology: A Contemporary Perspective.* Thomson Learning, 1998.

Kolb, D; Lublin, S; Spoth, J; Baker, R. *Strategic Management Development: Using Experimental Learning Theroty to Assess and Develop Managerial Competencies.".* In *Managing Learning,* eds. C. Mabey; P. Iles. OUP/Routledge, 1994.

Leavitt, H. J. *Managerial Psychology, 3rd Edition.* University of Chicago Press, 1974.

Leonard, D. *Wellsprings of Knowledge.* Harvard Business School Press, 1998.

Lesser, E.L; Fontaine, A; Slusher, J.A. *Knowledge and Communities.* Butterworth-Heinemann, 2000.

Mabey, C; Iles, P (Eds). *Managing Learning.* OUP/Routledge, 1994.

Milner, E. *Managing Information and Knowledge in the Public Sector.* Routledge, 2000.

Meindl, J. R; Stubbart, C; Porac,J (Eds). *Cognition Within and Between Organisations.* Sage, 1996.

Morgan, G. *Images of Organisation.* Sage, 1986.

Oliver, D; Roos, J. *Striking a Balance: Complexity and Knowledge Landscapes.* McGraw Hill, 2000.

Nonaka, I; Takeuchi, H. *The Knowledge Creating Company.* OUP, 1995.

Pedler, M. J. "Developing Within the Organisation: Experiences with Management Self-Development Groups". *Management Education and Development* 17 (Spring 1986): 5-21.

Polanyi, M. *The Tacit Dimension.* Routledge and Kegan Paul, 1960.

Rosener, J. *"Way's Women Lead."* Harvard Business Review (November-December 1990): 119-25.

Savage, M; Witz, A (Eds). *Gender and Bureaucracy.* Blackwell, 1992.

Schein, E. *"Three Cultures of Management: The Key to Organisational Learning."* Sloan Management Review (Fall 1996).

Snowden, D. *"Narrative Patterns."* Knowledge Management (July-August 2001):16-20.

Stacey, R. *Complex Responsive Processes in Organisations: Learning and Knowledge Creation.* Routledge, 2001.

Turner, S. *The Social Theory of Practices: Tradition, Common Knowledge and Presuppositions.* Polity Press. 1994.

Van Krogh, G; Ichijo, K; Nonaka, I. *Enabling Knowledge Creation.* OUP, 2000.

Veblen, T. B. *The Theory of the Leisure Class – An Economic Study in Evolution of Institutions.* New York: Charles Scribeners, 1899.

Walker, B. *"Valuing Differences: The Concept and a Model."* In *Managing Learning* Eds. C.Mabey; P. Iiles. OUP/Routledge, 1994.

Zack, M. H. (Ed). *Knowledge and Strategy.* Butterworth Heinemann, 1999.