

THINKING TOGETHER

Anthony Blake, August 2005

This paper has been written with the collaboration of the [Centre for Management Creativity](#) and its CEO John Varney, as a contribution to the development of LVT.

I explore the implications of what it means to 'think together' and how they illuminate and support the methodology of LVT.

LVT is usually expanded as [LogoVisual Thinking](#) but has other interpretations in which the 'T' is taken as Technology, Technique, Tools, as well as the more abstract Toponomics or the method of placement, space and form in thinking, which involves the physical, tangible and concrete positioning of thoughts.

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THE FREEDOMS OF DIALOGUE

A major premise of our essay is that if people are free to *talk* together they are more likely to be able to *work* together. The idea of 'freely talking together' can be misunderstood. It is usually assumed that when people interact at the bar or over coffee that they are talking freely. But this is not so. Even though it is true that valuable connections can be made in this standard informal way, most of the time it is for social purposes alone and, what matters even more, is that it does not involve *all of the people together at once*. The simple constraint of *everyone* sitting down together and talking for a set period without any imposed agenda is most unusual and can have significant consequences. What it does is introduce into the play of conversation a *container* such that something can *build up*. This 'something' is in general 'understanding' and in particular some sort of 'group mind' – but not the mindless group mind that is all too often displayed in our modern world.

The Socratic Dialogues of Plato have been a major inspiration of western civilization. They show us people in conversation, who have come together as 'philosophers' – that is, as 'lovers of wisdom'. We want to draw attention to some critically important features of this sort of dialogue.

- They are not being controlled by any authority or expert. Socrates claims no superior knowledge but simply the ability to start from the fact that *he does not know* and has to *enquire* and he needs the help of others. Perhaps we can think of him as the paradigm of the type of ‘facilitator’ who is a *participant*.
- The enquiry is not at all like problem-solving but more like seeking a *greater coherence* of meaning. This coherence affects the participants as much as the subject they are addressing. To grow in understanding of what they are talking about they have to understand each other better! To do this, they have to give up on some of their separateness such as is usually manifested in ‘opinions’ and ‘beliefs’.
- The dialogues are always been drawn towards an ultimate meaning, the Good; in modern parlance, a ‘strange attractor’.
- The admission of ignorance serves to open a space in which some new insight can develop. Without such a ‘gap’ there can be no movement or change. It is a core discipline that has to be learned through doing it and finding out for oneself.

The conversation is between friends, who choose to come together and who treat each other as equals. The modern pioneer of dialogue, Patrick de Mare, says that the purpose of dialogue is to develop *koinonia* – a Greek word that means ‘impersonal fellowship’. The Dialogues give us a paradigm for ‘thinking together’. Nothing can replace the essential feature of freedom to explore meaning with other people who are equal in status and authority. There are some fundamental reasons why this is so.

- If there is a powerful or authoritative person or persons, then they impose a restriction. The hierarchical relationships implied actively reduce the lateral diversity. Authority works by curtailing the freedoms on a lower level. Some managers have come to see it is an oxymoron for an authority to say that they ‘encourage initiative’ amongst ‘subordinates’. More attention needs to be paid to ‘horizontal’ structures of people ‘on a level’.
- Any kind of hierarchy is mechanistic. Organic nature is – contrary to a common assumption - not hierarchical but largely synergic – everything works together with the smallest microbe being as important as the largest predator. The living world is an ongoing dialogue of species. And humans are in a sense ‘even more than living’ because we are aware and can think. Hierarchical thinking is based on the example of machines. And also on traditional armies with a chain of command. It is striking how recently even military engagements are revealing the need for some other kind of organisation, because ‘conquest’ is proving the least part of the overall task of producing real changes in regimes and real initiative is shown to be needed in order to deal with complex changing situations. What works in complex changing situations comes out of the relationships between people.



- Hierarchy also tends to restrict information flow. The typical result is a separation between decision-making and doing the work. One part does the symbolic work of meanings and another the material work of production. So doing and thinking are separated, to mutual disadvantage. There is of course the ‘democratic ideal’ that all people involved in an enterprise should *in some way* be treated as equals with capacity for making an input into policy. The word ‘policy’ in fact comes from *polis* or ‘city’ and leads into our word ‘police’ with its overtones of enforcement. So the idea of policy-making involving all the people is radical. This means far more than voting. Voting is a reduction of an ideal input of meaning to simply a number that is counted. This reduction of meaning to numbers is rife in all walks of life and a major source of alienation and consequent dysfunction. It comes from a static way of thinking and we need to pay more attention to and learn about *flow*.

THE FEAR OF CHAOS

The prospect of allowing people to get together and talk about issues is often viewed with alarm or suspicion, for a number of reasons:

- Firstly, because the people are not trusted to come up with anything ‘reasonable’ or well-informed because they are being judged as unintelligent or wrongly motivated when their thinking diverges from that of the current authority or policy.
- Secondly, because any kind of open-ended process is considered as ‘chaotic’ or anarchic because what is ‘controlling’ it is not apparent in terms of static objectives and directing mechanisms and, therefore, cannot lead anywhere useful.
- Thirdly because it seems to make life even more complex than it is, because every issue has to go through larger numbers of people and cannot be dealt with by an expert few.
- And fourthly because people everywhere are eager to ‘get on with the job’ and not spend time thinking about why they are doing what they are doing in the first place (but one is reminded of Churchill’s famous remark, ‘Better jaw, jaw, jaw than war, war, war.’); which implies that ‘drive’, ‘commitment’, ‘team playing’ and hard work (looking busy) are always to be preferred to thinking, which is liable to cause trouble.

Problems, mistakes and misapplied effort result from some consequences of such attitudes:

- Not knowing what is really going on
- Not looking into the probable consequences of actions
- Not being aware of alternatives and different kinds of rationale
- Not taking into account that people are not cast in the same mould with the same point of view.

If there is a relatively free and open-ended conversation between people involved in an action or task, all these factors and many others come to the surface and can appear disturbing. In fact, they have been there all along, but swept under the carpet. The tendency is always to ignore or suppress ‘alternative thinking’ so that when it finally erupts we are caught unawares and are at a loss. Critical information, the mutual effects of different actions and what is felt as meaningful to the people involved have been long ignored.

A supremely important idea is being deeply considered these days in the context of globalisation. It is that the relative freedoms of expression, equal rights for women and minorities, access to a wide range of information outside of state control and so on are integrally linked to effectiveness in scientific-technological advance. Science is based on finding out facts and questioning what we take to be known. Technology relies on actually making something and seeing how it works. Innovation relies on the freedom to imagine other ways. ‘Free-trade’ with all its problems and difficulties can also be seen as ‘commercial dialogue’ and it is all too often not

realised that a kind of co-operation underpins the mechanisms of competition: the two are not antithetical but form a dyadic complementarity system where each is needed.

In cybernetics, fifty years ago, Ashby spoke of ‘requisite variety’ as a feature of a system that can respond effectively to changes in its environment. This means that the system has to have enough variables and flexibility of parameters for it to cope – to learn, evolve, adapt, etc. Variety is the very spice of dialogue. And the sheer experience of participating in a conversation of complex meaning engaged in many points of view, in making new combinations of ideas, coming up with various kinds of explanations and metaphors and involving the people as whole human beings with special feelings, needs, dreams and so on can of itself develop a new understanding of how we think, reason, decide and aspire. Experience of variety through other people links back into becoming aware of the internal variety in oneself. We have begun to appreciate the idea of ‘multiple intelligences’ – such as verbal, visual, kinaesthetic, social, emotional and so on – and wean ourselves from one-dimensional fixations. To make ourselves more able to think it is supremely helpful to be in the company of other people who are thinking – and in a variety of ways. The mind is potentially a diverse *community* of great versatility and beauty, if it is allowed to flourish and develop its capacities.

Each of us has a:

- Brainscape - the neural and chemical networks largely below the level of consciousness that are brought into action in various ways by the situations we are part of
- Wordscape – the wondrous nexus of words and meanings that we start acquiring very early on and that continue to grow throughout life
- Sensascape – the world of our physical perceptions
- Feelscape – the repertoire and language of the feelings that colour and drive experience
- Movescape – the pattern of movements, gestures and activities that underpins all our thinking and feeling
- Imaginisphere – the internal realm of images and dreams
- Socioscape – the network of relationships we have with others
- Landscape – environment of places, natural and artificial in which we move and have our being
- Mythoscape – world of images of the whole, the cosmos, history, cultures, stories including both mass entertainment and religions
- Commercescape – the nexus of tradings we do with various commodities that have shared values

Everyone can make their own list because these various landscapes of the mind are not separate things – as the physicist David Bohm points out in his book *Thought as a System* – and the way we describe them is integral to how we can personally manage their co-operation. All of them are interwoven and when we restrict their mutual influence we become far less intelligent. *Intelligence is the integration of everything in us, including all the ways we are connected to others and the world.* What is called ‘hard thinking’ is an ego-driven activity that narrows attention along set lines.

Another idea that is being banded about is that of *self-organisation*. The idea stemmed from discoveries in science of the behaviour of physical and chemical systems in which there spontaneously emerged new forms of order that were not predictable from mechanistic laws (though of course, utterly compatible with them). When it comes to human systems we have a kind of paradox: humans are intentional beings with aims, desires and so on and we cannot expect them to behave as ‘blind’ material systems do. Humans are always self-organising. But when it comes to people striving to think together, starting out like a bunch of separate parts, we can have something very like a material system. There is a widespread need for us to learn how to go from operating as a bunch of separate ego-driven personalities to thinking together in a holistic way. Something has to give way.

The parallels and differences may be summed up by the idea that, whereas we think in terms of a sufficient *energy* throughput to engender the emergence of new self-organised properties in material systems, when it comes to human groups we need a sufficient *information* throughput. This keeps the system away from lower

equilibria so that it can attain higher levels of coherence. If the information flow is restricted and the state of the group kept near its typical equilibrium, it is next to impossible for something new to emerge. It also means that the build up to the new level can be turbulent.

THE MANAGEMENT AND TECHNOLOGY OF THINKING

This leads us to consider that there needs to be a special kind of ‘management’ – a genuine ‘people management’ that treats people as *minds* - that can contain and foster the process of emergence. There is in fact a whole corpus of corresponding skills already being practised particularly in psychotherapy, where people have to deal with anxieties and uncertainties and need support, but these are rarely brought into play in the field of business management. Most of the reason for this is that business management is dominated by the ‘male ethic’ of getting results and winning while ignoring how people feel. But it is becoming recognised that feeling is not antithetical to thinking and is deeply involved in how meaningful our thinking can be.

However, management has an appreciation of systems and tools and understands to some degree that the gathering, processing and synthesizing of information is a central task. This task is generally and usefully seen as combining:

- Realism – finding out what is actually happening and can be verified
- Imagination – seeing new possibilities
- Understanding – seeing how disparate things are interconnected

When knowledge about how to do things is incorporated into tools and systems we call it a technology (knowledge of ‘techne’ or ‘how to’). The sociologist Warfield writes cogently about ‘intellectual technology’:

“What is needed is intellectual technology which frees the human mind to make most effective use of ideas.

“Such technology cannot be universal to all idea actions, but rather must be particularized to individual types of idea action. Fortunately, there are only a few major types of idea action – only a small set of categories of what can be done with ideas. For most policy-making purposes, idea generating, idea structuring, and idea communicating accommodate the bulk of group effort. The last of these, idea communicating, is almost universally regarded as a major difficulty in the work of organizations and groups. If appropriate processes for idea generating and idea structuring are used, the idea communicating can become an ambient, almost incidental by-product of such processes.

“Hence intellectual technology for helping generate and structure ideas as a part of group process can have a major beneficial impact in terms of unlocking human performance in policymaking, by making realizable currently unrealisable policy profiles. In particular, the democratic ideal cannot now be realized in most public policy efforts, but appropriate intellectual technology could go a long way towards making this ideal realizable. “ *Societal Systems*, p. 16

LogoVisualTechnology (LVT) is just such a technology. Note that a technology consists of three main aspects:

- A set of tools (what)
- A system in which these tools are used according to a structure of process (how)

- A context of purpose that determines how the tools and system is applied (why)

LVT's tools are ways of carrying and displaying information. Its system is based on an algorithm of a set of discrete steps of 'making meaning'. Its context – without which it cannot be very effective – is dialogue.

Management is pretty familiar now with IT (information technology) but this deals with information simply as data and not as meaning. Computers can crunch data, make calculations, etc. but have no concern with what any of it means. All of us know by now the GIGO principle – 'garbage in, garbage out' – and that there is a basic problem with many IT systems, which have to do with how people can use and understand them – that is, find them meaningful. LVT puts the 'logovisual' in the place of information, because it is always dealing with 'meaning that is seen' and not with data that is being processed in some kind of 'black box'. LVT does not deal with data in a computer sense but with meaning, with 'units of meaning' (or recognisable wholes) that are unities in their own right and not bits or bytes.

Computers are machines designed to do certain tasks. As is being increasingly recognised, it is a mistake to treat the human brain like a computer, not least because it has evolved to respond to new situations and become able to perform tasks we do not yet know.

“The widespread application of information and communication technology powerfully and insidiously invites us to think of learning in terms of the acquisition and manipulation of information. We may therefore forget that one can move through the mind's various planes on the basis of perceptual, conceptual, contextual, humorous, emotional, and logical associations, and mix these to create different kinds of associative patterns of thought.” Ilana Nevill, unpublished paper

We started with Platonic dialogue and it must seem a long way to go to arrive at a technology, though Plato himself was much concerned with systems of thinking. The open-ended free form of dialogue seems poles apart from a disciplined use of tools. We are not used to thinking in terms of a technology based on meaning, in which meaning is like the 'fuel' or working substance by which the function is delivered. Once seen in that way, we can then see that meaning has its own logic (or logos) and can guide the process whether in free dialogue or LVT process. Dialogue supports the LVT process – and should drive it – while LVT itself simulates important aspects of dialogue in its system.

THE WORKINGS OF MEANING

What does meaning mean? It would be wrong to produce a fixed and narrow definition because it is an essential aspect of meaning that each of us can go on finding new meanings for it!

- So, first of all, meaning is open-ended. Dictionary definitions are at the bottom end.
- Meaning also means something to *someone* and does not just drift around in the abstract, a someone who is an experiencing self with concrete issues, a specific nature and mind.
- And every meaning connects in greater or lesser degree with every other meaning. There is no such thing as a meaning in isolation.
- Then we might add that it connects the internal with the external, the higher with the lower, the particular with the general, the constrained with the free, the verbal with the visual, the immediate with the long-term, etc. Meaning is the contrast between them and also the way they are connected. *It articulates our experience.*
- So meaning is always seeking to make sense of the part and the whole, which is why it is inexhaustible. And this involves making sense with other people.

It important to recognise a basic two-foldness in meaning. Just as we are beings in a tangible physical world,

with some 'internal' world that somehow reflects the outer one while transcending it, so it is with any meaning. There is something tangible and fixed about it and also something implied or relatively hidden. That is how we are in dealing with other people, because we can see their bodies and hear their voices and so on but well realise that we may hardly know what is going on 'inside them'. We look in their faces and perhaps wonder what they are thinking. We hear them speak but sometimes wonder what they 'really' mean. There is no pure straightforward statement because everything said implies so much that is unsaid.



In our diagram we picture a 'face' and a 'back'. If we write something down on a board, then the line in the figure represents the plane of the board. The 'face' is what we see written, while the 'back' is what is 'behind' the board, out of sight. Nevertheless, it is felt, imagined, believed, assumed, implied, etc. otherwise we would just have marks that are just objects. What is at the back of items may be connected in ways that are invisible to us on the faces. It might involve images, feelings, memories, and intentions. In the theories of David Bohm, the face would represent the *explicate* – what has been brought out and named – while the back would represent the *implicate* – what is not known in an explicate way but which governs what can be explicated.

PUTTING THE PUZZLE TOGETHER

When we engage with others to think we are in effect playing a *meaning game*. In our simple model there are always two levels involved – the explicate or what we can see and touch and the implicate which we cannot handle in such ways. In conversation in fact we rely on countless cues of facial expression, tone of voice, feelings in ourselves and so on to alter us to what is behind the apparent process. Some theorists have claimed that there is a kind of 'information field' that we can access, which has holistic properties such that seemingly separate minds are attuned to each other.

For every meaning as for every person there is a 'face' and a 'back'. A 'face' may truly express what is 'back' of it but only for someone who can recognise what is being expressed. The face is visible to all but can mean something different to each one. We have this situation (where lower case letters in brackets refer to 'face' or the explicate and upper case to 'back' or implicate):

There is visible to all a statement (p)

Person A feels: this (p) means X To explain himself he says or writes (q)

Person B: this (p) means Y To explain himself he says or writes (r)

Person C: these [(p) + (q) + (r)] mean Z To explain himself he says or writes (s)

And so on.

The items in lower case are the faces, which are what can be pointed to, or spoken, or written down, or marked in some physical way. The items in upper case are the implications, which we cannot treat in such a way. But we can think of a kind of triangulation: by combining in some *form* the set of cues (or clues) we can see more clearly. For static, fixed thinking it is disturbing to have to *add on* further expressions and articulations in order to develop mutual understanding. But in a more holistic and flowing thinking it is no problem at all. A meaning game is where we can co-operate to develop meaning together.

In a game of meaning, we access what something means by 'adding' to it our own meaning. This is to *participate* – be a part of – rather than to manipulate as a separate operator. However, most of us are used to

striving for an end pointing which meaning stays still and is encapsulated in an explicate way.

It is by dealing with the connections between meanings that we believe we can and do progress in understanding them. The visible meanings (faces) can be seen as pieces of a puzzle that only make sense when they are put together in the right way. The pieces do not show us meaningful objects, only patches of colour, bits of shape and need to be arranged to make sense. As we build the puzzle (we are imagining that we do not have an illustration of what it 'should' look like) we find parts that are intelligible wholes (recognisable objects) and then how they might fit together as a picture. We have to act in good faith that there *really is* a picture to be found and that we have *enough* pieces to see what it is.

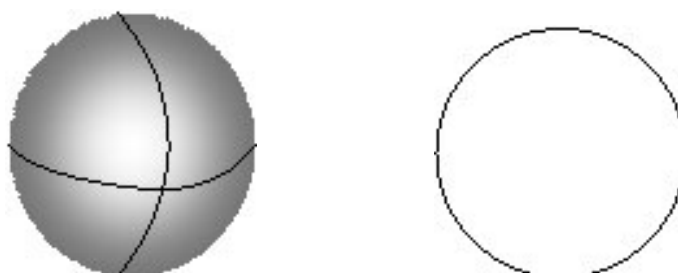
In this metaphor, we use the idea that putting pieces together can show us *something more* than we could possibly get from looking at them separately. Behind the surface 'face' meaning, there is another that can only appear when several are put together. This is a favourite theme of the classical detective novel.

“Learning is fuelled by the embodied belief that patterns *do* exist, *can* be found, and are *worth* discovering...Learning is essentially open-ended, and offering diversity within security respects that.” *Learning for Life in the 21 stCentury*, edited by Gordon Wells and Guy Claxton, p. 262

THINKING THROUGH SEEING

We started with dialogue, which is obviously *talking*. Talking is one of the most powerful ways of engendering thought. There are complex and deep inter-relations between what we can think and what we can say. Interaction with other people in conversation is a proven way of surfacing ideas and seeing connections between them. In the ideal, a group conversation simulates the inner process possible within any one person, though it is usually quite hard for any isolated individual to get out of the rut of his habitual thought patterns. One of the key advocates of dialogue in the modern world, the physicist David Bohm, speaks of thought 'as a system' in which he includes feelings, memories, impressions, sense of the body, gestures and all kinds of experiencing. This is reflected in our wordscape (language world). It is no exaggeration to say that the more we can expand our associations of words in range and depth the better we can think. People who stick together in jargon-ridden groups tend to involute and get stuck. When diversely minded people get together they have to create new connections. Flow of conversation is all-important. It is the very fount of the 'logos' the power of meaning, that is represented in the first part of the term 'logovisual'.

Talking is the most obvious and active part of the process. The second, and not so obvious, is what we are *seeing*. In the Platonic dialogues, it was highly probable that the participants were carrying in their 'mind's eye' a great deal of the *whole conversation*, forming connections and making the leap to higher level ideas to make sense of the whole. For most of us this can be quite hard, especially when the conversation is wide-ranging and goes deeply. We can help ourselves by having some form of visual display in which the totality of the content of the conversation is being represented and made visible to us. In our daily working lives we rely immensely on capacity to read, but the display we talk of is something more. Reading is in bits and pieces, one thing at a time. Displaying the totality is *representing the whole all at once*. If we imagine the totality as a sphere then a representation would be symbolized as a circle or cross-section that has its own degree of completeness.



If talking is like time and seeing like space, then the 'logovisual' is the *space-time of thinking*. As space-time is 'curved' when there is mass, so is the logovisual where there is meaning. The logovisual world is a landscape or universe through which we can navigate with the aid of appropriate technology. This approach was practised from ancient times in the *Art of Memory* where people would construct mental images of complex wholes and be able to 'walk through them'.

When we employ flip charts, overheads and Power Point projections and many other display devices these do not represent the whole. Overheads and power point bring into play the authority telling people or selling something. They are essentially anti-democratic. Flip charts seem more people-friendly. The facilitator jots down contributions and the papers are stuck to the walls on display for all to see. Typically, the people are asked to select what to take forward to another stage. There are various systems of 'voting' that also lead to selection. It is extremely rare for any attempt to be made to see how the various ideas are connected. They arise one after the other and are merely listed. Most of them are eliminated in due course.

Just what do we mean by 'representing the whole'? We mean having some kind of display that shows not only the bits and pieces but also how they fit together. If we just vote on importance or priorities piece by piece, we can never see anything of this. Seeing the whole means grasping what is manifold as *one*. Our visual perception has evolved to do this for us when we look at the world. We see in wholes and in such a way that we are free to look at any one thing in particular without losing the sense of the whole. All the time we are grouping together, even fusing together, disparate elements to make something appear to us that is recognisable as 'something' we can know out of the extensive variety of information we are processing. The brain actually generates 'whole images' that are being projected out into our perception and checked against reality, so we are always involved in 'making sense': forming hypotheses and refining them with further experience. An artist learns how to do this across a wider range and in more depth. But we all have the artist in us.

We do not need to know *how* we do this but we do need to appreciate and enhance this innate capacity.

SHARING MENTAL SPACE

It matters a great deal for a group involved in thinking together to be able to see what they are talking about. By having a common reference they are automatically more in tune with each other.

It is a common experience that people in groups having a discussion are actually each talking about something different but *notrealising* that they are. Being able to talk about the same thing while at the same time being free to explore new meanings as they arise is a critical factor in making thinking together a reality. If people are not free to explore what emerges, they might as well not be there or talking at all. If they are each following their own separate paths, they might as well not bother to be in the same room. The medium of talking cannot of itself provide a way of maintaining coherence. Behind anything said by one person is a framework, set of values, associations, purposes and so on that cannot be expressed *at the same time* as what they want to say, so tends to be left unvoiced. A simple way of describing this point is to say that every person who says something also has a 'mental' model of what he is saying that is not said. If people are in tune with each other, they are aware of what this is. But, if they have to develop such awareness, just talking will not do it.

The right kind of visual display can serve as a collective 'mental space'. Contrary to our common assumptions, what is 'mental' is not really inside our brains but in another kind of space altogether, and we can use an 'external' display to engage in the basic processes by which we make sense of the world in our perceptions. The display is like the 'whole images' we are generating to visualise how the world might be. In this case, however, such images are being generated in collaboration. It then matters a great deal that *everyone* is actively involved in the articulation of this special 'space'. This is because, otherwise, some people will not feel that what is being displayed involves their minds. When we have presentations, they actually alienate the intelligence of those who are presented to, because they contain only the mind of the presenter and *there is no room for the*

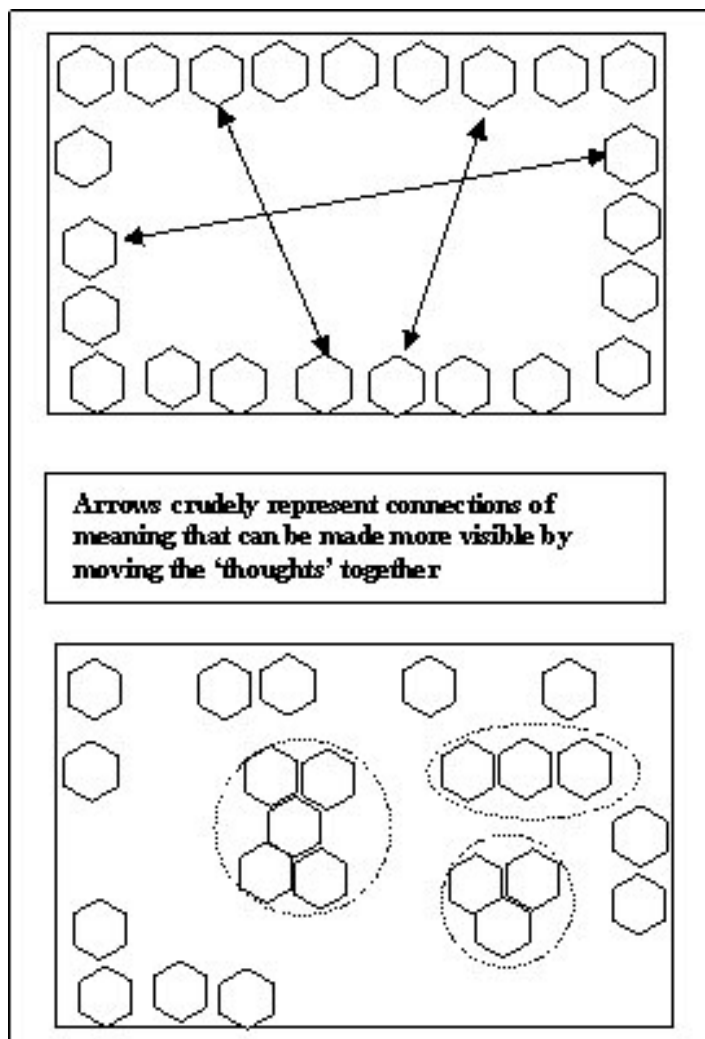
minds of the audience.

The construction of a collective mental space is akin to *architecture*. There are new studies being done that look at architecture more as a way of structuring experience than presenting nice facades. Architecture is now being seen as deeply involving how people move through spaces, that is, in *flow*.

The basic requirement is to have a display that contains an expression of the thoughts of all the people involved. Another requirement is that the form of this display enables them to see all these thoughts as one totality. Flip-charts address the first but hardly at all the second. Also, 'seeing the thoughts as a totality' requires us to *contain* them in one space. Yes, having flip-charts with the people's ideas stuck up on the walls so that they can wander round and scan them all is a good idea, but it is far more powerful if they can see a representation of their ideas more as 'all at once', because automatically their brains will then start finding ways of seeing connections and fusing them together. The box illustrates what we have in mind. It makes a 'visual' of the ideas we have discussed in words. But the real architecture involves *how we move through the spaces* it depicts.

Visual boundaries prove to be useful, as every artist who frames a picture knows. The *limits* of the frame *enhance* the togetherness of what it contains. Now this might appear as too simple a thing to matter much, but it amounts to a great deal. If the brain is led into processing things in succession, it will have a lesser activity in seeing wholes. This has been studied for example by Christopher Alexander who has determined that students fixated on linear verbal thinking are unable to grasp wholeness. Something like a frame or boundary activates the brain in a way that stimulates 'holistic' activity. It brings into play the visual sense of meaning. If we accept Bohm's 'thought as a system' we can see how this must be so. Impressions that we barely register consciously can greatly influence how we are thinking.

The visual-spatial sense is not noticed by most people and tends to be ignored and discounted in learning and thinking. We should remember that, not only does the framing of the display matter but also the very way in which the room is arranged. The arrangement is itself an expression of meaning and sends powerful signals about what to expect and what will be valued to those who enter the room. As is well known, sitting people in rows facing a podium produces an attitude of mind of being passive in front of an authority. The *framework* of activities, the forms in which things are arranged, and all such factors are sending powerful messages to the brain and conditioning its activation. In the slogan 'think outside the box' the 'box' can be the very room in which the people are working.



It is still the case that managers attempting to ‘think new thoughts’ often do so in hotel seminar rooms that simply reinforce old patterns of thinking. They are rigid, sterile and alienating. This is one of the reasons why there is some exploration of the value of taking managers into new settings, including mountaineering, yachting, trekking and the like. But little attention has been paid to the construction of environments conducive for thinking. Such were known in the past, for example, using gardens and courtyards with fountains. The remarkable High Trenhouse environment is a rare modern example and it is noteworthy that the various rooms in its buildings contain paintings of quality.



We can conceive of designing rooms that enhance holistic thinking. These need not exclude modern technology such as computers. A simplistic but telling idea is that when we have a room dominated by straight lines we tend to have a masculine, ego-driven authoritarian and linear state of mind; but when the room is dominated by curves, we can have a more feminine, mutually supportive and holistic state of mind.

PARTICIPATING

There is information as it exists in computers, documents and records – rather like inert objects. In some ways, it is similar to a virus that only comes to life when it enters into a host cell. In this case, the host cells are our thoughts. They give information the stuff of meaning. One important way is illustrated when we say, ‘This is MY idea.’ If we feel that some information represents our ideas, we will want to see that it is respected and used rightly.

When we speak of ‘my’ or ‘your’ idea we are giving expression to the fact that these ideas are part of experience. They have ceased to be things because we have identified ourselves with them. The ego-driven sense of mine and yours is just the tip of an iceberg. The underlying phenomenon is that something that was just a ‘thing’ – a set of words, a diagram, or whatever – has become an *experience*. It is invested with the reality of our minds. The items are no longer just out there, separate from us. Unless they do become ‘in here’ as well they will not matter to us. They will not have value. Similarly, we can attach or bring to something external a meaningful experience that ‘charges’ it with significance. There is a dynamic of seeking a ‘fit’ between things and experience, most of which is usually hidden from view but can become more articulate through LVT.

The philosopher Wittgenstein claimed that the meaning of a word is in how we use it, or what we *do* with it. In LVT, this is taken very seriously. It is in-built that the people involved in a process of thinking together actually get their hands on the information and do something with it in a tangible and visible manner. If the manipulation and display of information is in the hands of an expert or facilitator, the other people will be bound to feel that it is literally ‘out of their hands’ and no longer belongs to them.

Of course, what can be actually handled is only the ‘face’ of a meaning – the words or external physical representation of the meaning. But this activity carries with implications that can be understood by other participants. The movement and arrangement of the visible signs becomes itself a part of language.

This relates to the T of LVT. The most technical expression of this part of the name is *Toponomics* – literally, the ‘rules of place’ but meant to include ‘rules of movement’. Though many strides have been made in developing an appreciation of visual language relatively little has been done to incorporate *gestural language*. What we ‘do’ with things is an integral part of any new thinking. Gesture is the underpinning of meaning.

THE DISCRETE AND THE CONTINUOUS

A remarkable aspect of LVT is that it combines the discrete and the continuous. There are three main stages of the system:

- **Gathering** – articulating and bringing together a set of separate statements as the items or ‘molecules’ of meaning to provide the input to the next stages and circumscribe a ‘universe of discourse’. They are gathered into *one* display space. There is an agreement to conduct the ensuing dialogue as far as possible in a way that is always based on or referenced to this set of items. Every member of the group contributes the items so that, collectively, they ‘own’ them. It is also agreed that each person will make use of *all* of them and not simply the ones that are ‘their’s’. This means that they have in effect the basis of a common language and will always be in some measure talking about the same thing (are in the same universe of discourse).

At this stage, the world of meaning is seen as a set of discrete items randomly displayed.

- **Organising** – the many items are grouped together or clustered as deeper or higher level units of meaning (there are many ways of linking and grouping elements). The people have to come to see that a grouping of several of the original items together indicates a new kind of meaning. This is not a classification exercise, or to put the items into boxes. The way in which the groups are formed is of some interest but cannot be made too conscious. It can involve *physically* putting items together ‘to see how they look’, without knowing in advance that they will make sense. It can involve *feelings* towards some new meaning that cannot yet be conceptualised. And it can involve *intuitions* of what goes together before they can be explained. It is usually *after* the clusters have been formed that people work on giving what they mean verbal (or sometimes pictorial) expression. This is a critical phase because it entails making a jump in level of thinking. There has to be an ah-ha feeling about it.

At this stage, the items are grouped into meaningful wholes, but these are still separate from each other. Each of them will have its own new statement/expression of meaning.

- **Integrating** – the several new units of meaning generated in the previously stage are brought together to show their mutual relevance. They are formed into a system in which each has its proper place because of its relations with the other units. There are numerous symbolic methods for representing this step of integration. All of them depend on ways in which we can grasp *structure* and see it in relation to *process*. If the visible signs are arranged in a circle, a kind of structure, we are implying that there is some order of cyclic process. We need not be restricted to systems diagrams but can utilize any kind of symbolic representation of structure, including metaphorical images and artistic interpretations. It is particularly important to acknowledge the role of talking in this step. The group has a representation of structure but it needs also to be able to *tell the story* it conveys, the process it encapsulates. It is the telling of the story that enables the people to make the new level of information *their own*. This is because ‘storying’ necessarily involves the people reflecting *their own* lives!

At this stage, there is a single whole before the group that they have assembled from the new meanings generated in the stage before. It is a ‘continuous’ whole. The telling of the story brings the embodied meanings back into the universe of discourse in a personal and social way. It will obviously have implications for what the people do next. It will embody primary types of explanation and modelling.

The three stages deal with *different kinds of information/experience/meaning*.

- Gathering deals with pieces of information in words
- Organising deals with images or insights (seeing into)

- Understanding deals with stories or how we can ‘live’ our thinking

THE STATE OF THE PEOPLE

As the information is processed and rendered into higher levels of meaning, so something corresponding is being brought about amongst the participants. There is a qualitative change in *their mutual state of togetherness*. This is independent of any functional co-ordination. One might say that it is in their imagination because it involves the worlds of images and stories. Nevertheless, it is a reality. Functional co-ordination cannot lead of itself to a higher state of coherence, whereas such a state *can* lead to better co-ordination.

The process engages what is called ‘tacit’ knowledge. It must be realised that such knowledge is not merely about how things are done in the external world but even more importantly about how the people involved relate to each other. This relatedness has to include the realms of feeling, imagination and the unconscious because without these a person is not human. Obviously, these realms cannot be ‘problem-solved’ because they are not problems but what people are made of! The whole attitude of defining a problem and getting a solution and then moving on is inappropriate. What is needed is a renewable process of engendering coherence.

This coherence involves articulating aspects of experience that have previously been un-noticed or ignored as ‘not relevant to the task in hand’. We are assuming that all our task-oriented and problem-solving processes are in fact embedded in the realm of the tacit that includes *mind and meaning*. At the same time, we do not want to claim that this involvement of the tacit realms should always be worked upon. Such work requires time and space and energy that may be scarce. And we have to face the fact that organisations have been created in such a way that they allow us to ignore the inner world of people and concentrate entirely on function. It is next to impossible to justify expenditure on meaning creation when this cannot be seen as leading to definite results – as they are currently being measured.

In fact we have the situation where measurement in external terms is inappropriate, because the only way we have of registering an increase in what we call coherence is through our feelings. A few managers bravely concern themselves with the ‘happiness’ of their staff but there is more than happiness at stake – the very meaningfulness of the work they do.

We have to assert as a fact that intellectual work depends on emotional intelligence – which is to do with sense of meaning, aspiration, connection with deeper levels of one’s mind, relations with others and existential questions of life. Work on the state of coherence of people *being* together provides what can we think of as the ‘fertile soil’ for productive activity. It is well known but not often acted upon that what matters most for effective action is having a ‘ready mind’. It does not matter so much to have visions of the future or to find solutions to defined problems, because the future is really unknown and we can be best prepared if we are not cluttered with plans and expectations. For example, the elimination of assumptions can do far more than inventing a new thing to do.

THE FRUIT OF LVT

A ‘ready mind’ can be collective. This is the most important fruit of LVT practice. People who can talk together freely in dialogue are most able to respond intelligently to emergent needs, the ones that were *not* foreseen. The documented result of any LVT session does not matter so much as what can happen to the people involved. Together, they can *generate an experience of learning* that can serve them in the future. The ultimate fate of LVT is to disappear in terms of particular tools and structures and allow the primary *intent* of the method to emerge in its own right. Then *any* way of representing information or processing it can be used, including an entirely mental process.

This comes back into the individual creative mind. Einstein reported how he worked on his theory of relativity.

“The words of the language as they are written or spoken do not seem to play any role in my mechanism of thought. The psychical entities which seem to serve as elements of thought are certain signs and more or less clear images which ... are in my case of visual and some of muscular type. [These elements take part in] a rather vague play ... in which they can be voluntarily reproduced and combined ... This combinatory play seems to be the essential feature in productive thought, before there is any connection with logical construction in words or other kinds of sign which can be communicated to others ... In a stage where words intervene at all, they are, in my case, purely auditive, but they interfere [note, 'interfere'] only in a secondary stage.” Quoted in Claxton, *Hare Brain, Tortoise Mind*, p. 56

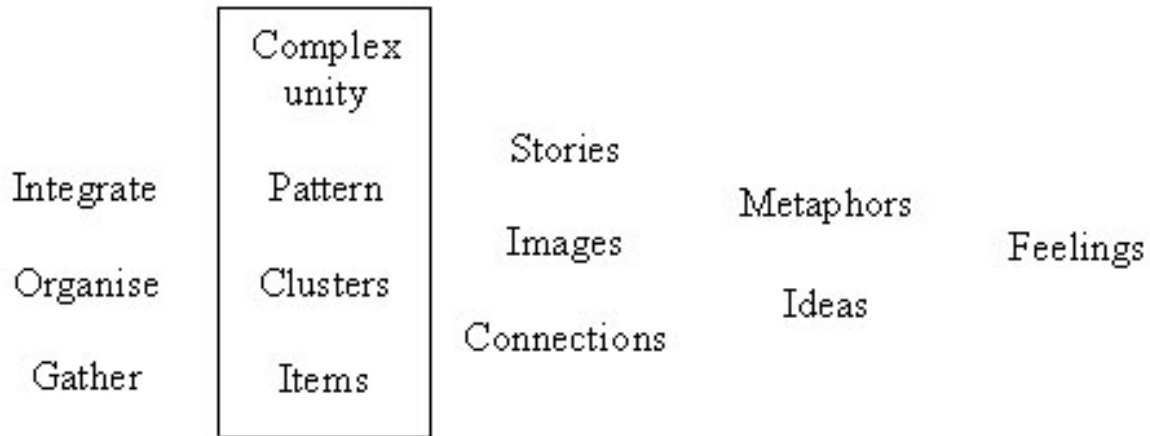
So, in the further realisation of LVT, the later stages of organising and understanding overcome the initial stage of gathering ideas in words. We should note the reference Einstein makes to a ‘muscular’ type of mental entity in relation to LVT’s emphasis on handling information as a crucial component. The more original the thinking, the less it relies on previously articulated meanings in words, because these words are carriers of old thinking! In the basic LVT process, the key question is whether the people can see *behind* the words to where they came from. The whole process is designed to help people move from their conditioned use of words through images, symbols and stories to a new understanding.

We must add, however, that the Gathering stage of LVT has an important task. This is to *break down* the universe of discourse into unconnected fragments. An analogy is that of the digestive system, in which incoming food is first broken down into amino acids, etc. that can then be built up into proteins corresponding with our needs. The more seriously the breaking down of previous stories is done, the better the overall result. In order to create a new story, the old one must be dismembered. Breaking apart the bonds between ideas or statements is not easy but universally acknowledged as a necessary part of creative thinking.

Another factor is the use of *disparate* information. A group is useful just because each person will see different things, but care must be exercised that seeing each other’s contributions does not produce a convergence of thinking, a kind of ‘herd’ thinking, which can be all too possible.

We mentioned that it was very likely that the participants in Socratic dialogue were capable of seeing the web of meanings in their mind’s eye. This is associated with the power of *visualisation*. An important spin-off of the LVT process can be training in visualisation. Because emphasis is placed on making meaning visible, people can learn to do this internally – and *reliably*.

The purpose of LVT is to build an intelligence system. It deals with the dilemma of both *connecting everything with everything in all possible ways* and also dealing with *only a relatively small number of combinations of elements*. An important step is made at the stage of Gathering, because this creates the constrained set of separate items of meaning that is used throughout. If we imagine, at the other extreme, the state of everything connected with everything all at once, then the next two stages are like step ups of voltage at certain intervals. Each step is an explication of the complex unity. The in-between levels remain implicate, but they are approximately expressed as shown here.



By having three explicit levels, what is between them is inferable or can be felt. If we have 20 items, 7 clusters and 1 pattern, these 28 elements can imply the rest. The 'single' pattern of stage 3 (Integrating) will have the possibility of many forms and can generate countless stories.

An intelligence system has to allow for the free flow of information through it, so that more or less every part can partake of it. Information flow may then be considered as the lifeblood of the system, carrying nutrients (solid food). The air or breath of the system is in the dialogue between the participants, in the talking. The *purposing* of the system, its origin of meaning, is in the transformation of the experiences brought into play.

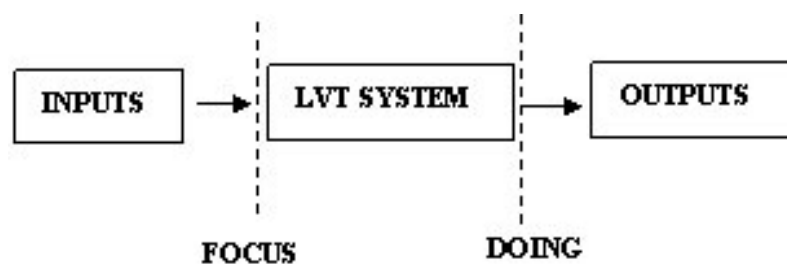
An intelligence system needs to be:

- *Resourced* - A throughput of information of sufficient quantity, quality and diversity
- *Linked* - A tracking of the transformation of this information into new forms
- *Coherent* - A sharing and compatibility of evaluation between different parts of the system (the people)
- *Unified* - A symbolic unification of all elements

On the one side of LVT, there is individual creative genius and, on the other, the routines of working life. LVT assists the sharing of mind for mind's sake. It is a way back into our original creative nature as a shared enterprise, which is the source of all meaningful productivity. It is a humanisation of our external work.

TOTAL PROCESS OF LVT

We described the basic process of LVT as consisting of three steps. These are actually only the technical core of the method, which needs an establishment of context. The context is provided by the people and their work situation. The core method is a system that has inputs and outputs.



Focus is the interface between the inputs and the initiation of the LVT work. The inputs can include:

- The people (and the way they have been selected)

- Documentation (or any kind of input of information)
- Issues (expressed and unexpressed feelings of what is important)

Focus is the formation of a universe of discourse by the participants. The stage of Focus can be reduced to putting a key question on the board to give direction and purpose to the session, which is provided by a facilitator, expert or leader. It is more meaningful for the participants themselves to create their own focus and this implies *dialogue*. We have the challenge *right from the start* of creating dialogue. Within this challenge is another, which is to arrive at the *right level of challenge* for the work to be done. The question to be posed has to establish consciousness of a gap in understanding that is neither too threatening nor too easy to deal with. Otherwise, there will be no felt rationale for engaging in the LVT discipline.

Generating a ‘good’ question is all important. It is often said that this is 9/10ths of the work. The more that the participants are involved the more likely it is that they will take the question seriously. But it is probably the case that experience in following a question already made for them is needed before they can manage question generation themselves. The ability to generate questions is a critical one for higher level thinking. It creates a gap or separation between what is known and what is to be discovered that affords the *right degree of challenge*: too little and nothing new will happen; too great and people will not even try.

There are various ways of arriving at the key question. One of them is to ask for suggestions, which the participants then vote upon. A drawback of this approach is that voting will often support a ‘safe’ or unchallenging type of question and eliminate the more insightful ones. Another way is to assemble the suggestions and have the group process them in an LVT way. This means, to cluster them in groups and look for the deepest level of meaning in them. This second method can bring people along into deeper levels.

Dealing with questions in depth can show people how what is involved – in problem-solving for example - is the *way they are perceiving and expressing* the issue. The meta-question is, ‘What is the question?’ The questions that people come up with need to be understood in terms of their interconnections. In a way, one question can be seen as the ‘answer’ to another. The *whole* nexus of questions that come to mind contains the deeper question. Simply to vote is the crudest way of dealing with this.

Not only does the focus of mental attention have to be addressed but also the *state* or coherence of the group. This can be addressed in different ways and at many levels in the initial phase. These are illustrative:

- Each person presents him/herself to the others
- The group undergoes some kind of experiential exercise
- They engage in some non-verbal activity such as collage
- They dialogue

Dialogue means some measure of free-floating discussion with no immediate goals. This is rarely done, because of the culture of ‘time is money’ and ‘let us get on with the job’. We need to emphasise that dialogue is not the same as informal chats. It has a special kind of intention. Its potential value in coming to a focus is to alert the minds of all involved of deeper underlying strata of meaning. If there is any degree of relaxation and flow some people will spontaneously have insights that will surface again during the work.

In the psychotherapeutic work of the philosopher Gendlin, the term ‘focussing’ is used to mean bringing into awareness things that are presently only vaguely felt or sensed. The relevance of this to the management field is that it matters a great deal to help the participants dwell on and bring to consciousness the subliminal, implied, apparently peripheral and ill-defined content of experience because in these areas are to be found the new insights.

Focus therefore means bringing the participants into shared direction of attention (but not a tunnel vision!) that

as far as possible they have generated themselves. Focus is akin to a laser beam used in making and seeing a *holograph*. To the unaided eye, a holograph looks like a random array of areas of light and dark. The Gathering stage of LVT can seem similar. When the right laser beam is applied to the holograph, a three-dimensional image appears. This is what develops through the stages of LVT. So we always have to bear in mind that what makes meaning is what we bring to it.

Doing is the name of the interface between the LVT system and what happens next. This stage can be given a whole host of descriptive names, such as ‘producing’, ‘applying’ and so on, depending on the context. This mode has actually been involved in the steps of the LVT system itself. In the stage of Organising, people are asked to produce or create or discover new meanings, which can sometimes be expressed in the form of images. In the stage of Integrating, we spoke about the creation and telling of stories. Neither the images nor the stories can be reduced to the information being processed – they are always something more – and count as acts of production, where the group or each person in the group has to *make* something.

Another descriptive name we can give to this stage is *revelation*, which means that something is now seen and known that was not before. In broad outline, there are these four main areas of revelation. The underlying question is, ‘What do you see that you did not see before?’ This can be far more than just an idea, when it is a realisation of something that has become an integral part of the person and not just in their heads. Such a realisation/revelation can be expressed quite impersonally – as a theory of change for example – or deeply personally – as a declaration of intrinsic values.



Even when such deeper considerations are neglected, it is a fact that a tangible kind of closure is needed for the process to complete. What form this can take depends on the group and the context. There are these requirements:

- It must address the initial focus of the work
- It must involve all the people
- It must be tangible
- It must be complete in its own terms
- It must have the quality of a personal statement or expression
- It must encapsulate not only what has been learned but also how it is has been learned

In the diagram, we included revelation about learning. There is integrated into LVT method the understanding that *our difficulties arise because of the way we think and that, if we can think differently, these will be resolved or transformed in useful and creative ways*. This is the very essence of ‘revelation about learning’. Learning is not reducible to acquiring additional information or ideas but going more deeply into how difficulties arise because of our misunderstandings and why these arise in the first place and removing disabling beliefs, assumptions and trapped emotions – like clearing the drains!

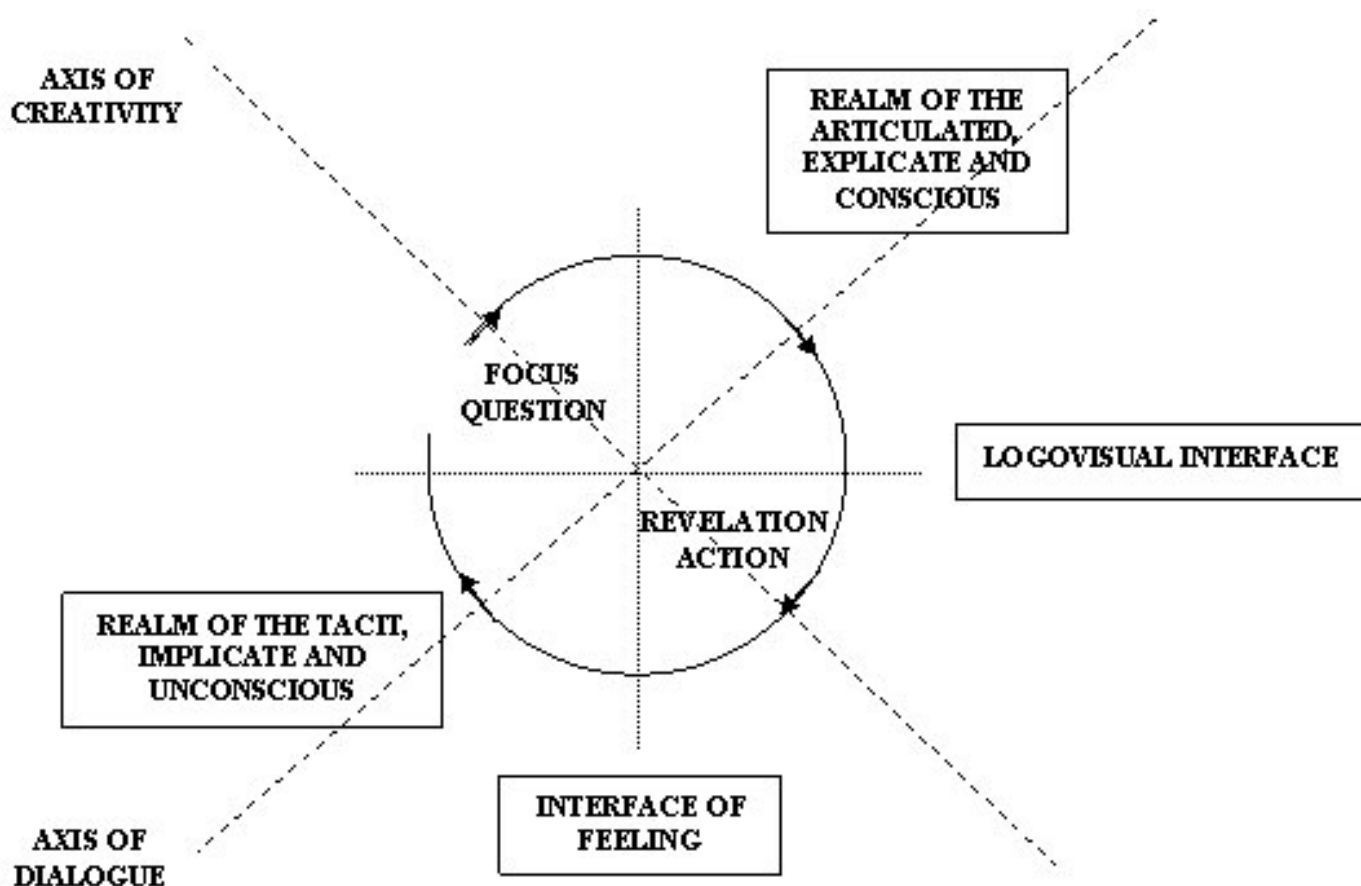
The core of LVT can be called *learning how to learn*. It is not just a method to produce a result but the deepest

result is in understanding the method itself. Each person and group will develop this method in their own ways.

THE WHOLE

The diagram below is an attempt to create a logovisual of many of things we have discussed. It has no final value as being 'true' or 'right' but simply serves to bring various aspects into view at once.

One important aspect is indicated by the circle and arrows around it. It suggests that we can move out of the tacit and implicate into the articulate by a series of steps, but then we return to the unconscious again. Actually, it is not 'we' that does this but some of our experiences. It may surprise that it goes back into the unconscious. But this is just as it is in learning how to drive a car. When we begin, we have to 'think' about what to do. If we went on 'thinking' while driving we would in fact be dangerous drivers because our reaction times would be greatly slowed down. By bringing things into consciousness we can change them, but then they need to go back into the 'brainscape' and leave our minds free for other things.



The bottom left hand corner of the quadrant is also the realm of sleep. It is not for nothing that trainers advise one or two nights of sleep as part of the course. In sleep, the brain can assimilate adjustments to its programmes.

The bottom right hand corner, where we have 'revelation' says that when we come to this, we are able to encapsulate a vast amount of experience and information and connections in just one simple thing. All the detail is forgotten because it can be accessed at any moment when needed.

The top right corner is the realm of the LVT system per se. It is the opposite and complement of the unconscious. The top left corner, where we have 'focus' is the complement of 'revelation'. It is the question for which the revelation is the answer.

The four axes – creativity and dialogue; logovisual and feeling – are also complementarities. Each axis bridges the two sides of it.

In particular, dialogue – with which we began – links the generation of questions (focus) with realisation (revelation). The group creates and answers its own questions. This is supremely important. This is where LVT practice thoroughly engages with the original inspiration of dialogue.

References

Alexander, Christopher; *The Nature of Order*

Ashby, R.; *An Introduction to Cybernetics*

Bohm, David; *Thought as a System and On Dialogue*

Claxton, Guy; *Hare Brain, Tortoise Mind*

Claxton, Guy with Wells, Gordon (eds); *Learning for Life in the 21 stCentury*

De Mare, Patrick; *Koinonia: From Hate, through Dialogue, to Culture in the Large Group*

Warfield, J.; *Societal Systems*

Yates, Francis; *Art of Memory*

Anthony Blake is Director of Research at Centre for Management Creativity. He is co-author of two books on LVT - *Logovisual Thinking: a guide to making sense* and *Making Meaning*. See www.logovisual.com for further LVT references, articles, books, resources and training.