FELDENKRAIS LEARNING IN THE LIGHT OF DAVID BOHM'S DIALOGUE MODEL

Ilana Nevill

In this fascinating comparative exploration of the physicist Bohm's understanding of dialogue and Feldenkrais practices, Ilana draws on personal experience to illustrate her message. The message is that we can let go of top-down authoritarian and 'knowing' control of processes and allow what is truly needed to emerge by co-operation. This is a radical approach in any healing profession, which still carries with it the impress of 'Doctor as God'. The effectiveness of the *Feldenkrais Method* is said to lie 'in its ability to access the nervous system's own innate processes to change and refine functioning'. The article has been shortened and edited for publication in the Newsletter.

The first criterion of success in any human activity, the necessary preliminary, whether to scientific discovery or artistic vision, is intensity of attention, or, less pompously, love.
W. H. Auden

Love does not consist in gazing at each other but in looking together in the same direction.
St. Exupéry (Author of *The Little Prince*)

What is important is that you get the person to love himself, not just to like himself ...If you take a person who hates himself, has no confidence to stand on his feet. Well, who can do that?
Moshe Feldenkrais June 20, 1977

The distinguished theoretical physicist David Bohm

(1917-1992), a star among Robert Oppenheimer's students, considered by Einstein as his "*intellectual son*", and by the Dalai Lama as one of his "*scientific gurus*", was among the pioneers who revolutionised quantum physics. Bohm's multi-dimensional model of reality treats the whole of existence, including matter and consciousness, as an unbroken whole: Like the domain of discreet particles, characterised by amazing inter-connectedness and mutual responsiveness over enormous distances, the 'reality' we see about us - with all its apparently neatly separate objects and creatures - participates simultaneously in two orders. The level of the *explicate order* of material manifestation is no more than the surface appearance of a second and "higher" or "deeper" layer of existence - the *implicate* or *enfolded order*. This can be described as a latent field of potentiality where everything is in a relation of *mutual participation* with everything else. It is ultimately from this order that everything *unfolds*. "Nothing is completely itself and its full being is realised only in that participation".[1] Most of us, however, have a completely different perception of reality because we believe that thought is a faithful representation of "truth" or reality "out there".

Bohm's lifelong exploration of the nature of thought and creativity crystallised in his *Dialogue Model*, a kind of practical laboratory for the investigation of thought as *process or active movement:* "Thought is movement, yet thought also attempts to hold fast to itself and seek security. It does so by entering more deeply into a particular thought.."[2] Locked up in fixed form, thought can be likened to the "lights of Las Vegas which prevent us from seeing the universe."[3]

Moshe Feldenkrais (1904-1984), an engineer with a Ph.D in physics and a martial arts expert, used to say "Our learning is the most important thing we have!"[4] and insisted that real learning is always instantaneous, organic, and entirely natural. (This is not the case in conventional 'learning' by rote, being trained like an animal, or academic learning leading to a diploma or degree.) That was the way Feldenkrais himself had acquired the skill, competence, and knowledge which made him an accomplished Judo master, allowed him to avoid a knee operation with uncertain outcome in the 1940s, and turned him into one of the most inspiring teachers many people ever encountered. He was the kind of teacher who does not "teach" but instead sets up appropriate conditions for real learning.

Replying to an interviewer wanting to know who had actually taught the by then acclaimed

somatic thinker and teacher, Feldenkrais said in 1973:

> "Myself. I refused to go to the university to learn medicine. I refused to be wired in like everybody else. I said I don't mind making my own mistakes, but I don't want to learn by the authority of a known professor. He will convince me that he knows better and in half a year I will lose all my curiosity. I'll be learning like everybody else – and get a good diploma." [5]

David Bohm's Dialogue Model can throw some thought-provoking light on the process of self-directed and self-organizing learning that is characteristic of the method which Moshe Feldenkrais developed in the course of his life.

Challenging *Thought* to become Conscious of Itself - Inviting *Action* to become Aware

Both Feldenkrais and Bohm had a holistic vision of man as an evolving conscious being. Both were convinced that expansion and transformation of human consciousness far beyond its present limitations are possible - and in fact urgently needed in view of increasingly violent conflicts and serious problems on the individual, social, and global scale. Both believed that real understanding of these issues is gained by giving our thoughts and actions sufficient *attention*. They were also in complete agreement that the four components of action – *thinking, feeling, sensing, and moving* – are always equally involved in action, because, as Feldenkrais said, they "never occur separately, never, not for an instant."[6] That means if one aspect of the person begins to change the others are bound to change too.

"We have got to learn somehow to observe thought." [7] David Bohm challenged *thought* to become aware of itself and of its consequences because we tend to assume that our representations are true pictures of reality rather than relative guides for action.

> "Thought is constantly participating both in giving shape and form and figuration to ourselves and to the whole of reality. Now thought doesn't know this. Thought is thinking that it isn't doing anything." [8]

As long as we are unable to see how our thoughts actively create the very reality they simply appear to reflect, we will never solve any of our problems. Worse still: "Practically all problems of the human race are due to the fact that thought is not proprioceptive. Thought is constantly producing problems." [9] [The term "proprioception" is used by Bohm in the etymological sense, meaning "self-perception". Physiologically, it refers to the function of receptors in muscle and tissue that respond to stimuli produced within the body]

Moshe Feldenkrais was convinced that "the only thing which is amenable to us is action"[10] and therefore focused on *action* and more specifically movement:

> "We must understand our intention and how that intention is realized...If we know that clearly, then we have infinite means."[11]

Feldenkrais called the state of maturity based on understanding of what we are doing the "potent self", entailing freedom from compulsive conditioned behaviour, self-reliance, capacity for self-reflection, self-observation, and responsible thought and action. The "*potent" self-image* matches potential capabilities much more closely than the average self-image, which tends to occupy only a minimal fraction of its potential and is often accompanied by a sense of inadequacy.

The concept of "self-image" is central to Moshe Feldenkrais's thinking and can be compared to what David Bohm calls *tacit infrastructure* (see below). An individual's (mostly unconscious) self-image, largely the result of early socialization and education, determines how that person thinks, feels, and acts throughout life.

The frequently enormous gap between reality and a person's self-image can only be effectively reduced by correcting the image – rather than trying to improve particular skills and actions. To allow such crucial adjustment to emerge Feldenkrais developed a dual approach primarily concerned with the *motor element in the self-image* whose effectiveness lies in the ability to access the nervous system's own innate processes to change and refine functioning.

a) In *Awareness Through Movement (ATM)* students are guided, mainly verbally, to discover (via the kinaesthetic sense) the implications of mind and body being one inseparable whole.

b) In *Functional Integration (FI)* an individual pupil-client learns the same – this time mediated mainly non-verbally through touch.

In both the experience of skilfully structured, yet playful and pleasant movement sequences

sharpens the learner's attention – particularly for the crucial relationship of the skeletal system to gravity. This experience shows, for instance, how the harmoniously functioning and moving whole is qualitatively much more than the sum of its parts, and proves how amazingly effective just imagining an action can be. Heightened awareness alerts learners both to a deeply ingrained tendency of trying too hard to succeed and avoid mistakes at all cost, and also to hitherto unthinkable new possibilities of moving, sensing, thinking, and acting. The process is spiced with challenges such as noticing incoherences: that intention and action are often incongruent, for instance, or that what one *thinks* one is doing does not at all correspond to what one is actually doing.

The aim is to assist learners towards freeing themselves from habits of self-control and thought, which restrict creatively spontaneous responses to the demands of the present moment. The expected gain is refinement and continuous maturation of the human nervous system as a whole; in other words ongoing acquisition of less harmful and destructive habits.

David Bohm's Dialogue Model

Very early in his career Bohm had come to see one thing very clearly: In the world of science, ostensibly concerned with truth, fierce competition, hostility, and violent strife are in fact as endemic as in the world at large. The scientist-turned-philosopher gradually became convinced that contradictions and conflicts in the structure of human experience at all levels (individual, social, international) would only be resolved if one condition is fulfilled: all the largely unconscious, often rigidly narrow assumptions, value judgements, and beliefs underlying most thought, decision-making, and action (Bohm called this the *tacit infrastructure* and allocated it to a *1st implicate order)* have to be made conscious and effectively neutralized. This can only happen by getting in touch with the power of creativity inherent in all embodied life, a *generative order* or *2nd implicate order*, which gives rise to change and evolution everywhere in existence. The practice of dialogue serves as a laboratory for exploration of such expansion and transformation of consciousness.

David Bohm's definition of Dialogue

While the word "dialogue" – in contrast to "monologue" – is usually understood to mean a conversation or discussion between *two* persons or the representatives of *two* groups, Bohm's definition differs significantly from that found in a dictionary:

> "The term dialogue is derived from a Greek word, with *dia* meaning "through" and *logos* meaning "the word". Here "the word" does not refer to mere sounds but to their meaning. So dialogue can be considered as a free flow of meaning between people in communication, in the sense of a stream that flows between banks." [12]

It is important to realise at this point that such dialogue – according to its originator - can be practised by an individual, by two people, and by a group of people. The following dialogue criteria can therefore be applied in order to understand an individual's perception and learning during an Awareness Through Movement lesson as much as during a Functional Integration session - no matter whether this person happens to be in the role of "teacher/ practitioner" or "pupil/client".

When you participate in a dialogue group you will soon begin to experience how much of the fragmentation, alienation, and conflict existing in society at large sooner or later begins to surface in this microcosm. At least in the beginning stages of the process, different, often diametrically opposed, values and viewpoints start clashing more or less violently, providing opportunities for astonishing insight into the all-pervasiveness of habitual and compulsive thought-patterns and purely automatic emotional reactions. With some practice, the capacity for detachment, patience, and empathy with others and with yourself grows, and dialogue gradually becomes less agitated and uncomfortable.

Rules of the Dialogue Game - Essential Features of Dialogue

- When a dialogue group meets for the first time, a facilitator explains principles, aims, and basic rules, and makes sure that these are understood, accepted, and respected. Once the dialogue process has taken off, the facilitator role becomes redundant and, in the best case, disappears altogether. The principles of authority and hierarchy have no place in dialogue.
- Participants agree that their group – in contrast to the usual work group – will get involved in free play of ideas and completely undirected inquiry – *creating the path while walking.*

- There will be no particular agenda. No decisions are to be made, no problems to be solved, no results to be achieved, no attempts made to change anything. There is only one task: to pay attention to what is happening within oneself and within the group.
- Everybody's contribution is welcome, valuable, and valid. In other words, no idea, no assumption, however "bizarre", "mistaken", "silly", or "mad" it might appear, is to be rejected.

Those who cannot cope with a situation where neither cozy social chit-chat nor intellectual oneupmanship have a place will usually leave the group. The others will gradually begin to understand and live the spirit of dialogue. Eventually they may even learn not to feel too uncomfortable when the occasional long silence occurs – *an empty open space* – where anything can come in, where it is possible to communicate coherently in truth. "Truth does not emerge from opinions; it must emerge from something else – perhaps from a more free movement of the tacit mind." [13]

Let's turn at this point to my experience working with a little boy called William and see how the above Dialogue criteria can be applied.

1) Abandoning the principle of conventional authority and hierarchy

As a Feldenkrais practitioner I was obviously a threatening adult for William at the beginning and the issue of authority needed to be negotiated very carefully. During the three year old's first Feldenkrais session there had not been the slightest possibility of my hands getting anywhere near his body without him saying "I want to go home now!" However, it was not surprising that he was suspicious and scared. He had experienced violence very early in life. A victim of hydrocephalis and resultant cerebral palsy, William had undergone surgery soon after his birth when a plastic tube was implanted under his skin. This allows excess fluid to drain away from the ventricles of his brain. More recently a physiotherapist had hurt him while trying to encourage his spastic left arm to lengthen by pulling it away from his chest. Emma, the little boy's mother, refused to go through the daily arm-pulling ordeal as she was supposed to and instead decided that Feldenkrais might be a more promising option.

A break-through came several months after we started play-working together. While galloping on a pretend horse – supported by my hands from

behind – the little boy suddenly turned round, looked me straight in the eye, and said: "Ilana, you are *actually* touching me!" At that moment we became friends and the authority-issue was settled.
It was largely thanks to his parents' enlightened attitude and unfailing support that William had been granted a fair chance of beginning to discover his potential and thereby developing a viable self-image. Many other children whose parents are given the dismal prognosis that their newly-born will probably never walk, never talk, are deprived of the learning opportunities which William enjoyed – including having a Feldenkrais practitioner as "a *friend"*.

2) No Fixed Agenda – Nothing to be Achieved - or Creating a path while walking

That was a difficult issue for both William and myself, especially during the first months. The CP symptoms – among them imperfect vision and spatial awareness, "Dyslexia", colour-blindness, a slightly spastic left side and (what disturbed the little boy most) a "useless" left hand were not as seriously incapacitating as initially feared. However, the bright little boy's frustration at not being able to do everything exactly like other children was very painful at times. I really wanted to *do* something, to get my "Feldenkrais hands" to "help" William gain greater satisfaction by becoming more skilled. But faced with the child's colossal suspicion of all supposedly helpful "therapists" I had to restrain myself...

Initially therefore I had no choice but keep reminding myself of Moshe Feldenkrais's dictum:

"The only principle is that there is no principle*"* and follow the child's flights of somewhat compensatory fancy. This certainly helped to boost

William's self-image which occasionally received a battering in the school playground because children can be cruel to each other. So the little boy became my teacher and I learned how to play - William's games of course - accompanying and assisting him on impossible missions, killing invincible giants, attacking evil planets, rescuing children caught in burning houses etc. All the while, however, I kept looking for ways of turning those imaginary battles into actual triumphs in the Feldenkrais sense by creating not too challenging learning situations demanding alertness to the impact of gravity, continuously shifting attention, and growing physical agility. For instance, several weeks in a row we climbed up a ladder into the attic room for our sessions; William's left arm extended beautifully as he held on to the hand rail on each side. A wobbly big African basket served as a boat requiring the arms to extend sideways so it would not keel over; a plank became a more or less steep slope or ladder for climbing into burning houses, a broomstick the pole in the fire-station serving the little fireman for sliding down to where his vehicle was waiting. In this way we both learned about the learning potential that may be released by lesson number three:

3) No idea – however "mad" is to be rejected

Just one example: One day William, by now seven years old, had the crazy idea of attempting a self-liberating Houdini trick while standing on his imaginary chariot - a board on rollers which I kept moving to and fro. The shackles consisted of loose elastic material, but he still had to struggle hard with them. I was extra alert in case the little boy should fall. It was impressive to observe how he twisted and turned to extricate his hands without losing balance while still holding the reins and whipping his horse (an oval physio-ball placed in front of the board). Once his hands were free William quite unexpectedly jumped – landing straight on the horse's back to my somewhat shocked relief and delight. And then he exclaimed: "I really surprised myself!", adding after a little reflection;" I *thought* I couldn't do it, but I *knew* I wouldn't fall off!" These words reflected an amazing mental-emotional-physical achievement. While William was intent on a coherent response to the complex multi-sensory stimuli to which he was being subjected, the thought of failure was not able to disrupt what Bohm sees as the primary function of (tacit) thought: to serve as a relative guide for action.

William had come a long way since the time when his relationship to movement and space was so insecure that he did not dare go down the stairs at home for fear of falling. He had proved once again that as long as there is learning "our self-image is never static. It changes from action to action."[14]

Since the time when being touched was no longer threatening for William, both of us had learned a great deal about trusting the creative process of dialoguing. Gradually our FI sessions had become much more quietly contemplative affairs as we engaged in the characteristic *subliminal – proprioceptive - kinaesthetic – communication,* or *dance* as Feldenkrais also used to describe the Functional Integration process. In the end William began to look forward to being touched and positively enjoyed listening intently inside for that infallible sense of new qualities of freedom, ease, and tacit knowledge of "what works" emerging in his simultaneously expanding movement repertoire and self-image.

On a very modest scale our FI encounters turned into a kind of illustration of what tends to happen in a Bohmian Dialogue group.

Once individual viewpoints within the group begin to be less compulsively defended as absolutely right, other people's opinions less vehemently rejected as stupid or wrong, all assumptions and ideas within the group may ultimately be perceived as aspects of a common structure of *shared meaning.* As a consequence a *shared purpose* may emerge, and awareness will grow of unexpected resources of *tacit knowledge* available within the group. At that stage the microcosm of the dialogue group may become a seeding ground for transformation on a larger social scale.

Anybody who has explored Dialogue will have experienced the excitement when this tacit knowledge and shared meaning suddenly become explicitly real. This happens for instance when one person expresses an idea and another exclaims with utter amazement: "I was just going to say the same thing!" As such surprises become more frequent, everybody in the group will find it increasingly easy to see their personal thoughts and convictions as just a small part of a vast common fund of tacit shared meaning.

As the dialogue group begins *communicating at the tacit level*, thought starts to liberate itself from the grip of futile assumptions, habit, and compulsion. A more archaic form of perception – still latent in the structure of our consciousness – is then reactivated: *participatory*

thought. This kind of thinking is very different from the much more limited literal thought with its practical orientation towards results. It is deeply transformative since "We create a world according to our mode of participation, and we create ourselves accordingly." For participatory thought boundaries are permeable; participatory thought can *feel* underlying relationships and *sense* that the movement of the perceptible world is participating in some *vital essence.*

Former Bohm student Anthony Blake, who is continuing to expand and refine the Dialogue model, talks about getting in touch with "the underlying structure of meaning that concerns our freedom...the unknowable in our midst...what makes us human. Awareness and physical reality are fused into one." [15]

Now we come to the most challenging aspect of Dialogue in what Bohm calls *suspension.*

The Principle of Suspension and Self-Perception – or Proprioception of Thought

Bohm was adamant about one point: In order to observe what is *really* going on in so-called thinking and communicating, personal assumptions, value judgements, and opinions have to be suspended. Bohm never tired of stressing that there is a great deal of violence in the opinions we keep defending. In our 'information age' with its conventional mode of conversing there is another commonly held assumption that has to be neutralized: "We are assuming that what is happening is that we are transferring information from ourself into the other. It is not too extreme to call this an act of violence." [16] Moshe Feldenkrais approached the same issue from another angle when he said that we need to get rid of "all that junk put into us" with the best of intentions. [17]

Habitual emotional reactions, such as anger and hostility, also have to be suspended in the dialogue situation. Negative emotions tend to flare up whenever one's identity seems under attack. This happens when cherished values and ideas about reality – which we misapprehend as our 'identity' - are questioned, usually when another person expresses a diametrically opposed view.

But suspension does not mean suppression:

> "...You could say, 'I shouldn't be angry. I'm not angry, really'. That would be suppressing awareness. You would still be violent. What is called for is not suppressing the awareness of anger, not suppressing or carrying out its manifestation, but rather suspending them in the middle at sort of an unstable point – as on a knife's edge – so that you can look at the whole process. That is what is called for." [18]

As long as the person practising dialogue is unwilling to yield and insists that there is only one possible or *correct* way and "It's got to be *that* way!" (Feldenkrais called that *compulsion*, Bohm spoke of the *impulse of necessity)***,** communication and creativity will remain blocked. Once the same person begins to see what is actually happening and starts wondering: "Maybe it's not absolutely necessary after all...", conflict will diminish; exploration of new notions of what is *really*, *creatively* necessary can truly begin. Ultimately the *creative perception of new orders of necessity* [19], so familiar to poets, artists, composers, pioneering scientists – and all those who come to really understand the Feldenkrais Method - may supplant the childishly egocentric *impulse of necessity* that is responsible for much of our incoherent and dysfunctional thinking, feeling, and acting.

When people in a Dialogue group begin to open up to the perception of new *orders of necessity* they will notice more and more frequently that any misconception of one's spoken intent can actually lead to a new meaning being created on the spot – in the moment. They may even experience a revelation: "In the *creative perception of disharmony* in the process of thought there may come about the *deepest harmony* that is open to man: an awed sense of the unknown indefinable totality from which all perception originates – the source of Intelligence". [20]

At that stage in the Dialogue process conscious suspension of rigidly held opinions and automatically triggered habitual emotions becomes possible, and eventually easy. With thought becoming proprioceptive, i.e. aware of its movement and consequences, a shared insight may arise "that we are all in the same position – everybody has assumptions, everybody is sticking to his assumptions, everybody is disturbed neurochemically." [21] A constantly self-perpetuating process will be revealed: *thought* triggers certain *emotions*; those emotions give rise to specific bodily *feelings* and *sensations*; these in turn validate and reinforce the initial thought, thus sparking off another emotional upsurge, and so on and on "without passing through 'me'" [22] With attentive observation, the cherished *me*, which most of us cling to as the central entity welding thought, feeling, sensation, and action together into unity, *doing* and *experiencing* everything, will ultimately

prove to be little more than a figment of the imagination.

Moshe Feldenkrais was equally convinced that holding on to the notion of an all-important 'I' or 'me' is infantile and ultimately dysfunctional:

> "Unless a stage is reached at which self-regard ceases to be the main motivating force, any improvement achieved will never be sufficient to satisfy the individual. In fact, as a man grows and improves, his entire existence centres increasingly on *what* he does and how, while *who* does it becomes of ever decreasing importance." [23]

The way Bohm dethrones the *me* (Feldenkrais's *who*), and instead installs the body as the natural centre of activity, is particularly interesting in this context. In a way, due to "some self-reference built into the whole system", i.e." *proprioception* or *self-perception***",** the body could be regarded as a kind of self whose inborn sense of coherence and tacit knowledge of order and harmony are constantly being tested in movement and action, and continuously refined through direct experience. Without *this* form of self-reference, no child would learn to walk or ride a bike; nobody would be able to realise an intention. In a process of perpetual approximation of coherence, harmony, or a sense of aesthetic satisfaction accompanied by simultaneous self-correction, the "negative" *sense of incoherence* plays a "positive" and very important role: As *creative perception of disharmony* it can serve as the surest *road to coherence.* [24]

In Feldenkrais terms, that is natural, organic learning where "the difficult gradually becomes feasible, easy, comfortable, elegant, and aesthetically acceptable" [25] , and giving yourself permission to make mistakes is very much part of such a process.

The notion that there is only *one* way (Bohm's *impulse of necessity*) can occasionally be quite an issue in Feldenkrais work with grown-ups. Clients may for instance insist that "*it* doesn't work", that "*it* hurts" (their back, neck, or hip joint), preventing *them* from moving with ease. Unconsciously they may attempt to remain in such a state of alienation, especially if they can produce proof of deterioration or injury in the form of a medical report or x-ray.

Thanks to William's intense curiosity, active imagination, and still malleable self-image, the *impulse of necessity* problem did not even arise in his Functional Integration sessions. Although there was, as already mentioned, a compensatory element in the little hero's imaginary battles and victories, his creative capacity also blossomed in connection with the tangibly physical challenges in our games ranging from Cowboys and Indians to spaceship landings, as well as in the increasingly more frequent and more extended moments when we were communicating non-verbally as is the rule when the learner is an adult.

What was particularly interesting for me was that William was at an age when the struggle between "*omnipotence and insignificance"*, which Moshe Feldenkrais talked about in his Berkeley lectures, is still noticeably occupying the nervous system. Feldenkrais explained on that occasion that we need to adjust our *inner absolute importance (or omnipotence) to our insignificance* while we are growing up. This task causes much of the drama, many of the difficulties of existence, if the struggle has not been resolved by adulthood, because in that case a person's nervous system is not free to learn useful knowledge.

Conclusion

Both approaches compared in this article can make a valuable contribution by highlighting and suspending (or neutralizing) the hidden violence we all carry within ourselves. Moshe Feldenkrais never tired of drawing his students' attention to the fact that forcing oneself to *achieve or surpass oneself* while seeking to realize an intention is the cause of most *destructive functioning.* He saw such functioning as a neurotic and asocial phenomenon ultimately doomed to failure: "A person who gets himself a neurotic goal and uses neurotic means usually fails and often ends in self-destruction". [26] *Constructive functioning* requires suspension of ambition and useless, self-defeating effort. That is an absolute prerequisite for harmoniously adjusting aspects of *omnipotence* and *insignificance*, making peace with these two poles within our own mind. Fixed goals in general are also better suspended since "In knowing what to achieve before we have learned to learn, we can reach only the limit of our ignorance." [27]

However, Feldenkrais was not totally against will and effort. He believed they had their rightful place: "Will-effort should be trained on higher human functions and not on how much pain you can stand or how much fatigue you can stand." [28]

In action and word Moshe Feldenkrais was a model of what he meant by that and indirectly

proved himself to be an accomplished natural "dialoguer" – despite the occasional human frailties such as "ego-tripping". To give just one example: while explaining the essence of FI practice in June 1981, Feldenkrais corrects himself in mid-sentence – suspending the still dominant assumption about teaching (transfer of information) and reformulating his thought in *participatory* fashion:

"You can transfer a kind of **...** induce the other person to *participate* with you into something, provided it must have a melody. It must have something which links the two different individuals into one sort of thing where the sensory phenomenon is common to both." [29]

A little later Feldenkrais adds that such subtle connection - dancing and participating with your whole being - results in a feeling of "extreme happiness, of extreme comfort with a person that you may not like at all...And yet, [you] feel that community which is stronger than your decision [not to have anything to do with them]... It's stronger than anything else because it's at the foundation of life in any animal, not only in humans, but animals have it in a simpler way than we have it." [30]

This is just one example of dialogue as practised by a "teacher" intent on assisting others to become more aware of entirely new possibilities of living in harmony with themselves and with others. It was only towards the end of his life that Feldenkrais found such inspiring words. In most of his teaching all this remained tacitly implicit or was occasionally hinted at. However, even in the late fifties, when David Bohm was teaching in Israel, parallels between Bohm and Feldenkrais were picked up - for instance by one of David Bohm's later collaborators, a man who excelled in physics, music, and art, and also studied with Moshe Feldenkrais. "[Gideon] Carmi explained to Bohm that he believed in a deep connection between physics, consciousness, and these subtle, minimal movements." [31]

As pioneers in expansion and transformation of human consciousness both Moshe Feldenkrais and David Bohm were way ahead of their time. It is now up to us to allow the seeds of their legacy to take root – maybe by occasionally exploring the two approaches in conjunction. Then we may begin to implement what W. H. Auden, St. Exupéry, and Moshe Feldenkrais had to say about the equation *intense attention = love* because, unlike thought, attention is potentially unrestricted:

"There may be a limited kind of attention, such as concentration, as well as an unlimited kind – the fundamental kind. Through such attention, we could move into more and more levels of the implicate order – the more general levels of the whole process. At these general levels, consciousness in one person differs very little from consciousness in another."[32]

Moshe Feldenkrais often referred to such fundamental attention as the most important aspect of learning and self-education: "Do not concentrate – rather attend well to the entire situation, your body and your surroundings, by scanning the whole sufficiently to become aware of any change or difference, concentrating just enough to perceive this." [33]

With this kind of attention we may begin to comprehend that what appears surprising and extraordinary in Feldenkrais lessons and the *subliminal communication* about possibilities of coherent *constructive functioning*, which constitutes their essence, is actually the most natural thing in a world where all embodied Life, everything in existence, is in an ultimately creative and meaningful relationship of mutual participation. Perhaps at the troubled beginning of this century a start is now being made on realization of this – individually and globally; and maybe Moshe Feldenkrais was not too optimistic when he wrote: "I believe that we are living in a historically brief transition period that heralds the emergence of the truly human man." [34]

Notes

1. David Bohm, *On Creativity*, p. 106
2. F. David Peat, *Infinite Potential*, p. 180
3. David Bohm, *On Dialogue*, p. 81
4. Transcript of the Amherst Training Program, 9 June, 81, p.17
5. *The Forebrain: Sleep, Consciousness, Awareness & Learning*, An Interview with Moshe Feldenkrais by Edward Rosenfeld, INTERFACE JOURNAL Vol. 1, No. 3-4,1973, pp. 47ff
6. Transcript of the Amherst Training, 8 June 81, p. 2
7 *On Dialogue*, p. 75
8 *On Creativity*, p. 115
9 *On Dialogue*, p. 25
10 Transcript of the Amherst Training, 8 June 81, p. 2
11 " " " " " " , p.6
12 The Essential Bohm, p.294f
13 *On Dialogue*, p.35
14 Moshe Feldenkrais, *Awareness Through Movement*, p.11
15 Anthony Blake, *The Working Group, p. 20*
16 Anthony Blake, *Trialogue,* p.1
17 Berkeley Lectures 1973 (Cassette No. 40?)
18 On Dialogue, p. 76
19 " ..... " , p. 23

20 Sorry, this quote has not yet been located
21 *Essential Bohm*, p.325
22 *On Dialogue*, p.74
23 *Awareness Through Movement, p.19*
24 *On Dialogue*, p. 78
25 Amherst, 8 June 81, p. 12
26 Berkeley Lectures
27 Moshe Feldenkrais, *Learning to Learn*, p.13
28 Berkekley Lectures
29 Amherst, 8 June 81, p.10
30 ibd.
31 *Infinite Potential*, p. 170
32 *On Dialogue*, p. 93
33 Moshe Feldenkrais, *Learning to Learn*, p. 13
37. *Awareness Through Movement*, p.48

References

David Bohm, *Thought as a System*, 1994
On Dialogue, 1996
On Creativity, 1998
Wholeness and the Implicate Order, 1995
with David Peat, *Science, Order, and Creativity*, 2000
edited by Lee Nichol, *The Essential Bohm*, 2003
David Peat, *Infinite Potential. The Life and Times of David Bohm*, 1997
Anthony Blake, *Structures of Meaning* (includes *The Working Group* and *Trialogue*), 2003
Moshe Feldenkrais, *Body and Mature Behaviour – A Study of Anxiety, Sex, Gravitation & Learning*, 1949
Awareness Through Movement, Health Exercises for Personal Growth, 1972
Body Awareness as Healing Therapy, The Case of Nora, 1977
The Elusive Obvious, 1981
The Potent Self; A Guide to Spontaneity, 1985
Transcript of The Feldenkrais Professional Training Program, Amherst, Massachusetts, Week 1&2,1981

WEBSITES: www.duversity.org (Anthony Blake)
www.fdavidpeat.com (David Bohm)
www.feldenkrais-resources.com (Moshe Feldenkrais)

Brief Summary of Feldenkrais Approach: The effectiveness of the *Feldenkrais Method* lies in its ability to access the nervous system's own innate processes to change and refine functioning Through personal experience we adopt patterns of physical and psychological behavior to assure our biological and social survival. These patterns are deeply embedded in our nervous system and often become outmoded or dysfunctional. The *Feldenkrais Method* utilizes functionally based variation, innovation and differentiation in sensory motor activity to free us from habitual patterns and allow for new patterns of thinking, moving and feeling to emerge. Movement is utilized to explore the biological as well as the cultural aspects of attention, intention and cognition and to delve deeply into how human development, learning and movement interrelate. (Extracted from www.feldenkrais-resources.com)

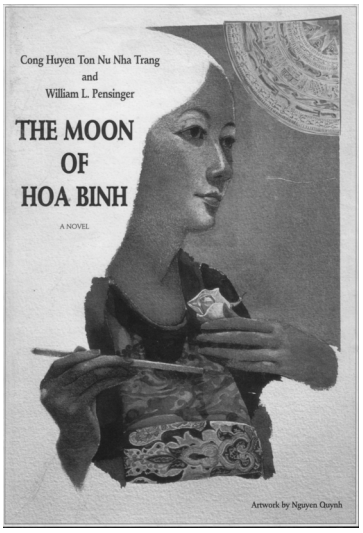
Bohm on Dialogue: Communication has been ailing in the human race for a long time and Dialogue is concerned with that. But the primary purpose of Dialogue is not to communicate. It is much deeper. It addresses the blocks in communication, not merely to understand them, but to meet them directly. It is aimed at seeing resistances to communication. In Dialogue we are ready to raise topics serious enough to cause trouble. But while we are talking we are interested in being aware of what's going on inside us and between us. . . What begins to transform culture into something quite different is that ultimately the frustration or anger or rage or hatred that arises can lead to a crisis in which these feelings are transformed giving rise to impersonal fellowship - to thinking together and participating as if we were one body - by establishing a common consciousness. The group then becomes a kind of instrument of consciousness which can function differently. (David Bohm on Meaning, Purpose and Exploration in Dialogue)

Checklist of concepts

proprioception related to self-perception and self-organisation
implicate or enfolded order
1st implicate order - *tacit infrastructure*
2nd implicate order - *generative order*
participatory thought - a more archaic form of perception – still latent in the structure of our consciousness
dialogue and
communicating at the tacit level
"*potent" self-image* - see *proprioception*
omnipotence and insignificance – the dyad we feel about ourselves
destructive and constructive functioning
impulse of necessity
creative perception of new orders of necessity
creative perception of disharmony can serve as the surest *road to coherence*

For the Mirror is not the Glass
(c) by William L. Pensinger

William Pensinger with his wife Nha Trang was the author of a unique novel *The Moon of Hoa Binh*. One day it might be considered alongside Proust's *Remembrance of Things Past* or James Joyce's *Finnegan's Wake.* It deals with the nature of consciousness and experience through the recent history of Vietnam via excursions into twentieth century art and science. After resettling in the USA from many years in South East Asia, he found his circumstances intolerable and, a few years ago, returned to Thailand. No one has heard of him since. The following article was sent us a little while before he left with permission to use as we will.



Hugo was a madman who believed he was Hugo. Cocteau

Setting a book on the bedstead late at night, I expect to find it there upon awakening next morning. Most normal people would agree this is a reasonable expectation -- under the assumption that no one moves it in the interim and there are no earthquakes. Inanimate objects stay in their places unless some outside force intervenes. In the morning, upon finding the book unmoved, I do not question its continued existence throughout the night; I do not believe that it ceased to exist the instant I shut my eyes to go to sleep and later reappeared the instant I opened my eyes and looked upon it. Such common sense notions about the behavior of everyday objects have been around for a long time, influencing not only Aristotle and Newton but even contemporary avant-garde quantum physicists. Indeed, these ideas about objects were succinctly formulated in a pivotal phrase in one of the most bizarre formulations about the nature of reality produced in recent times, the multi-worlds interpretation of quantum mechanics: "since physical objects always appear to us to have definite positions." (Everett, 1957.) The physicist, Hugh Everett, III, used these words as a major transition in his argument about why quantum physics is so complicated. If it were not the case that my book always has a definite position, then I could have direct awareness of all of its other versions existing in the infinite number of multi-worlds besides the one I presently find myself in -- and, in consequence, the laws of physics would be much simpler, much more elegant, much more beautiful. But, alas, this is not the case: enormous rather ugly complexities are required by the fact that the book always has a definite position. Or so Everett believed.

Everett at Princeton was, apparently, unaware of the experimental work of another physicist not so far away at Columbia University. Seven years before Everett's paper appeared, an article by the optics physicist, Rudolf K. Luneburg, was published by the Optical Society of America containing another pivotal phrase: "there is no absolute localization even in binocular vision." (Luneburg, 1950.) What is this? These are exact opposite formulations! Is not absolute localization required for a definite position? If there is no absolute localization even in binocular vision, how can objects always appear to us to have definite positions? How could Luneburg say such a thing? Regardless of all the philosophizing, doesn't every sane person know that objects always are where they are at any given time? The years of experiments Luneburg conducted at the Knapp Memorial Laboratory of Physiological Optics demonstrated that, even when you and I are standing in the same room, we do not see the room using identical visual spaces. The geometrical properties of your visual space are subtly different from mine. Luneburg discovered that binocular visual space is not based on the Greek geometry we all learn about in high school, and which was the basis of linear perspective in painting. In visual space, he discovered, parallel lines are not parallel in the Greek geometry sense; there is a mathematical relation called a "metric" which determines how "skew" the parallel lines are in your visual space and there is another different metric determining how skew the parallel lines are in my visual space. The numbers defining your visual metric differ from mine because we have different psychologies. Luneburg called these metrics "psychometric distance functions" because they vary with "constant factors of the personality of the observer". So, when we get down to details, you and I can never see a given object as having the exact same definite position at any given time. Who is right? Which place is the object really at? It's amazing, being in the same room, we don't constantly run into each other! Luneburg also learned that binocular visual space has a limiting velocity, related to maximum angular velocity of eye movement, a limiting velocity like Einstein talked about. And he demonstrated that when the

eyes move faster and faster the objects they perceive get shorter and shorter. Approaching the limiting velocity, Einstein showed, time slows down more and more. So, how we choose to see has something to do with the time rate we experience. Is it your "any given time" or is it my "any given time" for the definite position of the object? Who is right? Whose time does the object abide by? We don't even live in the exact same time; it's amazing we even manage to meet each other! How is it that we do?

The famous French psychologist, Jean Piaget, spent his life studying how children learn. He demonstrated that my conviction that my book stays on my bedstead all night long while I am asleep -- that it does not go out of existence and come back into existence when I close and open my eyes -- is a conviction not shared with me by young children. The belief that the book remains always in existence as long as it exists is called "object constancy": while existing, the book exists constantly, it does not jump into and out of existence like a Christmas tree light going on and off. A belief in object constancy is something children learn as they develop mental sophistication and begin to acquire the capacity for connected thought; they are not born with such a belief. Object constancy is a learned behavior, a behavior learned in the process of growing up in a culture. How do children learn this conviction? What is the object like for them before they learn object constancy? Is it possible to unlearn object constancy? Why would anyone try to do a crazy thing like that?

Edmund Husserl's method of reductive phenomenology sheds considerable light on these questions. He made the observation that we can view any object we might choose from more than one position. Indeed, in moving 360 degrees around the object, we can theoretically view the object from an infinite number of different positions. Most utilitarian objects of everyday life are sufficiently complex in their physical properties as to present us with a different face for each position from which they can be viewed. In walking around the object, we are presented with a unique image of the object for each position from which we view it. How is it, then, that we come to recognize each of these unique images of presentation as pertaining to the same object when they are so different in appearance? How are all of these differing images put into a gestalt of superposition in such a way as to constitute a constant object -- a persisting object, that is, which has a definite position at any given time? This is what the child learns to do as he achieves object constancy. This is what Braque and Picasso depicted with their superimposed image of a given object simultaneously viewed from multiple perspectives: Analytical Cubism. The conclusion we find ourselves entertaining is that the identity of the object is a construct, a construct achieved through socialization.

Husserl studied in great detail how the gestalt of superposition of an object is constructed in awareness, and how that gestalt may be deconstructed, collapsed, or "reduced". What is the object like when it has been systematically reduced, when all learned behaviors are removed from the process of perception, when we have become again as young children no longer giving credence to object constancy? Proust clearly contemplated this issue, for he muses in REMEMBRANCE OF THINGS PAST that "perhaps the immobility of things that surround us is forced upon them by our conviction that they are themselves, and not something else." Is it possible that in its reduced state an object is not itself, that it is in fact something else, as Proust imagined? But, in some sense, I am an object of perception for you, and you an object of perception for me. Is it possible that in my reduced state, I am not myself, but in fact someone else? My God, I might be you! And maybe the object cannot be reduced without the subject simultaneously being reduced.

If the hard fixity of the physical object is built of tenuous vapors, what then of the soft soul substance constituting the psychological subject? The straightforward obvious thing to do would be to look at it, if one wishes to answer this question. Looking at the subject is simply self-observation, the most "un-sophistry" form of introspection. Scientific objection to this positivistic experimental apparatus is largely based upon the unsubstantiated assertion that it is impossible to be both subject and object of perception simultaneously, that the supposed self-observation is actually mere retroflexion, that the cognizer and the object cognized alternate and in so doing make the act of self-observation a mere gesture of the fallible memory. This scientific doctrine is testimony to the fact that thought about what something ought to be is far less reliable than engagement in the actual experiment itself. When the subject is made an object of observation, it takes on many of the properties of physical objects, and abides by many of the same laws. This making of a subjective thing into an objective thing is called "reification", and is

regarded by the academic community as a logical fallacy. The notion that reification is a fallacy is another unproved scientific assertion. The experimental activities of Edmund Jacobson, the medical doctor, student of William James, University of Chicago electrophysiology researcher and co-inventor of the electroencephalograph, and Hubert Benoit, the extremely accomplished Zen practitioner, are useful here: long-running experiments in self-observation have repeatedly supported one of the basic principles of quantum physics: under certain circumstances, the act of observation itself changes the object being observed. The easiest place to start in self-observation is with the senses. Observing the senses -- sight, sound, smell, touch, taste -- is autosensory observation. Sensing, and observing the senses sensing, are two different experiments. Sensing-and-only-sensing is an in-the-body experiment. Observing the senses sensing is an out-of-the-body experiment: in due course, one cannot escape proprioceptive awareness of "my body-ness". The "my" of "my body" implies something distinct from that body. Sustained, concentrated attention to the awareness of the sensory concomitants of this implication is a new experiment; one no longer engages in autosensory observation: the object of observation has been changed by the very act of observation, just as quantum physics describes. The new experiment one undertakes is autocognitive observation: engagement with the "my" of "my body", in due course, gives rise to proprioceptive awareness of the concomitants of "my self-ness". And the "my" of "my self" implies something distinct from that self. Deeper and deeper states of concentrated self-observation give rise to an infinite sequence of direct awarenesses of "my supraself-nesses" -- in just the same way that instrumental observation of the physical object in quantum physics gives rise to Hugh Everett's "multi-worlds". Well, almost. In quantum physics -- according to interpretations emerging from physics-department socialization processes -- localization of an object comes about by collapse of superposition, whereas actual practice of perception reveals that a constant object comes about by socialized learning of how to accomplish superposition. Does this paradox tell us something about the nature of the subject, or does it tell us something about socialization of the subject?

Most people stay away from experiments in self-awareness, because the specter of infinite regress in the selfhood -- the "my self-ness" imploding to [I, I, I. . .n] -- so immediately appears when attention is turned inward. As may have been expected, the scientific community regards infinite regress as a fallacy. Is this yet one more unsubstantiated mere scientific assertion? The psychologist, Ignacio Matte Blanco, in arriving at his notion of "the unconscious as infinite sets" seems to have concluded that this is the case. Not only is the subject capable of simultaneously being subject and object of perception, it is multiply capable of simultaneously being the subject of the subject of perception. Moreover, not only is length relative to motion in visual space, as Luneburg's experiments have demonstrated, but introspective retroflexion in self-observation is relative to the operative time rate: retroflexion becomes cognitive simulcast to the degree that the velocity of cognition of percepts -- the baud rate of consciousness, that it -- approaches its relativistic limit. This may be easily verified, as even cursory experiments in autosensory observation are accompanied by time dilation, i.e., elastic variation of what Husserl called "internal time consciousness". It is rather like pilot fixation syndrome due to cognitive overload: as the I's replicate toward infinite regress, velocity of cognition increases, causing time to dilate. The enduring selfsame identity -- our I-ness -- which we so easily take as given, clearly is more than a little mysterious. It takes young children a lot of practice, and often repeated threats and disciplining by parents, to get the idea that they are themselves and not somebody else. Indeed, it is far from rare to see a child march boldly toward adolescence "pretending" under several names to be multiple, while parents fret and assure the child that he well knows that "this little Johnny with the strange voice" is just an imaginary friend. The constant "I", no less than the constant object, is not something children are born with; it is something they are taught.' The conclusion we find ourselves entertaining is that the identity of the subject is a construct, a construct achieved through socialization.

A combat fighter pilot low-altitude accelerating beyond Mach-2 must process greater and greater quantities of information in less and less time. The brain accommodates this cognitive need -- up to a limit, the limiting baud rate of the state of consciousness maintained by the pilot. As cognitive load increases, the pilot's time-rate perception stalls: time passage slows way, way down. As time more and more slows down, objects in the visual field appear farther and farther away. A cusp catastrophe is in the making: fixation syndrome. Wham! The aircraft slams into a

mountainside the pilot saw as being quite far away. It is the same with fighter pilots of inner spheres. Little Johnny becomes Jonathan Livingston! Imploding at an accelerating rate into the infinite regress in the selfhood, greater and greater quantities of information must be processed in less and less time. Embracing more and more I's, the brain accommodates this cognitive need — up to a limit, the limiting baud rate of the state of consciousness maintained by the soaring inner seagull. As cognitive load increases, time-rate perception stalls: time passage slows way, way down. As time more and more slows down, objects in the visual field appear farther and farther away. A cusp catastrophe is in the making: Samadhi state. Wham! A great shattering.

> "There is a continuous perception, rendered by the vision, of a multicoloured light, consisting of all colours -- of all colours not in layers, but as if it were (gesture: dots everywhere) an association by dots of all colours. Two years ago...when I met with the Tantrics and got in touch with them, I started seeing this light and I thought it was a "Tantric light", the Tantric way of perceiving the material world. But now I see it constantly, in connection with everything, and it seems to be something

> that one might call "a perception of real Matter". All possible colours are mutually associated without being mixed, (same gesture) associated in luminous dots. Everything consists of it. And it seems to be the true way of being. I am not sure yet, but it is anyway a much more conscious manner of being." (The Mother speaking to Satprem in 1967, quoted in Satprem, 1983, p. 110.)

A bucket of dust, a Borel set of dimensionless

points, one of Yayoi Kusama's tactile environments filled with soft sculptures covered with polka dots: thus is consciousness. The Bride, Stripped Bare by Her Bachelors, Even. What happens to consciousness when a Readymade is removed from its enculturated context? When behaviors learned in childhood in order to construct a world of Readymade constant objects are suddenly superseded? The Large Glass for the first time truly becomes transparent; it no longer can be a mirror reflecting learned behaviors between the poles of enduring subject and constant object. Both poles shatter. There is no-object, for there is no-self; there is no-self, for there is no-object. Consciousness-without-an-object. Consciousness-without-a-subject. And yet, consciousness-there is. Non-doing is not doing nothing, and no-mind is not no knowing mind.

Illustrations from 'Alice Through the Looking Glass' by Lewis Carroll (added by editor)

References and Suggested Reading:

Benoit, Hubert. LET GO: THEORY AND PRACTICE OF DETACHMENT ACCORDING TO ZEN. N.Y.: Samuel Wiser, 1977.
Blanco, Ignacio Matte. THE UNCONSCIOUS AS INFINITE SETS. London: Duckworth, 1974.
Blank, Albert A. "The Luneburg Theory of Binocular Visual Space," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, 43:9, September 1953.
Everett, Hugh, III. "Relative State Formulation of Quantum Mechanics," REVIEWS OF MODERN PHYSICS, 29:3, July 1957. (As the notes printed with this article clearly indicate, enormous pressure was brought to bear on young Everett to get him to straighten up, fly right, and bring his creative mind into conformity with that of the man in Copenhagen. Dr. Everett left Princeton and disappeared into the Weapons Systems Evaluation Group, the Pentagon. He was an Army brat, and the Everett family obituaries printed in the Washington Post make exceptionally interesting reading to someone from a similar background -- and who lived half a mile away.)
Jacobson, Edmund. "On Meaning and Understanding," AMERICAN JOURNAL OF PSYCHOLOGY, XXII, pp. 553-577, 1911. (Describes in detail the methods of autosensory observation taught to experimental subjects in Dr. Jacobson's laboratory, some of which later became the basis for his "progressive relaxation" technique.)
Jacobson, Edmund. BIOLOGY OF EMOTIONS. Springfield: C. C. Thomas, 1967, (Describes 60 years of experimental research conducted by Dr. Jacobson leading him to the conclusion that "there are no closed circuits in the brain" and that "brain activity does not prevail over peripheral activity in the intact organism.")
Luneburg, Rudolf K. "The Metric of Binocular Visual Space," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, 40:10, October 1950. (This paper was published posthumously by Dr. Luneburg's colleagues. Apparently, there were some mighty strange occurrences associated with his death.)
Piaget, Jean. "Principle Factors Determining Intellectual Evolution from Childhood to Adult Life," in David Rapaport, editor, ORGANIZATION AND PATHOLOGY OF THOUGHT. N.Y.: Columbia University, 1951.
Satprem. MOTHER: THE NEW SPECIES. Paris: Institut De Recherches Evolutives, 1983.

Koans and Creativity

Albert Low

Albert Low is currently director of the Montreal Zen Centre. He was a business executive until 1976, before he devoted himself full time to the practice of Zen Buddhism. He is the author of a number of books on Zen including the highly original book on management and organization, *Zen and Creative Management*, which was inspired by a fusion of ideas from Elliott Jacques and John Bennett. These books have been translated into French, and some have been translated into Spanish, Portuguese and German.

He began his studies under Roshi Philip Kapleau in 1966 and completed his training in 1986. His thinking about management centered on the significance of dilemmas – contradictions not allowing for compromise – and he has since pondered deeply on the significance of ambiguity. His most recent book *Creating Consciousness* was published by The White Cloud Press in which he has explored more fully the role of ambiguity in the evolution of consciousness and culture.

We published his article *The Logic of Ambiguity* in a previous DuVersity Newsletter (No. 2, 1999) .

Zen is often considered to be exotic, irrational, slightly crazy and certainly often irreverent. The buddhologist, Edward Conze, said that Zen is Buddhism with jokes. Yet it is said to be a religion. In the West we tend to associate religion with the serious aspects of life. There is no account in the New Testament of Jesus having laughed, although it does tell of his weeping. The central symbol of Christianity, the man on the cross, does not encourage levity.

Possibly where the irreverence and irrationality of Zen seems to be most evident is in the koans. Altogether there are some 1700 koans. It is these koans, more than any other aspect of Zen, that most Westerners find difficult, if not downright impossible, to accept as a manifestation of the spiritual life They are generally looked upon as quaint, outrageous sometimes, but of marginal interest. They are often seen as another example of

the fact that West is west and East is east, and, though we may encounter, we cannot embrace. If Zen is to find a home in the West, an understanding of what koans are about, and how they can be related to other the religious life in the West, must be demonstrated.

What is a koan?

"You know the sound of two hands clapping, what is the sound of one hand clapping?" This koan is so well known that it is now part of our culture. So is the koan made popular by Gregory Bateson in his writings on schizophrenia: "If you call this a stick I'll give you thirty blows; if you say it is not a stick I'll give you thirty blows, what is it?" On another occasion a monk asked Zen master Joshu, "What is Buddha." Joshu replied, "The oak tree in the garden." Another monk asked the Buddha, "Please do not give me words and do not remain silent. Now, what is the truth?" These and forty-four other koans make up a famous collection of koans called the *Mumonkan*, which was compiled in the 10th century by Zen master Mumon. At least six different English commentaries on this *c*ollection are now available. Four of these, including my own, are by Westerners. But for all that, koans remain something of a mystery to most people who have encountered them.

Philip Kapleau (1) has said, "The aim of every koan is to liberate the mind from the snare of language, which fits over experience like a straitjacket." On another occasion he says, "The complete solution of every koan involves the movement of the mind from a state of Ignorance (delusion) to the vibrant inner awareness of living Truth. This implies the emergence into the field of consciousness of the immaculate Bodhi-mind, which is the reverse of the mind of delusion." Later he says, "Koans are so phrased that they deliberately throw sand in our eyes to force us to open our Minds eye and see the world and everything in it without distortion." He also likened them to hurdles that we have to leap on the way to satori. Yasutani on occasions said that they are like the colored leaves one gives to children to distract them and lure them along. Robert Aitken (2) said that koans are "the clearest possible expression of perennial facts which students grasp with focussed meditation and guidance. " Maezumi (3) said that a koan is "a touchstone of reality." He also said that they record an instance in which a key issue of practice and realization is presented and examined by experience rather than by discursive or linear logic. For Cleary (4) they "encode the total Buddhist project in an extremely concise and elegant fashion." Yoel Hoffman, (5) going to the Chinese masters for his inspiration, said that they are designed to break down ordinary rationality. A. V. Grimstone (6) in his introduction to Sekida's *Two Zen Cla*ssics gives a longer and a more generally understood answer to what is a koan. He says, "A koan is a problem or subject for study, often, at first sight of a totally intractable, insoluble kind, to which the student has to find an answer…. The answer which is accepted by the student's teacher may be as seemingly irrational as the koan itself."

Several constants emerge from these definitions, despite the contradictions: that the koans are a challenge, if not an affront, to our normal logic and reason; that they are training exercises of some kind; and that they contain information of some kind about a realized or awakened state. However, it may well be objected that these definitions do not quite touch the essence of a koan. I do not mean that they are wrong in what they say, but that they do not go far enough. They seem to be saying something of the same order as that the Shakespeare's plays are about people in difficult situations. What is a koan? Why do people spend years working on a single one? What connection if any do they have we our day to day life?

What is awakening?

One last problem that is closely allied to the question about koans is the meaning of *kensho*, or *satori*, or, in Sanskrit, *paravritti*. Kensho and satori are roughly synonymous, and are often translated as 'awakening' or 'enlightenment' and, sometimes, as 'the great liberation.' At times, the word kensho is reserved for the first glimpse of awakening and satori is reserved for a deeper, more mature awakening. But, anyhow, the question, "What is awakening?" remains. Are awakened people like saints, have they paranormal abilities, are they wiser than the average?

Many Eastern practicers of Buddhism have also had difficulty understanding the meaning of awakening. This is obvious from the many quarrels that have continued through the centuries between the so-called *Hinayana* and the *Mahayana*, as well as the antipathy that exists in Zen itself between the *Soto* and the *Rinzai* traditions. In Hinayana tradition the goal of the spiritual journey is deep samadhi leading to stepping off the wheel of birth and death. In the Mahayana the goal is to awaken within the wheel of birth and death. On the other

hand, in Zen, many Soto masters flatly state that kensho has no value; others agree with the desirability of kensho, but disagree with the Rinzai methods of attaining it

Zen and C. G. Jung

These two problems: what are koans and what is awakening, are related, and together seem to show that Zen is too confusing and obscure for Westerners. Because of this confusion, some say that Zen is not for the West. Generally, the Japanese Zen teachers are of this opinion. Some of these tend to look upon Westerners practicing Zen much as we look upon a dog walking on its hind legs. It does not do it particularly well, but it is amazing that it does it at all.

C. G. Jung was the most famous Westerner who felt that Zen was not for the West. In his introduction (7) to Suzuki's *Introduction to Zen Buddhism* for example he said, "Satori designates a special kind and way of enlightenment, which is practically impossible for the European to appreciate." "Could any of us boast," he asks, "that he believes in the possibility of a boundlessly paradoxical transformation experience, to the extent, moreover of sacrificing many years of his life to the wearisome pursuit of such a goal? And, finally, who would dare to take upon himself the authority for such an unorthodox transformation experience -- except a man who was little to be trusted, one who, maybe for pathological reasons, has too much to say for himself." (8) Troubled by the obscurity of Zen he cites a Zen mondo (question and answer.) A monk asked Zen master Gensha for the entrance to Zen, "Do you hear the murmur of the brook?" asked Gensha. "Yes," replied the monk. "That is the entrance." It is difficult to understand why Jung felt that this encounter was so obscure, when indeed, nothing could be clearer. But, he says, "it is better to allow oneself to become deeply imbued at the outset with the exotic obscurity of the Zen anecdote." "The Zen koans," he says (9) "not only border on the grotesque, but are right there in the middle of it, and sound like crashing nonsense." All of this does not deter him from explaining both satori and koans. His explanation does not concern us here, but we must note that he affirmed, (10)"The only movement inside our civilization which has, or should have, some understanding of the [strivings for satori] is psychotherapy." He says, (11) "For these and many reasons a direct transplantation of Zen to our Western condition is neither commendable nor even possible."

With such a verdict from such an esteemed authority it would seem the last word has been spoken. If we accept this, then Zen is just another of those fads that we engage in every now and then like occultism and spiritualism, hoola hoops and frisbees, and it will soon pass away. However my feeling is that to accept this verdict without appeal would be a tragedy. Although Zen is by no means the only spiritual path, there is enough vitality in Korean, Japanese and Western Zen to make it yet a transforming influence in the West, a transforming influence furthermore that the West thirsts after. If we can find truly what meaning Zen has for the West, if we can see that Zen is not something that is being added to the West, but which instead can make sense of what the West has truly offered in the past five hundred years, then a revitalization might be possible.

Zen and Creativity

I should like to offer reasons for saying that Zen has a value I would like to suggest that Zen is to Japan, China and Korea what creativity is to the West. To put this slightly differently, *Zen and Western creativity grow from the same root, and this root is most clearly revealed in the koan practice of the Rinzai tradition*. The great masters of the East such as, Hui Neng, Hyakujo, Huang Po, Joshu, Nansen, Ummon, Ta Hui, Dogen, Hakuin, Chinul and all the rest, are matched in the west by Newton, Galileo, Descartes, Bach, Mozart, Beethoven, Leonardo da Vinci, Michaelangelo, Hegel, Kant, Einstein. I am not, obviously, comparing the results of these two classes of men, the awakening of the former and the creations and discoveries of the latter. What is more relevant is that both the Zen masters and the great Western thinkers tapped into the same spiritual/creative source, both shared the same spiritual/creative root. What spirituality was for the East, creativity was for the West. Furthermore, just as Zen was not the province of the masters only, but was also the well from which countless monks and nuns drew sustenance, so it is not only the great thinkers and artists who tapped into this source, but all the thinkers, all artists. Indeed, Zen master Nansen said, "Every day mind is the Way," and in saying that he said that we all, all the time, tap into this creative source.

Elsewhere I have said that the human being should not be called a rational animal, but a religious being. To be religious is to seek unity. In this way science, as well as Christianity and Buddhism, could be seen as a religion. All seek unity: science through truth, Christianity through

love and Zen through wisdom. The conflict has not been between science and religion, but between two different religions. Science too has its dogmas and rituals, its credos and its myths. The One, however can only be sought creatively; or, to be more precise, creativity is the expression of the One in duality. Classical logic is the polar opposite of the creative source (12). It is necessary, but on its own it is incomplete and, if insisted upon, will be an obstacle both to a creative and a religious life.

What is Creativity?

Creativity has as many definitions as there are writers on the subject. However I shall use two quotations that have a particular relevance to what we are talking about. The first is Arthur Koestler's, the second T. S. Eliot's.

In his book The *Act of Creation,* Koestler (13) says that creativity arises when a single situation or idea is perceived in "two self consistent but habitually incompatible frames of reference." Creativity therefore involves a twoness (the "two self consistent frames of reference") and oneness (the single situation or idea). This definition is strikingly similar to a definition of humor made by James Beatty, an English poet of the eighteenth century. He said that laughter arose "from the view of two or more inconsistent, unsuitable, or incongruous parts or circumstances, considered as united in one complex object or assemblage." The close tie that laughter has with creativity is underlined by the fact that, according to one hermetic source, the world was created by laughter.

Metaphor, with its family of analogy and simile, as well as fable and parable, has always been both source and means of creativity. A metaphor says that A = B all the while knowing that A does not equal B. Shakespeare's "All the world's a stage" is an example. Shakespeare says that the world is a stage but we know that it is not a stage, or is it? 'It is a stage' and 'it is not stage' are the two incompatible frames of reference of Koestler's definition. The role of metaphor in creativity and the development of scientific theory has been explored by many writers. For example Roger Jones, (14) a professor of physics, wrote a book: Physics as Metaphor. David Peat, a well known science writer and physicist and David Bohm (15) jointly wrote a book *Science, Order and Creativity* in which they showed the connection between metaphor and the development of science.

It is as well to recall at this stage the koan used by Gregory Bateson "If you call this a stick I'll give you thirty blows; if you say it is not a stick I'll give you thirty blows, what is it?" If you say the world is a stage I'll give you thirty blows; if you say that it is not a stage I'll give you thirty blows. What is it?

Eliot, (16) when speaking of creativity, quoted a German poet, Benn, who said that the creative impulse is like

> *A bodiless childful of life in the gloom*
> *Crying with frog voice,*
> *'what shall I be?'*

Eliot goes onto say, "He [the poet] does not know what he wants to say until he has said it. He is not concerned, at this stage with other people at all; only with finding the right words or, anyhow, the least wrong words. He is not concerned whether anybody else will ever understand them if he does." And then he goes on to say, "He is oppressed by a burden that he must bring to birth in order to obtain relief. Or, to change the figure of speech, he is haunted by a demon, a demon against which he feels powerless, because in its first manifestation it has no face, no name, nothing; and the words, the poem he makes, are a kind of form of exorcism of this demon."

Those who have worked upon a koan know the feeling of "of not knowing what we want to say until we have said it," and of being "oppressed by a burden that we must bring to birth in order to find relief." Hakuin says, that working on a koan comes to be like a rat in a bamboo tube. It cannot go forward or back but cannot stay where it is. The poetic description of Benn's, "A bodiless childful of life in the gloom" is just the feeling that one has with a koan when one is truly working on it. The masters call it the doubt sensation.; I would call it the agony sensation. A koan is the faceless demon.

The expression 'doubt sensation' for many people is too intellectual. To carry the burden of the demon requires all of one's resources, not just the intellectual. Zen master Mumon describes what is required thus: "Arouse your entire body with its three hundred and sixty bones and its eighty four thousand pores; summon up a great mass of doubt and pour it into this question day and night without ceasing. Question it day and night." This kind of dedication is required not only of the Zen practicer but also, as we have seen in the chapter on the Cloud of Unknowing and the chapter on Prayer, it is required of the Christian mystic also. The artist or scientist also must be similarly dedicated. Brewster Ghiselin (17) says the following about the concentration required to create. He is speaking of the artist at work. However, any one who has worked for a long time on a koan, or who has

struggled equally long time with a scientific problem, will have no difficulty recognizing what he means

The concentration of such a state may be so extreme that the worker may seem to himself or others to be in a trance or some similar hypnotic or somnambulistic state. But actually the state of the so-called trance, so often mentioned as characteristic of the creative process, or of stages in it, differs markedly from ordinary trance or hypnosis, in its collectedness, its autonomy, its extreme watchfulness. And it seems never to be directly induced. It appears rather to be generated indirectly, to subsist as the characteristic of a consciousness, a partly un-focussed, attention diverted from the too assertive contours of any particular scheme and dispersed upon an object without complete schematic representation. In short the creative discipline when successful may generate a trance-like state, but one does not throw oneself into a trance in order to create.

This state of concentration-contemplation is, however; only possible when one is held in the grip of the primordial double bind as defined by Koestler. The relevance of Koestler's definition is apparent with the koan that Bateson used to introduce his notion of the double bind: "If you call this a stick I'll give you thirty blows; if you say it is not a stick I'll give you thirty blows. What is it?" The two incongruous frames of reference: are, 'it is a stick,' 'it is not a stick.' But a single response must be made. The same incongruity is to be found in the koan of Zen master Joshu. A monk asked him. "Does a dog have the Buddha Nature?" Joshu replied, "Mu!" meaning "No!" Yet, as Hakuin reminds us, "From the beginning all beings are Buddha." In the No and Yes of these two replies lies the burden of our life. When working on a koan one must always find the incongruity, the twist, or double bind, because this alone is the entrance to the koan and leads us into the doubt sensation. When the doubt sensation has really gripped us then we feel the burden of Eliot's demon. In other words, koans are not designed to thwart the rational mind, or throw sand into the eyes, or to set up hurdles. They use the natural creative processes of the mind in order to awaken the mind.

Bateson coined the word "double bind" to refer to the situation of a person faced with two conflicting pieces of information: "I beat you because I love you." "I am doing this for your own good." "Mother loves you," all the while saying loudly with body language "Mother hates you." However, Bateson thought that we acquired the double bind through experience. (18) But, on the contrary, the double bind is built into our very being. The double binds that Bateson referred to draw their tormenting power from this basic double bind. It is because of this basic double bind, because we are always working within two self-consistent but habitually incompatible frames of reference, that our life is stressful and so calls for constant creativity.

Buddha, as we know, said that life is suffering. The word he used for suffering, as I pointed out in an earlier chapter, was "dukkha." Dukkha, as I said then, means twoness, duality. He also said that suffering arises through desire. The basic desire is the desire to *exist*, the desire to be someone, somewhere, for some reason. To be someone, means to be distinct, separate, unique. The desire to exist leads us to stand outside our true nature. When we exist, we are both separate and the whole, both two and one. This is the primordial double bind. It is on this cross that we hang in life. Our whole life is a double bind. Consciousness is our creation; it masks or buffers us against this primordial double bind, the original sin of the Catholics.

Our "consciousness," a tapestry woven in the woof of experience and the weft of language with the wool of feeling, is held in place by our "identity," by the creation of "I," the central focus of consciousness, and the dearest word in our language. The chief weapon that "I" has in the fight to maintain itself in existence is logic, the logic, which preceded Aristotle, but was codified by him. By this logic we separate 'me' from 'you,' 'friend' from 'foe,' 'me' from the 'world,' 'good' from 'bad' and so create a stable and predicable world. Uncertainty, anxiety, depression and anger all arise when the frog voice begins to croak, because the central focus cannot hold, and we are faced again with the gloom of the primordial double bind, lying upstream of the consciousness. Koans therefore are not impositions, they are the means by which the original double bind can find expression, by which it can be brought into consciousness and so used creatively.

Metaphor and creativity

In his book, *Zen in the Art of Archery*, Herrigel (19) pointed out that the first thing that a master archer teaches his student is how to draw the bow. As Herrigel pointed out, this takes a great deal of work and practice. Drawing the bow has its counterpart in koan practice when entering the double bind,

arousing the doubt sensation. Then the arrow must be released, but this release must come instantaneously without intention. "It" must let go, and the demon exorcised

So it is in creativity. First one must grasp some thing that does not fit, some uncontrolled variable. This might be the search for the right fit of paint on paper, or the right words in the right sequence, or the right thought in the right theory. Something must nag, torment. The bow must be drawn; a demon must come forth to be exorcised. Then one must enter that "nag" and work around and within it. Benn's childful of life must stir. The 'rightness' comes from out of the blue, suddenly, whole. Poincaré told of a new mathematical discovery that he made when, having entered an omnibus to go some place or other. "At the moment when I put my foot on the step the idea came to me, without anything in my former thoughts seeming to have paved the way for it." Goethe said (20) that, when he was getting ready to write *The Sorrows of Young Werther*, nothing would take shape. He said that an occasion was lacking in which all of the different elements could be embodied. "All of a sudden, I heard the news of [a friend's suicide], and immediately ...[my idea took shape] like water in a vessel, which on the freezing point, turns into ice at the slightest shock."

Jaques Maritain, (21) in his book *Creative Intuition in Art and Poetry* says that the germ of a poem tends from the very start to a kind of revelation "of inescapable intuition both of the Self of the poet and of some particular flash of reality in the God-made universe; a particular flash of reality bursting forth in its unforgettable individuality but infinite in its meanings and echoing capacity." And he quotes Blake:

> To see a World in a Grain of Sand
> And Heaven in a Wild Flower.

In jokes, too, one encounters the same creative structure: Two incompatibles and the sudden explosion of laughter. For example,

> A young man on vacation calls home and speaks to his brother, "How's Oscar the cat?"
> "The cat's dead, died this morning."
> "That's terrible. You know how attached I was to him. Couldn't you have broken the news more gently?"
> "How?"
> "You could've said that he's on the roof. Then the next time I called you could have said that you hadn't been able to get him down, and gradually like this you could've broken the news."
> "Okay, I see. Sorry."
> "Anyway, how's Mom? "
> "She's on the roof."

Genuine laughter brings release from tension, a feeling of well being and openness towards others and the world. Laughter is a kind of refreshment of the spirit. It arises from two contradictory statements but only one meaning is possible. The meaning always comes suddenly, but so does satori. Perhaps this is why the Buddhologist, Edward Conze said that Zen is Buddhism with jokes. One true mark of satori is that it does not last in time. If someone has an experience that lasts even a few moments, that is not satori. Satori is the emergence of unity, and unity cannot come by halves.

Satori has no content, it is not an experience. It is a different way of experiencing, up-stream of consciousness so that, in time, consciousness itself becomes transmuted. Because of awakening, the double bind becomes part of the creative process and no longer simply a cause of conflict. Hubert Benoit (22) the French surgeon and author of several books on Zen, says that after satori an *imaginative emotive spasm* gives way, which is a more concrete way of saying the same thing. In the Lankavatara sutra this moment is called *paravritti*, which could be translated as 'turnabout,' and the turnabout occurs in or perhaps to the double bind. Referring back to Herrigel's archery, with satori it could be said that the arrow is released.

I have suggested elsewhere that classical logic is a natural, not an induced or learned, condition of the mind. This logic insists that A is A (everything equals itself) and that "it is either A or is not A. " Classical logic is the natural way that consciousness preserves itself as an existing entity. I am I, you are you, it is it, A is A, but, because of this, experience is fragmented. Everything is opposed, separate, distinct from everything else, and the natural unity of mind is constantly under great stress because of an apparent threat of disintegration. However, this stress is preferred to the latent threat of the loss of the self in what seems to be a great sea of annihilation. In satori what had appeared to be a great sea of annihilation is seen to be the very creative source from which all arises, the unity from which all particulars are derived. It is no longer a sea of annihilation, but an ocean of fertility and abundance.

With paravritti the rational mind is not destroyed, ordinary rationality is not broken down. Nor is experience liberated from the straightjacket of language. Human experience has language as an essential ingredient. Instead, with satori the rational, logical ways of viewing the world are found to be just one, not the only, way to organize experience. The Zen saying, "On top of a hundred foot pole an iron cow gives birth to a calf," may not seem to be reasonable, but it is full of meaning to the one who can see into what it is saying. This means that an awakened person does not lose the ability to think logically, but he or she no longer uses logical thinking as a form of defense against the fear of an incipient "Nothing." Because this defense is no longer necessary, the fear of death becomes attenuated and no longer lurks as a presence in the ecology of the mind. Anxiety, despair and the general paranoia that seem to haunt so many people, no longer trouble the mind. Working with koans after satori is a way by which one gradually allows this new way of experiencing to permeate the mind.

The Difference between Zen and Creativity.

Jaques Maritain says, in the quotation we gave above, that the poetic intuition is "both of the Self of the poet and of some particular flash of reality in the God-made universe." The world and me, he is saying, is seen as a unity. Again we encounter the two which are One. In both creativity and satori, unity emerges where before opposition or randomness and confusion reigned. In creativity, unity emerges as a new pattern, a new order, a revealed harmony; in satori unity emerges without form. Beauty, which is also a criterion appealed to by scientists as well as artists, is the encounter with Unity. *Unity is active*, it is not simply an abstraction. There is a feeling of inevitability in the recognition of truth. The form, the artistic creation or the scientific discovery, is but a vehicle of truth. Satori, is simply the manifestation of Unity, a manifestation of truth without form. Satori is often depicted as an explosion, and is sometimes accompanied by laughter, or expressions of awe and amazement, "Wonder of wonders, all beings are Buddha!" was Buddha's own expression of awe and amazement. Instead of finding unity in an experience, as in art or science, with satori, one finds that experience is unity.

A satori poem also gives expression to this.

The moon is the old moon,
The flowers are not different,
Yet I've become the thingness
Of all the things I see. Bunan

Footnotes

(1) Kapleau Philip, ed, *The Three Pillars Of Zen*, New York 1966 Harper and Row, pp 64/65
(2) Aitken, Robert, *The Gateless Barrier* (North Point Press: San Francisco) 1990 p. xiii
(3) Maezumi Hakuyu Taisan, *The Hazy Moon of Enlightenment*.
(4) Cleary J.C., *Meditating with koans*, Asian Humanities Press, Berkeley, p.8
(4) Hoffman, Yoel, *The Sound of One Hand*, Basic Books: New York, 1975, p. 22
(6) Sekida, Katsuki, *Two Zen Classics*, Weatherhill: New York, 1977, p. 14
(7) C. G. Jung *Psychology and Religion*, Routledge and Kegan Paul: London, p. 553
(8) ibid. p. 539
(9) ibid, p. 540
(10) ibid. p. 541
(11) ibid. p. 554
(12) See The *Logic of Ambiguity*. www.duversity.org, also Low Albert (2002) *Creating Consciousness* (White Cloud Press: Oregon)
(13) Koestler, Arthur, *The Act Of Creation*, London 1964, Pan Books
(14) Jones, Roger, *Physics as Metaphor*, Meridian Books: New York
(15) Peat, David and Bohm David, *Science, Order and Creativity*, Bantam Books: New York
(16) Eliot, T. S., *On Poetry And The Poets*, Faber and Faber, London, 1957
(17) Ghiselin, Brewster, *The Creative Process*, Mentor Books Toronto, 1967, p 25
(18) The anatomy of the primordial double bind is rather more complex than we can deal with in this article. The above is an abbreviated version, which is enough to make the necessary point. Readers who are interested in delving more deeply into this are invited to read *The Iron Cow of Zen, The Butterfly's Dream* or the *Creation of Consciousness*. Those interested in the connection between the double bind and *manas* are invited to read the chapter on the Lankavatara sutra which will appear in the book Low Albert, (2000) *Zen and the Sutras* (Charles E. Tuttle: Boston)
(19) Herrigel Eugene *Zen in the Art of Archery*, Routldge and Kegan Paul : London, 1953
(20) Briggs, John, *Fire In The Crucible*, Los Angeles 1990, Jeremy Tarcher, 288
(21) Maritaine, Jacques, *Creation in Art and Poetry*, Meridian Books: New York
(22) Benoit Hubert, *The Supreme Doctrine*, Routledge and Kegan Paul: London, 1955 pp. 117-134