Retro Review Article: Consciousness, Learning and Mind behind the Iron Curtain: The West Still Playing Catch-up?

A Review Article by **Grethe Hooper Hansen**

Human Possibilities: Mind Exploration in the USSR and Eastern Europe. [Being 'A first person account of mind exploration – including psychic healing, Kirlian photography and Suggestology – in the USSR and Eastern Europe]
By: Stanley Krippner, Anchor Press/Doubleday, New York, 1980, 348pp
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This book, published in 1980, reveals the deep exploration of consciousness that was taking place in universities in Eastern Europe towards the end of the previous century. Soviet academe, with thinkers such as Pavlov, Luria and Vygotsky, was well grounded in psychology and also recognized the importance of parapsychology as an ongoing exploration of the bounds of human possibility, beyond the limitations of prevailing beliefs and social practices. In the West, it was taken up by thinkers struggling with the strait-jacket of logical positivism, to explore a world conceived as multi-dimensional rather than confined to the physical and rational.

Dr Stanley Krippner, director of the Saybrook Institute for Parapsychology, played an important role in the growth of American understanding, travelling to conferences in the Eastern bloc and bringing back new ideas and information to the West. His discoveries almost certainly had an influence in the shaping of initiatives such as Heartmath, Mindfulness and the Global Consciousness Project that have put America at the forefront of the movement towards transformation of consciousness. In *Human Possibilities*, he describes his visits to conferences and meetings in the Soviet Union, accompanied by his student assistant Richard Davidson, whose long hair was an embarrassment to the more formal Russians. Years later, as a teacher himself, Davidson would be instrumental in the University of Wisconsin's MRI exploration of the brains of meditating monks, which led to a new understanding of the mind and collaboration between the Dalai Lama and academics.

Dr Krippner begins with his first arrival in Moscow in 1971 to speak at a conference organized by Edward Naumov, director of Technical Parapsychology at the Academy of Pedagogical Sciences, where he sets the scene and introduces ideas pursued later in the book. At the time he was struggling to finance his Dream Laboratory at Brooklyn's Maimonedes Medical Center, whereas Russia was pouring funding into parapsychological research. The reason for this, as Dr Krippner had pointed out in a 1966 review, was that the research of physiologist L.L. Vasiliev and his book *Mysterious Phenomena of the Human Psyche* had placed psychical research 'squarely within the framework of Marxist doctrine'. The fact that the Russians followed Marxism, rather than the Cartesian direction of scientific materialism of the Western world, meant that they retained to some degree the 'perennial wisdom' that recognizes a multidimensional world; they did not deny

the validity of all that exists beyond the physical or material. Kirlian photography, for example, a Russian discovery, penetrates beyond the physical dimension of an organism to capture the energetic matrix that exists around it, which may reveal health conditions that have not yet reached the physical level. It also registers the subtle emanations from the acupuncture points on the human body, where direct electrical current can be accessed; Russian physicians recognized that the body system is electrical as well as physical.

Soviet medicine was, in many ways, far ahead of the Western model. It focussed on health as well as illness, which included health maintenance by exercise, deep breathing and careful nutrition. It recognizes that the brain is instrumental in disease and recovery through its electro-magnetic field and susceptibility to subtle or non-physical sources of influence. For example, fields external to the body can impinge on the body's own biofields to affect blood cells, liver, kidneys and other parts and organs.

While the Western world simply assumes that low-energy waves, such as those used by computers and microwave ovens, do not affect us because there is no visible physical damage, Soviet thinkers recognized that weak electro-magnetic fields can spark nerve firing, which may set off a chain of subtle effects. They therefore take precautions to shield the body and watch out for indications of health problems. Thus, the former USSR has recognized since the 1980s the need to protect Soviet/Russian workers from electro-magnetic radiation – unlike the Western world, where children at school are routinely exposed to WiFi radiation all day long, and signs of poor attention and frenetic behaviour are not interpreted as indications of harm. Another example on similar lines is the assumption in the West that sea predators attack wounded swimmers because they are attracted by the 'smell of blood', whereas a Russian doctor might assume that through water, which is itself a living entity, the energy field of a wound can be picked up electromagnetically.

Later in the book, there is a fascinating chapter on the work of Dr A. S. Romen, who takes the exploration of self-regulation of bodily processes much further than the West had done when the book was written. It was also recognized that as the nervous system is progressively sensitized, the brain constantly grows in size and complexity, and there is a metabolic tendency to higher efficiency and energy production; we are in perpetual change and development. The earth's magnetic field stabilizes our 'head-state' and is a factor in our evolution.

A regular attraction at the conferences was a demonstration of electromagnetic and bio-gravitational fields of mind by people who had taught themselves how to move objects by the power of thought alone. Other similar mental possibilities that were demonstrated were the ionization of air, exposure of film, organic interaction with time and the altering of molecular movement. The tendency in the West at the time was to ridicule such investigation of unseen dimensions of reality; America's most respected poet T.S. Eliot was not above a dig at those who 'haruspicate or scry'. The 1970 Prentice-Hall best-seller *Psychic Discoveries Behind the Iron Curtain* by Sheila Ostrander, a title that implies a degree of tongue-in-cheek, was discussed seriously by Dr Krippner, including gentle correction of errors. Russian academics had mixed feelings about the book, and chose not to support it, but were probably unaware of the extent to which it diminished that which it described.

Because parapsychology deals with the area between psychology and science, an important theme that recurs throughout the book is the concept of 'set' from D.N. Uznadze, which he described as the psycho-neurological changes that play a role in the dynamics of conscious experiences, and determine the direction of a person's inner life and motivation. We think and act the way we do primarily because of the 'set' of our mind, which was formed by life experiences and affects us at an unconscious and organic level, able to change even the functioning of our nervous system. It is a key component of goal-oriented behaviour, but can also block our ability to achieve goals. Freud, by contrast, believed that mindset is created by early experience, which then impacted on internal dynamics, making it very difficult to change, whereas for Uznadze it was the result of some kind of environmental impact and could be adjusted in a similar way. Athletic training, for example, introduces a new 'set' for performance. Another example later in the book was that new forms of music cannot be enjoyed until people have developed a set to appreciate them, noting the time it took for jazz to become popular in Russia.

Georgi Lozanov

My special interest in the book, as a teacher rather than a psychologist, is its exploration of the work of Dr Georgi Lozanov, a Bulgarian scientist who had developed a new form of learning dependent on both a different set and different state of consciousness. This was one of the innovations described in Ostrander's *Psychic Discoveries*,

which then received derisive treatment from American teachers of English, effectively destroying Dr Lozanov's hopes of acceptance in the West.[1] But unlike his critics, Dr Lozanov held Ph.Ds. in neurology, psychology and medicine, and had developed his ideas over many years of experience in psychiatry. He was at first required to use group hypnosis with patients, many of whom had been traumatized during the Communist invasion. But after witnessing an extraordinary feat of memory by one of his patients which, he realized, had been caused unwittingly by his own words and behaviour, he began to explore instead the power of suggestion alone to influence the set of patients. This proved so successful that he developed it into an educational method for both optimal learning and personal development. Its effectiveness was so astonishing that for a while, his extraordinary achievements became a cynosure to Western eyes. He claimed to have gained access to the 'reserves of mind', or potential capacities that remain outside of our awareness and are rarely harnessed in any purposeful way. In the process, he shaped a new set for 'paraconscious' learning.

Susceptibility to suggestion depends on a particular level of relaxation and openness of mind; to pinpoint conditions, Lozanov investigated different forms of learning. He studied the 'stot rayas' of yoga who claimed to be able to memorize the 10,550 verses of the Rig Veda; the brain waves of dozens of Bulgarian psychics as they entered altered states; Pavlovian conditioning; and Bulgarian sleep learning. From these observations, he concluded that there are *laws of suggestion* that are instrumental in communication. If we are not aware of these things, we fall victim to them, not realizing what is happening because they are outside conscious attention and picked up unconsciously.

An example is the effect of 'telling' in education, or presenting all information as fact, which causes children to fall victim to the implication that they are empty vessels to be filled so that, over time, they may become conditioned to a response of reproduction–repetition and a corresponding use of mind. Lozanov therefore 'suggests' rather than tells, presenting all information as hypothesis, so that learners have to participate by making a choice, albeit unconsciously. Information is made too complex (too fast, too much to take in, too many things happening at once) for the conscious mind to deal with. Overloading the conscious mind causes an automatic shift to para-conscious response. The name 'Suggestopedia' describes a combination of procedures and effects that are the opposite of rational positivism, inducing and rewarding a new set for para-conscious response, meaning that it remains just below conscious awareness.

This corresponds with the Western academic concept of *preconscious processing*,[2] which describes the very different form and reversal of rules and conditions of thinking that take place just outside the beam of conscious awareness. To give an example, at the beginning of a Lozanov course, the walls are typically covered with posters, but the teacher ignores them. The mind cannot ignore them: students direct their conscious attention to what the teacher is doing but, at the same time, continue to respond unconsciously to the posters. The posters are designed to convey information in intriguing ways, and the students' ongoing exploration fills them with ideas that continue to develop over time, still unconsciously. When, after a week, the teacher begins to work with the posters, the mind is primed with ideas and information, ready for a much richer experience than they would have had without that unconscious input. When repeated often enough, this will result in a change of set to para-conscious response.

Synchronistically, another initiative based on similar understanding appeared in Italy – namely, Assagioli's *Psychosynthesis.* Research to support it appeared at Harvard University in 1956: George Miller established that the conscious mind can hold no more than 7–9 items simultaneously, whereas the non-conscious has infinite capacity.[3] Mainstream education follows Descartes' focus on the conscious mind, whereas Miller revealed that complex and multi-levelled learning can occur only outside of conscious awareness. An example might be learning to ride a bicycle: we perform simultaneously a great many actions of which we cannot also be consciously aware. But in 1956, steeped in logical positivism, teachers did not know how to apply that model at a practical level. *Laisser faire* was abandoned for the same reason. Lozanov had to work over many years to create a complex methodology that could stimulate and accommodate a voluminous intake of information, allow time for 'incubation' and subsequently draw it into conscious awareness.

Traditional education, targeting conscious awareness, uses a two-pronged approach to learning: reduction of material accompanied by 'hammering in', which leads to stress and exhaustion as well as the phenomenon of information disappearing from mind as soon as the examination is over. Competition is intended to narrow the receptors of the conscious mind to receive a very small amount of information, 7 items plus or minus 2. Lozanov

does the opposite, inhibiting the conscious mind so as to delegate learning to the non-conscious. His method for language learning involves a long text written as a drama, presented first with Classical and then with Baroque music, which each provoke different styles of mental processing, followed by sessions in which the text of the drama is explored, which requires scanning (subliminal learning) and is elaborated dramatically, finishing with a student production. Teach facilitation is exaggerated, a 'pantomime' of body language, gesture, expression and vocal effects, which, together with the huge text, are intended to overload the conscious mind so that learning will take place para-consciously.

Like martial arts, Suggestopedia depends on the relaxation response to sensitize the learner to subtle signals. Lozanov's 'peripheral subsensory stimuli', such as posters and displays, textual notes and illustrations, colour, comfort and classical music and art, both carry information and help to hold an optimal state for natural learning. As Assagioli explained, the principle for selection to the non-conscious mind, different from that of selection to conscious awareness, is pleasure potential. The teacher's task is to make material attractive enough and the experience enjoyable enough to open the receptors of mind; when this succeeds, the result is effortless, unconscious absorption. Lozanov created many ways and means to draw that material up to conscious awareness, noting that the longer it takes, the more complex the result may be. To ensure that learning takes place unconsciously, he presents an informational load *5–10 times greater* than a conventional text, so that the conscious mind is unable to manage the task, and allows itself to be diverted elsewhere.

Karl Pribram linked the hemispheres of the brain with differential processing: the left working like a computer, and the right in a holographic way whereby the image is comprehended instantly in its totality. Lozanov was aiming, not at 'altered states of consciousness', as many people claimed, but at a more subtle shift into a state of deep involvement with the process, which is sufficient to keep the right brain in ascendance and allow suggestive factors to operate. Dr Krippner made the point that Suggestopedic instruction, which includes art, music, body language, dramatization and non-linear presentation of information, has to rely on 'subliminal' perception, which is compatible with the brain's ability to store information holographically. Since Dr Krippner's book was written, further progress has been made to show that the language and nature of storage of the brain is, in fact, story form.[4]

Dr Krippner met Dr Lozanov for the second time in 1975, by which time there had been more exploration of his method both in East and West, and again in 1978 when UNESCO sponsored a presentation of his work, and Dr Krippner was able to observe classes. The method had been very successful in Hungary, where it attracted as practitioners people who were working in the arts, and were therefore able to use the pantomime approach in a particularly effective way, combining voice, gesture, body movement, facial expression, etc. Lozanov described teaching as 'orchestrating', or combining all elements harmoniously. Teachers were required to lead students through the various procedures: prelude and two 'concerts', followed by a variety of activities to elaborate the text, progressing from control to greater freedom.

Throughout the process, students are supported with warmth and confidence to sustain them through the 'incubation' of material. In the process, they develop their new set for learning: bonding with classmates, play, song, drama and dance, confident expectation and anticipation. The success of Suggestopedia, rated at that time as about three times as effective as standard methods, depends on the teacher's warmth, psychological awareness, quality of voice, belief in the infinite capacity of every learner and respect for individual choice and purpose.

Dr Krippner noted three fundamental principles of human life that are fully addressed by Lozanov's method but not in any way by traditional methodology:

1 Interpersonal communication and mental activity are always conscious and para-conscious at the same time.
2 We perceive the world globally, not in small pieces. Thus, every stimulus is 'coded, symbolized, associated and generalized', becoming part of a larger pattern.
3 Every perception is complex. The brain can assimilate infinitely more than education normally gives it! An aspect of both education and therapy is the liberating effect of knowledge.

As a psychologist, Krippner's focus was on Lozanov's 'dual plane': two levels of activity, conscious and unconscious behaviour and response, the seen and unseen aspects of interaction. The teacher has to be attentive to both, whereas traditional methods recognize only the conscious plane, that which is physically apparent and consciously intended. Lozanov's technique for the teaching of grammar is a brilliant example of how to use the dual plane: the first formal 'grammar lesson' occurs only after the teacher has observed from classroom chatter that participants have already learnt

unconsciously the material that will be targeted! The first time that grammar is presented, students are amazed to discover that they already know it – a sure sign of unconscious, effortless learning. Thereafter, grammar becomes a delight, offering systematization of what they know intuitively. Of course, this depends for its success on the teacher's understanding, preparation of the text and activation. Because of Dr Lozanov's difficulty in travelling, his followers were not always up to date on pedagogical detail, and his method was often practised with insufficient knowledge (and I include myself in this).

I met Dr Krippner at a conference in the mountains of Vorarlberg, Austria, where Drs Lozanov and Gateva chose to live after the fall of the Iron Curtain, and enjoyed his fascinating account of the new sciences that correspond with Lozanov's work; the most pertinent, in his view, was Chaos Theory. Unlike conventional learning, the Lozanov process is chaotic and individualistic. After blundering through activations, laughing gratefully at the equal ineptitude of classmates, it is an extraordinary experience for students to hear well-formed, grammatically sophisticated sentences emerging of their own accord from their own mouths. This is also an astonishing demonstration of the power of the unconscious and inadequacy of the conscious mind, which lags so far behind that it often fails to 'understand' the words that emerge, and the speaker has to ask fellow students to repeat them.

Dr Lozanov was accused of 'conditioning' students, but Dr Krippner points out that those who remain unaware of the barrage of suggestion that they are receiving all the time from the screens that surround them are the ones who are really being brainwashed! It is extraordinary that at this period in history, when we have the benefit of neuroscience, education still has no working concept of the different functions and behaviour of the two brain hemispheres in the learning process. For Lozanov, it was vital to uphold the balance between the two because the left constantly seeks to dominate and take over.[5] Once this happens, it is difficult to restore balance and reinstate the global mode. Lozanov's ways of sustaining right hemispheric activation are speed, laughter, imagery, music, poetry and song, friendship, confidence in the outcome, belief that all is unfolding perfectly, and an expectation that something exciting is about to emerge. Reports on suggestopedic practice include health benefits, both physical and psychological, absence of fatigue, a more optimistic approach to life, greater friendliness and general sense of connection rather than separation. Dr Krippner expressed his admiration for Lozanov's masterly integration of psychology, psychiatry, learning theory and aesthetics.

Sports in Russia

This chapter began with a fascinating account of Dr Romen's experiments in self-control of the nervous system, the exploration of sleep learning and general control of body functions. As part of its pursuit of human possibility and for the greater glory of Marxism, the Eastern bloc was determined to produce the world's greatest athletes, and invested enormous resources and effort in this endeavour. Dr Krippner travelled to East Germany where future athletes were initially identified as early as Kindergarten level and were whisked into a fast track of specialist sports schools; serious work began in the fourth grade with special dietary and exercise programmes. Outstanding children would proceed to one of sixteen Sports Institutes. Dr Krippner visited the Leipzig Institute of Sports where he watched intensive training that involved hypnosis, autosuggestion, the plotting of physiological 'highs' and 'lows', films and massage. Caffeine was given before training sessions, while relaxation and regeneration exercises followed training sessions and competitive events.

Sports were popular and highly regarded at all levels of society. One recipient of the title 'Hero of Socialist Labour' was Alexander Mikulin, who, in his eighties, wrote a book on longevity and created a 'health machine' for the elderly. Western athletics has now caught up to some extent, including self-suggestion and training in imaging, such as the 'inner game', but the USSR was doing these things half a century ago, with spectacular results in international competitive events. They were also far ahead of the West in techniques such as autogenic training, breath and breathing, sophisticated biofeedback and kundalini practices. Enormous funds were spent on facilities for children, providing specialized schools for music, ballet, arts and sciences, which were available to all. Dr Krippner tells the story of Pavlova, who emerged from a country village to be tracked through appropriate ballet schools.

That was the shiny side of Marxist idealism; I encountered only the dark when I worked for several years on summer schools in Slovakia, another invaded land, as a teacher of English to college teachers. My students loathed Marxism, and had been devastated by the Communist invasion; most had lost their family homes and were living in identical apartments with

identical furniture in dismal blocks. Few dared to speak out because spying was well rewarded; the outspoken were regularly punished with refresher courses in Marxist doctrine. The more courageous took us to see dysfunctional farms with empty sheds full of rotting sacks, and to the hills, full of hidden gun emplacements, above their beloved blue Danube, which had been reduced to a greyish sludge. When a group of us went to a country inn for lunch, we were turned away because we were too many; there was no incentive to work or make money. Every evening after dinner, we sang together for about an hour; singing was a means to emotional survival. One of our students was also a sports star, a magnificently muscled karate champion who in spite of his value to the state, frequently paid the price of his black humour and criticism of the regime.

Later, when I met Dr Lozanov, I noticed that he was branded on one hand to be made recognizable as a traitor when, as a schoolboy, he opposed the invasion of Bulgaria. I had invited him to Florence to teach a course in Suggestopedia, and afterwards, as a gesture of thanks to the British Institute for hosting it, organized a press conference. When I told him, his face turned grey and he said, 'Why have you done this?'. I explained that I wanted to make his name known. That is what he was afraid of: he whispered, 'But I have a family...'.

On the one hand, the USSR claimed to have an exceptionally low crime and delinquency rate due to the nationalist pride and concern for common welfare, the inherited and acquired abilities of the 'New Soviet Man'; on the other, Marxist idealism was forcibly upheld by terror tactics. Dr Krippner's understated example was the disappearance of the leading figure in academic parapsychology, Edward Naumov, who had invited him to a conference but, on several occasions, was deemed to have shown insufficient respect for official procedures. He disappeared into prison, where he endured beating and eventually reappeared in a lowlier post. The chapter on 'Problems of the Unconscious' reflects the irony of a situation in which all the noble philosophies and theories that were held were tinged by the suffering of a nation, as a consequence of fanatical adherence to the rigid and uncompromising nature of Marxism. Guiding principles of Soviet personality theory were:

1 Personality can most effectively be developed and maintained in, by and for the collective.

2 The collective is the principal factor for the development of personality.

3 One can study the children while teaching them, and teach the children while studying them; see below.

Makarenko

The most impressive example of the above is the work of A.S. Makarenko, who was extraordinarily successful in rehabilitating hundreds of delinquent children who had been made homeless by the 1917 Revolution and the civil war that followed. He subsequently wrote a book, *The Road to Life*, that became a major text on personality development. Soviet psychology believed, unlike Jean Piaget, that the first and most fundamental impulse of the child is social behaviour. Makarenko drew on this understanding to build a new foundation of personality as the result of assimilating forms of social behaviour in the course of relationships in a collective camp, school or commune. The child arrived at a sense of social ownership through criticism and self-criticism in the light of the good of the collective – which became a form of self-upbringing and self-disciplining. Dr Krippner pointed out that this is the opposite of the Western quest for personal autonomy.

Knowing nothing about Makarenko and therefore the personal nuance behind the story, I give a similar example of a disciple of Makarenko, Vasily Sukhomlinsky, who applied the same principle to the schooling of war-orphaned and brutalized children. He too emphasized idealism and national pride; however, it was softened and made meaningful by his own sensitivity and tenderness. The location was a forested area, which the children already knew well, but he taught them to see it in a different way. He introduced them to the wonders of nature, among which they walked barefoot, teaching them to marvel at spiders' webs covered with dew, and find their own poetic ways to describe the images and stories they might detect in the clouds above; the power of the collective was fortified by nature and mediated by Sukhomlinsky's own sensitivity. Delinquent children were given the care of plants in the first instance and of small animals as they progressed; this transformed them more effectively than words. He managed to achieve high academic standards and a love of learning by introducing material in a sensitive, imaginative way with careful calibration to individual readiness, ultimately giving the children great pride in their work and in the Marxist tradition, to which he was devoted. But it was clear that the transformation of children was due to tenderness at least as much as technique. He had fought in the war, and would eventually die from his wounds; his wife and child had died in imprisonment in the hands of the Germans; he had experienced enormous suffering, and his way of transcending it was through deeply sensitive work with

children, which lifted the principle of collectivity to a greater height.

Because the Soviet countries had not dived so deeply into rationalism, Psychology included from the beginning many concepts that would arrive much later in the West, such as the plasticity of the brain in relocating lost function to other areas, and Pribram's holographic concept. It was recognized that consciousness and behaviour are a unity, and that creativity is an essential trait that emerges in search of self-realization through some kind of 'productive work'. Imagery was seen as the basis of creative intelligence, and emotions as another component of inventive behaviour, part of the image-forming process. Sensory functioning was considered the most important aspect of the nervous system, and the essential organizing process of the brain. Behaviour implies orientation and coordination; the 'orienting reflex', or impulse of response to the outside world, creates a need to feel part of any experience (which Lozanov dealt with particularly skilfully). Another difference from Western thinking was the impossibility of measuring intellectual potential as independent from experience and education. Intelligence is associated with creativity and seen as a collection of psychological abilities that become evident only when people are engaged in activities. Creativity emerges from interaction with the environment.

But the recurrent and disturbing theme of reaching transcendence through suffering returned with a demonstration of the effect of Stalinist oppression to heighten the creativity of such famous figures as Boris Pasternak, Alexander Solzhenitsyn and Andrei Sakharov. Another was Dmitri Shostakovich, who was bitterly aware that the only arbiter of music who carried weight in the Soviet Union was Stalin himself, who regularly destroyed the lives of those who displeased him. Unable to express his fury in words, Shostakovich poured it into his music, particularly the 5th Symphony. The 7th was purportedly composed in reaction to the Nazi invasion, but in fact expressed the reality of Stalinist terror; the 13th was written in reaction to anti-Semitism, and the 14th to the Gulag prison camps. Eventually Shostakovich was 'rehabilitated' and honoured, but he died a bitter man.

Even more harrowing was the story of Nicholas Margineau, who was at first dismissed from his university post by the Nazis, then reinstated after Hitler's defeat, but then fell foul of the new Communist government for refusing to denounce America and imprisoned; he was one of 356 prisoners who lost 40 per cent of their body weight. When he and fellow prisoners went to receive food sent by their relatives, against the orders of the guards, they were left naked in solitary confinement in extremely cold conditions for three days and nights, and beaten every day. But their idealism was such that they remained unbroken. This led Margineau to develop his concept of 'height psychology', the elevation of spirit through positive choices and superior values, which bring greater meaning to life; he describes the 'deep peace' in the eyes of his fellow sufferers that transcended all internal conflict and could endure any punishment with tranquillity. Given the examples above, the unspoken question is whether depth is the precursor of height; Lozanov, in memory of his own depth, attempted to create a system beyond that dynamic.

The final phenomenon is the most exciting and forward looking: advances in understanding of bioplasma, the fifth state of matter or most subtle component of a living organism, when viewed at a subtle level as a biofield. Apparently this has no spatial formation and consists of fields such as the electrostatic, electromagnetic, acoustic and hydrodynamic. It is believed to be enhanced by breathing exercises. Intervention at this very subtle level permeates down to the physical level; this is the explanation for healing such as homeopathy. Bioplasma can be captured by Kirlian photography; the most notable scientist engaged in this field of study at that time was Victor Inyushin, also in Alma-Ata, whom Dr Krippner was delighted to meet.

The book finishes with a cordial meeting with Nikara Bakirovna, Minister of Science for the Kazakh SSR and Associate Chairwoman of its governing council, and the leading scientists of the time, Romen, Inyushin and Victor Adamenko; Dr Krippner was very impressed by the positive ambitions of Nikara Bakirovna. His talk on psi research in America was followed by discussion. Romen made the disturbing observation that the leading nations had defensive techniques to prevent themselves against ever more powerful bombs, but in his view, the possibility of psychic warfare was a much greater danger. As far as we know, his fears have not so far been realized.

Notes

1 He was accused of 'pseudo-scientific gobbledegook' by a teacher of English as a foreign language who had no science background, which effectively destroyed his reputation in the university world.

2 N.F. Dixon, *Preconscious Processing*, Chichester: John Wiley, 1981.

3 G.A. Miller, 'The magical number seven, plus or minus two: some limits on our capacity for processing information', *Psychological Review,* 63, 1956: 81–97.

4 See L. Mehl-Madrona, *Healing the Mind through the Power of Story: The Promise of Narrative Psychiatry*, Rochester, Vt.: Bear & Co., 2010.

5 See I. McGilchrist, *The Master and His Emissary: The Divided Brain and the Making of the Western World*, New Haven, Conn.: Yale University Press, 2009.

A Response from **Stanley Krippner**

Back to the USSR

Reading the perceptive review of *Human Possibilities* sent me on a nostalgic trip, to paraphrase the title of the Beatles' song, 'Back to the USSR'. Grethe not only read my book, but understood it. I only wish the book had been reviewed by her when it was published in 1980; it received only a handful of reviews, and was only translated into one other language – a fine Brazilian version that inserted some electronic illustrations that augmented the text.

There are only two errors in Grethe's review that I was able to spot. There is no such entity as the Saybrook Institute of Parapsychology. I wish that there were, but this would require more funding than Saybrook University has available. And at the end of the review, Grethe suggests that 'bioplasma' could be detected by Kirlian photography. Actually, the Soviets told me that biplasma is so fragile that the electrical jolt used in Kirlian photography would probably destroy it. However, the effects of bioplasma can be detected. The recent advances in high-voltage photography may make it possible to directly photograph bioplasmic effects, as well as the mandatory attempts to replicate them.

Grethe correctly notes that Soviet workers in parapsychology placed their work squarely within a Marxist framework, a strategy that could be utilized elsewhere. Western parapsychology researchers often overstate the 'revolutionary' impact of their data, a move that is not only premature but offsetting to mainstream scientists. Grethe is on target in discussing Soviet medicine, Soviet athletics, and Soviet psychology. The advances made in each of these fields are now impacting Western thought, but only in a very small way.

Finally, I was pleased to see Grethe's tributes to Lozanov, Romen, and Naumov, all of whom were pioneers in these fields. On a recent trip to Moscow and St Petersburg sponsored by People-to-People, an organization conceived by President Dwight Eisenhower, I introduced the travellers to many of the people described in *Human Possibilities*. Regrettably, Naumov had been assassinated by black marketeers a few weeks before our arrival; what was to have been a birthday party for him was turned into a memorial service, but one with joy and humor as well as nostalgia. I told our group that this attitude was typical of Russians, and helps them reframe and recover following tragedy, such as the loss of 20 million of their citizens during World War II, what they call 'The Great Patriotic War'. Russians are resilient, can operate well even under hardships, and have shown the ability to bounce back after restrictions are lifted. This resilience is something that can inspire creative people all over the world.

Grethe Hooper Hansen left school teaching in search of more effective methods in EFL, English as a Foreign Language, and chose Suggestopedia, the creation of medical doctor Georgi Lozanov. After working in Italy and bringing Dr Lozanov to Florence, she became head of SEAL (the Society for Effective Affective Learning), an international organization founded to explore Lozanov's work, which is becoming comprehensible only now as the Western world wakes up to the limitations of scientific materialism.

Stanley Krippner, Ph.D., is Professor of Psychology at Saybrook University, San Francisco, California. He has been President of both the Association for Humanistic Psychology and the Society for Humanistic Psychology. His other books include *Personal Mythology, Demystifying Shamans and Their World, Haunted by Combat,* and *The Voice of Rolling Thunder.*