

Shrink Rap Radio #317, August 10, 2012. Body Therapy and The Embodied Life

Dr. David Van Nuys, aka “Dr. Dave” interviews Stanley Keleman, PhD
(transcribed from www.ShrinkRapRadio.com by Jo Kelly)

Introduction: My guest today is long time body work pioneer Dr. Stanley Keleman and we'll be discussing his work on formative psychology and the embodied life. Stanley Keleman is the director of the Center for Energetic Studies in Berkeley California, where he teaches the Formative Approach to human development. He received an honorary Ph.D. from Saybrook University for his contributions to the field of body psychotherapy and humanistic psychology. He is also the founder and developer of Formative Psychology, the director of research at the Center of Form and Development in Zurich, Switzerland, and a visiting lecturer at the Spectrum School of Humanistic Psychology in London, England. He has authored the pioneering books *Emotional Anatomy*, *Embodying Experience*, *Your Body Speaks its Mind*, *Insults to Form*, *Living Your Dying*, and *Myth and the Body*, in addition to numerous clinical books. Currently, he is writing a book on dreams and the body.

Stanley Keleman has been practicing and developing somatic therapy for over thirty-five years and is a pioneer in his study of the body and its connection to the sexual, emotional, psychological and imaginative aspects of human experience. Through his writings and practice, he has developed a methodology and conceptual framework for the life of the body.

Stanley Keleman has been the director of the Center for Energetic Studies in Berkeley, California since 1971, where he maintains a private and group practice and an active schedule of national and international professional programs. He is the honorary president and director for research at the Zurich School for Form and Movement, and the Institute for Formative Psychology in Solingen, Germany where he also teaches.

He is the recipient of lifetime achievement awards from the European Body Psychotherapy Association and the American Body Psychotherapy Association.

Stanley Keleman's website is <http://www.centerpress.com>

Dr. Dave: Stanley Keleman welcome to Shrink Rap Radio.

Keleman: Thank you, I'm glad to be here.

Dr. Dave: Well it's great to have you on this show. Of course I've known about your work for years – particularly in the 70's I had lots of students who were taking your workshops and working with you and they were very excited about your work, and I was seeing your name at various conferences and so on. Back then there was a kind of Neo-Reichian revolution calling attention to the body and the approach came to be called bioenergetics, and on the east coast the go to guy was Alexander Lowen and on the west coast it was Stanley Keleman.

Keleman: That's true.

Dr. Dave: OK – you're not going to deny it (laughing).

Keleman: No, Al Lowen was a good friend of mine, he was an original teacher of mine. We were friends til he died. We had regular telephone contact. I grew out of what he had to say, or I grew my own way – but we were friends for as long as he lived and I still consider him a friend.

Dr. Dave: Yes, well that's great. I found a lot of information about you that I didn't know on your website <http://www.centerpress.com> For example I discovered that your interest in the body started very early, first in athletics and then with your training as a chiropractor.

Keleman: Yes that's true.

Dr. Dave: And did you ever practice chiropractic?

Keleman: I had a very thriving practice from about 1955 to approximately 1964. I had developed a very specialized technique for the reduction of stress and I had a very big time show business practice, and opera singers – it actually started with opera singers.

Dr. Dave: Oh interesting, fascinating.

Keleman: The guy who interacted with me and actually did teach me something – Dr. Bill Herman, William Herman was a medical doctor who won the first Caruso Scholarship for Singing – and he understood singing and he understood the tensions in the body as interfering with the singing pattern. And so he would send clients to me and I would work with him

back and forth, and we had a warm interaction over years which was very fruitful in understanding singing, and speaking, and the problems of stress that were related to it.

Dr. Dave: Well that's fascinating I can see how that helped to lay the groundwork for the places that you went. Clearly you had a wide ranging intelligence as your subsequent career indicates. You weren't content to just stick with chiropractic but went on to seek out many additional trainings, for example you went on to study bio-energetics with Alexander Lowen – you already mentioned that –and then you went on to study at the Alfred Adler Institute. How did that experience change your world view?

Keleman: Well what I did – one of the things that put me in a bigger frame – Adler dealt first of all with the social aspects of human interaction, so that was an important concept for me but more importantly Adler wrote a very famous book in which he talked about organ inferiority, and by that he meant an organ that wasn't working – like your liver or some other organ – and which dominated your behaviour, and how you thought about the world and that that became the basis for inferiority feelings. Then the organism's will to power which was a much more dynamic concept than the drive only for sexuality. So organ inferiority became a very powerful understanding and tool – I spent almost 200 hours at the Adler school so that was fruitful to me.

Within the same time, with Bill Herman and Al and the Adler Institute – Nina Bull who was a fellow in who's who in science and was a teacher in understanding attitude psychology which really was the driving force that transformed the chiropractic education into a somatic education – so there I was. Nina gave me a very powerful neurological background; she wrote several books *The Attitude Theory of Emotion*, and *The Body and Its Mind* in which she showed the neural and the muscular interaction was basically connected to patterns of behaviour that were muscularly and neurally organised that represented the emotional organization of the person and how they were involved in behaviour.

Dr. Dave: Well that sounds like a really important milestone in the development of thinking about the body and psychology. Do you remember about what year it was that her book, *The Body and Its Mind* came out?

Keleman: Let's see, that could have been about 1960 or 1961.

Dr. Dave: OK that's pretty early.

Keleman: When I met Nina the book hadn't been out for long. I have it on my desk right now (laughing) I could take a look at it.

Dr. Dave: No, that's OK (laughing). Still not content to rest on your laurels, your inquisitive mind took you to Europe where you studied Daicen Analysis in Zurich with Dr Dori Gutscher in the school of Medard Boss. I had not heard of her, but certainly I've heard of Medard Boss and Daicen Analysis. How did that experience impact your thinking about the body?

Keleman: Well my trip to Europe was very interesting because what I became deeply interested in is what is the nature of somatic freedom, what is the nature of the life of the body in terms of being an organism that is trying to make its way into the world and is very influenced by Darwin. And so I thought that somewhere the nature of soul was missing – what I thought was soul at least in those days – from American psychology as it was taught then. It wasn't in the Adlerian School, it wasn't in the school of analysis of the Freudian people, it wasn't in Al's school and it interested me. And Diacen Analysis was very interesting to me in the way he put it forward as a part of the existential movement, which was very interesting to me.

So I went to Europe where I met with Karlfried von Durckheim in Germany and with Dory Gutscher and the Deicen Analytics School, and I became familiar with Boss himself and talked about an existential view of how the body is in the world, (that's a Heideggerian point of view) but I translated all that physically – how is the body in the world, how is the person as a body finding his way in the world, what are the essential ingredients for the organism forming its adult in the world.

And I found that Karlfried who was a psychologist himself, and a PhD. in Philosophy and Dori Gutscher was a medical doctor and a psychiatrist, provided a very powerful existential point of view. It was in Europe that I met Hillman and we had some very nice discussions and we continued some form of friendship back in the states when he left the Zurich Institute – but it wasn't in the Jungian world either. So then I realised that I had to begin to understand what an embodied life was.

Dr. Dave: Yes and speaking of the existential viewpoint, that kind of became the basis for humanistic psychology.

You returned to the United States from Europe in 1967 you moved to California, you interned at the Esalen Institute in group dynamics where you were exposed to humanistic psychology – which was the leading edge of psychology at that time. There's an atmosphere of cultural revolution you

write, and you establish your own form of working bodily. Your interaction with many leaders of the humanistic movement, for example Carl Rogers, Fritz Perls, Virginia Satir, Alan Watts and others provided a forum for your ideas. And then you meet Joseph Campbell – who I’m a big fan of – and began a fifteen year association teaching an annual program in which the two of you developed connections between myth and the body. And these workshops evolved into annual programs taught by you in Berkeley and in Solingen Germany that connect dreams, body and the formative process.

So I didn’t know any of that! What a rich and fascinating background.

Keleman: Well for me it was, let me put it this way: I was not only forming a way of working, I was forming my own life. (laughing) I was my own experiment in this, and also developing a work which led me more and more to understand that really the heart of human misery in general package was that there was an ignorance about how to meet the demands of a society for learning and educating and dealing with relationship that the organism could not do, or that it didn’t know how to do it, or that it forgot how it did it in its childhood episodes. And I began to see – these were influenced by the mythology approach of Joe and what mythology was, and about the existential point of view, about how a person tries to be in the world – but they put the whole thing on a sort of innate intelligent that you just learn to do this as if you didn’t participate, that it happened by osmosis. Just completely misunderstood the nature of ritual, the nature of practice, the nature of how you use your body – always trying to correct something rather than form something.

Dr. Dave: Yes, well this really begins to lead us into your current work, and it also knowing all of this about your background helps me to understand better the papers that you’ve written which struck me as very philosophical and even metaphysical in their tone. So now I understand better how it is that you’ve come to move to a level of abstraction even while talking about something as concrete as the body.

So tell us about your work today, and what you call formative psychology, and you make a distinction between a “bodied life” and an “embodied life” and that sounds kind of subtle. What are you getting at there?

Keleman: Well let me back up a little bit and come back, can I?

Dr. Dave: OK, yeah.

Keleman: The conversations and the workshops with Joe Campbell were extremely illuminating. Joe understood that the life of the body was at the heart of mythology but he didn't quite know how to translate it. So in the telling of the myth, which Joe was the master of – setting of certain symbols as images that he showed on the screen – I translated all those things into biological events. For instance we did a gigantic program on the nature of mythology showing all the signs that were related to embryology, that they were really talking about an embryological process. Like the snake and the many petalled crown was actually the spinal cord and the pons and its relationship with the thalamus and the cortex – and I made that translation.

So once I understood the biological events as being the background for the experience of how we sort of articulated being in the world, I understood that the body is feeding itself back about its own experiences; and that most people, including Al Lowen, try to help people understand that we have a body, and that psychology including humanistic psychology was in fact trying to connect people back to having their body and how their body influenced being in the world. And I began to realize that that was a very important first step but having the body doesn't mean that you form the body, it means that your life is formed by the body and by all the innate processes that we inherit, including our social way of imitating – like being a gentleman, or a lady or whatever. And that nobody really understood that how you practice a behaviour like speaking, like writing, like learning to pay attention, like how not to hit your sister or brother, that you practice this.

I began to see that what you practice, how you walk, how you write, how you try to teach yourself to speak, how you monitor your muscular reactions about being with your parents was the foundation of self-knowledge and forming a personal life. Forming a personal life was those acts that you practice, or those events that you try to incorporate into how you act that gave you a personal life; and that was different than the body you inherited, it was the body that you shaped. How you are shaping your own behaviour is the embodied life which is different than the body life – they are connected – but it says that how the organism uses itself, transforms what we inherited, and that is the process of evolution. That became a work of helping people try to form a life, try to disorganise and reorganise behaviour which has been bodily formed into our shape that is much more applicable to being alive, being in relationship, and being intimate.

So there's a talk that I gave to the Osteopaths way back – I gave a talk on the life of the body and what it means to be embodied, and a question kept coming up from the osteopaths: could you tell us, why is it that when patients come to see us they leave the office, they feel good and then they

come back and they say well they felt good for three days then something happened, now I feel not so good anymore. What happened?

Dr. Dave: Yes.

Keleman: They asked me what happened. I said, you forget that any intervention requires that the person reinforce that intervention, and not be passive to something that happens and simply to carry on as if he doesn't have to do anything. So you are sort of saying, the body will heal itself and you don't have to do anything.

Dr. Dave: I think we all have this wish for the magic silver bullet, where all we have to do is take a pill, or go see a body worker or a therapist and they'll fix it for us. But you put a lot of emphasis on volition.

Keleman: I think it's a word that I've changed to "voluntary effort".

Dr. Dave: OK.

Keleman: Voluntary effort; because I wanted to take away from it this is not a wilful act. It is the development of voluntary muscular effort – how you learn to walk, hold yourself steady. The organism is, the child is practicing that – you see them practicing holding steady; they are correcting themselves and then you realise they are efforting, and efforting is in fact a voluntary act which involves connected muscular tissue and cortical tissue. How we learn to walk, how we learn to steady ourselves, how we learn to walk like our fathers or walk like our mothers, is a voluntary act which makes a connection between the cortex (especially the frontal lobes) and muscular effort.

Making that link between efforting, experiencing, making neural maps or images, and then cognition are all linked. Then if you do something to a client – putting your hands on them, getting the tissue to relax, or whatever you do, or even having an insight to a conversation – how is that embodied? What does the person do to support that organismic state that turns insight or feeling into action?

That becomes I think the central issue of evolution, and the central issue that every person has in their life. How do they make a transition from adolescent to adulthood, from being a full grown adult to being an older adult? You have to practice behaviour; practicing behaviour means making an effort that you can repeat and master, and as you repeat and make masterful use of it you create cortical stimulation and cortical dialogue. You

link that to words and narrative, and then you have a body that you've made inside the body you've inherited and you begin to have a sense of having power in the world.

Dr. Dave: You know I think about a practice like tai chi which I practiced for several years, and it's very slow repetitive movements over time. How might something like tai chi relate to what you're saying, because it sounds like it might embody at least part of what you're talking about?

Keleman: I'm not a master of understanding tai chi except the most generalised way, but as far as I've understood – at least from the way I work – if you make a fist and open the fist you see that it's sort of habitual, you just do it because it's a closing reflex, but opening the hand takes more effort than closing the hand. So you see that there's more effort in extending the fingers than in closing the hand. Then you realise that there's a process going on in which you are actually sequencing an action, and altering the sequence of an action, and in doing that you have to do small steps, increment steps to allow different muscular sequencing to happen – so that you have an action of closing the fist that you can do slower, and slower, and slower until you realise that you have in closing the fist an organised response. It's not simply closing the fist, it's that contraction taking place in stages that is altering the joint surfaces, that's altering how the body balances itself, and also signals learning a different order of sequencing.

It's not producing a smooth muscle action like in tai chi, but a series of very differentiated small acts, like playing the piano or stroking the violin – how you are using the fingers on the fret – how much effort it takes to learn that. To learn that muscular control which allows a very specific action, with very specific intent, that fits a style of how you are made to play something or carry out an action. That's voluntary muscular effort that requires the act of attending, the act of differentiating a muscular action, the action of muscle and emotional feedback, and then the repetition until the act has a library of multiple events that it can use in the same way that it would use verbal language.

This is what the human enterprise is about, and I think that that's an unusual way of thinking about how to practice a behaviour.

So if you say to a person who is very anxious – and he or she tells you I am always anxious – and you ask them to show you the pattern of anxiety. Now anxiety is part of the startle reaction, which means the organism stops, freezes, their hands open up, it's a preparation to investigate, or run, or

attack; you see the hands open up, the neck freezes, the eyes open, the breath is held.

And you just say to the person, can you with voluntary effort make that pattern of anxiety, that startle pattern, more intense. So then they can squeeze themselves more, make themselves stiffer, and then you say to them: now can you back off? Can you do it less? Don't relax, do it less just like you did it more. First simply make small little steps in reducing the tension pattern of alarm – which is the startle posture – and then they realise that they could affect the intensity of their anxiety. Then they realise, hey wait a second if I do it this way I might not get rid of the anxiety but I now can manage it. I don't have to be so anxious that I become a reflex animal, I could now say I can do this, I could be less anxious – and what is it like to be less anxious facing an authority, or my own anxiety. So this now has very practical application in managing different forms of anxiety.

Then we can take that into depression. I wrote an article for the US body of psychotherapy on the nature of depression being a series of motor acts: from alarm, to helplessness, to getting ready to withdraw, to being defeated and collapsing. That there are four or five different bodily states – very identifiable – where somebody has gone from the stiffness of being fight or flight, to the stiffness of being frozen and unable to do anything, to the shape and the body shape of being collapsed or defeated. And that those shapes can be addressed – just like we did with the alarm pattern – to be less intense; and when they are less intense you have a different state and are less depressed, and less defeated, and less confused. I think I can at least relate to something I don't understand rather than being overwhelmed by it, and that means you have a new shape and you can practice coming back to that shape over and over again until you develop a behaviour, a relationship to yourself and the other person.

Dr. Dave: When you talk about somatic shapes based on processes such as constriction, expansion – and you enumerate a bunch of processes – it sounds a bit like Reich's concept of character armour; but you seem to have elaborated on it, taking it further.

Keleman: I don't think so; I think I'm closer to what Nina Bull has elaborated. He talked about tension states, and armouring state, and being polite or being defiant, or whatever. I'm linking them to inherited patterns of behaviour, and they are listed – like in one of the articles I talk about the stress continuum – so that anxiety is part and parcel of the alarm pattern, the alarm pattern is part and parcel of the vestigial pattern. It is a body shape, it is an inherited body shape to deal with situations in which the organism

doesn't have an immediate response to, and otherwise a shape is a whole muscular behavioural pattern that carries with it the readiness to act, and all the accompanying feedback that you recognize as emotion or as feeling.

So it's different than what he meant by armouring. I'm saying the organism has a series of inherited behavioural shapes, and those behavioural shapes whether they're going forward to hunt, to stalk to look for a way of attacking another animal, or a way of retreating and going back and preparing to run, or to run, these are inherited patterns. The same as to reach out, to bond, to hold on to cling to the mother so you don't fall, to hold onto something so that you can hold your balance. These are behavioural shapes that are invoked in situations that call for a specific action or an action that doesn't have a specific use.

Dr. Dave: Is it fair to say then that somatic change leads to psycho emotional change?

Keleman: If you take somatic change now, you know there's nothing that happens that isn't the body. Once you begin to understand that the body is a very complex anatomical organization that has interactions with itself in generating behaviour, so that in my opinion that how a person is motorically involved is the way that it thinks, the way that it is rehearsing to practice an act, is a way of generating the sensations that are the fuel for thinking and emoting.

Then you understand that just like the person who plays the fiddle and is pressuring the strings on the fret with different intensities is in fact engaging in the basic language of the organism: pressure, duration, intensity, sequence of movement that become part and parcel of how words are formed and how language is organised. You see that it's an act that is not only muscular but it's now invoking all the neural mechanisms and feedback of sensations that begin a form of language, of images that accompany it, and sounds that accompany it, and also inherited memories, and also memories that you have formed about how you act as part and parcel of an internal subjective dialogue which is accompanying the action.

Dr. Dave: I want to ask you a question which is probably perpetuating the dualism that you're wanting to break through and the question is: how you're feeling these days about psychotherapy through a body approach, versus through a talk therapy approach. Is it an "either/or", or a "both/and"?

Keleman: Well I would say to you, first of all talking is fundamentally a muscular act – you cannot escape that – talking involves how you breathe to

agitate or oscillate the laryngeal muscles. You are sending up sound waves, and then sound waves that are sequenced in a particular way in which people understand muscular movements of the larynx as a form of communication. So talking, and how you talk, and how you use yourself is really important in how you conduct interactions with people who are seeking help. So to me working physically requires also talking and how you talk, it's part and parcel of your social conversation and your internal conversation. You can't work with somebody bodily and not involve language. I think the split is artificial, or it's dramatized that you think language will cure anything.

My big insight coming out of my chiropractic training was an understanding the fallacy of psychoanalysis – when I say the fallacy it doesn't mean that what they did didn't work in some cases. That because you could disassemble and reorganise the way you use words and sequence how you're talking to yourself about something, did not mean that you disengage it from the motor pattern that was perpetuating how you were experiencing feeling. And that they had made a split between languaging and hoping that it would get back and disengage some of these motoric patterns which were at the basis of the person's discomfort. I recognized, no – you can't do that – you have to make sure that that connection is happening. So then you see that the organism is not a dualism, but it's a very distinct and complex organizational wholeness that is always trying to maintain the different motor experiences in a singular pattern of action.

Dr. Dave: Yes, OK.

Keleman: I write in a way that has a philosophical bent, I write in a way in which I am trying – and I love doing it – to form a language of the body. When I talk about organism velocity, rigidity, motility and density I'm talking about the patterns of behaviour, and tissue states – I'm trying to create an embodied language because there is none, it doesn't exist out there. I searched through the world of literature, mythology, psycho dynamics, philosophy – it's not there. We have to create it, and I see it as a stage in the evolution of how the organism is relating to itself. So that clearly is one of my intensions but the work is extremely practical, for example in the way that I ask the patient or client to tell me their dream.

So that they tell me their dream, or after our last conversation about how I would start off I went this, and this, and this ... and therefore I saw this man, and this man seems to be trying to open a door. And I would ask, would you please indicate muscularly the way the person in your dream is using himself to try to open the door. Make the pattern of all the different steps about how he reaches for the knob, or bangs on the door – and the person then

trying to imitate an action that he now has an image of in his own brain (which has made this image) I have now linked image, cortex, muscular action, voluntary imitation. I have now created an interconnected event – muscular, emotional, vascular, cognitive event.

Then the person realizes, hey wait a second I am now creating a muscular act with all the thoughts and associations of my dream. I have brought my dream back into the source of its origin – which is my body has dreamed it, my brain has dreamed it – and now I'm turning it into an action, I understand how I can influence my behaviour and create a way of now not only opening a door, but opening a conversation with another person!

Dr. Dave: What would guide your choice in choosing a bodily action in a dream that perhaps is long, and has a lot of different kinds of interactions and symbols and so on in it?

Keleman: Well the first thing I would say to people is – just tell me what in your dream imagery attracts you? So that would be one step. He may say, oh I'm really excited about them opening the door. Or I would say – just choose one, whether you like it or not let's just choose one. Or then I would understand that this person has a pattern of which I would say let's use the word "density": a kind of hunkering down, hibernating pattern in which the organism tries to mute its reactions and be sort of restrained about being in the world. He or she doesn't want to be exposing themselves, or they are very cautious in how they reach out. Then I may see and point out – hey the guy opening the door is a sort of an opposite of the way you're in the world! So let's see how you now would practice opening the door as a way to disengage or reorganize your hunkering down attitude. So I may use that approach.

Dr. Dave: Great. Now I read that you're actually working on a book about dreams and the body, and I got very excited about that because dreams have been a longstanding interest of mine for many years. I taught a course at Sonoma State University called *Myth, Dream and Symbol*, and of course I drew heavily on your friend Joseph Campbell's book, *Hero With A Thousand Faces*. I imagine in your book you will have some case examples, might there be one that you could take us through briefly?

Keleman: Well I just gave you one about this person opening the door. Do you have a specific one? Just tell me the dream and I'll ...

Dr. Dave: Ah, I don't have a dream off the top of my head, let me think a moment here. I don't have a dream just off the top of my head and you did give us a good example – so rather than press you on that point ...

Keleman: Let's take it this way. If I explained to a person look: the situation you're in is calling for a change in the way you're handling the situation. Let's say that the way that I'm talking to you, and the way you're talking to me you explain to me and show me that you feel helpless. Then let's make the pattern of helplessness more explicit – so then we do that as I've explained with the opening door.

Then you may come back to me and say, you know I've had a dream I had this dream I was in a well, and I didn't know how to get out of the well. So I would then say, wait a second we just were talking about how you densified and made yourself very compressed. So now you have felt that, now you have dreamed about that, so now let's organise how you are in the well: show me, what's it like in the well? Then you will see he'll pressing his body together, and get a gripping hold on his hand; then I'll say "do it a little more" and then he'll say to me, oh my throat! I feel I'm strangling myself, and I feel panic that I won't be able to breathe and I'm very confined. And then I would say could you loosen the pattern of this squeezing, could you undo it in small steps, so that you can get a sense that you don't have to squeeze so hard in a confining situation – whether that situation is you confining yourself, or something in the environment. Then he does it less, or she does it less and they get different senses of being able to be less confined, less confining; and then talk about what is that like, and how we can use this pattern of being less confining, or confining himself when he's at work, when he feels pressured, when he's in a sexual situation, when his children make a demand on him.

Then he begins to use his experience, and his internal cortical reality to alter his behaviour, and form a different way to use himself in the world.

Dr. Dave: There are some ways the example you have just given reminded me of Gestalt therapy, but it seems to me the difference is this very careful and gradual attention to the patterns and the body.

Keleman: Yes, but maybe I should put it this way. When we describe how we think or act, what is in our culture is: think before you act, or feel and then act, or check your feelings so we don't be reactive. Action never is in the first place – but the fact of the matter is action is always in the first place! You can't live without acting, whether it's involuntary or voluntary. You don't realize that the body is always in the preparation of maintaining a

particular action pattern to keep itself alive: whether it's to turn over and sleep, whether it's to stand up, whether it's ready to brush your teeth, there's always a readiness to act. Thinking accompanies that. So I try to get back to the original patterns of organized behaviour which is the foundation of the motoric sensory patterns of self informing, of which the person's doing their primary and secondary cognitive involving themselves. What is the basis of their thinking.

Dr. Dave: OK that's really clear. I wonder, what's your view of the present state of affairs for the body therapy movement in general? I mean you must be aware that there are other approaches out there, other people who ...

Keleman: ... for the Body Psychotherapy Journal on the difference you mentioned between the bodied life and the embodied life ... pointing out that they've made great strides in understanding that you have to have a bodied life, that the bodied life is important and how it's brought into the arena of our daily life. But they don't quite understand yet how you form a bodied life, how you form a personal way of being in the world; and to that degree they have fallen prey to mindfulness, or to a spirituality which is disembodied.

I feel that if I have anything to say to them it's that we have to think evolutionarily, how the organism has created in a few hundred years a cultural organization that is transmitting behaviour than can be both imitated and repeated, that was not programmed by our genetic code, but allows the organism to do two things: one is to shape its environment, and then to shape its own body. That this is an evolutionary event, and this is what we're living, and this is what is going on and that we have to pay attention to this process.

Dr. Dave: You said something about a few hundred years – so are you now embedding this in terms of cultural evolution?

Keleman: Absolutely. When you think about how many years the cortex has been exploding in its ability to symbolize language, and events and behaviour, we're talking maybe fifty thousand years. I'm doing just data that Joe Campbell dated and some of the anthropologists have dated it to slightly before the caves of Lascaux, where you begin to see the first images that people are portraying of reality that they see the animals, but leaving their hand prints on the wall that tell you about authorship. Then you realize that in those years there is an enormous evolution in how we should behave; and how we should behave was not programmed, it's transmitted culturally

and sometimes we don't know how to actually aid that, and that creates difficulties.

You know Marshack, the guy out of Harvard wrote that famous book about the roots of writing (*Roots of Civilization* by Alexander Marshack) and points out writing existed before any language; and the evidence is showing you carvings on ivory about what looks like the lunar cycle – which may be related to menses – before there's any language that we know about that was formalized to talk about it. So he tells you the act of writing is a physical act that took place before there was formalized language, and that's what I'm saying – that the physicality of behaviour has generated the ability to create behaviour.

Dr. Dave: I wonder if you have any reflections about this current moment that we're in, this sort of digital transformation of our lives?

Keleman: Well, I know that it's happening, and I assume that this is part and parcel of a different way of forming the behaviour. Let me put it to you this way, this is just a generalization David, that the human organism has gone from adapting to nature, to some influence over nature – how it controls the environment, or creates environments – and then this adaptation and then adapting to environmental changes, but now creating environments which are more friendly toward us, like cities, to how the organism now is relating to itself, how the organism now is talking about itself as an environment that has to be cultivated.

That really means not on a sort of cortical complexity around muscular movements but that's what's happening, the frontal cortex is rich and able to re-sequence, and make fine motor acts which change the organism's internal environment and its way of being in the world. And you could say then that this digitalization that's appearing so strongly as a quick way of being able to influence your own life has two aspects: one to grow a rich cortical ability to influence the rest of the structure and to form a particular kind of human being, and to relieve the organism's limitation on available memory by creating an external memory – meaning first what was an external memory? Stone tablets were, and now hard drives are and so forth, so that there is more availability for the cortex to create behaviour, and make new memories for epigenetic evolution, internally so that the organism has a different way of relating to a world it's creating inside itself, and outside.

Dr. Dave: OK, very interesting. Well as we wind down I wonder if there are any final points you wish to make, or something that my questions didn't give you a chance to express?

Keleman: Well I hope that I've not been too cryptic, and I hope that I've not been too philosophical, and I hope that I've been practical. An embodied life is an emerging truth about what human existence is about, and that we are in this stage of our life now in a gigantic revolution about what human values are, what human life is about, how humans can live and how they protect their internal environment. This is going on, this is a giant evolutionary step in my opinion, and we are living it – we are in it!

Dr. Dave: There's no question that we are in it!

Keleman: Yes!

Dr. Dave: and Stanley Keleman I want to thank you for being my guest today on Shrink Rap Radio.

Keleman: My pleasure, and I hope we meet again.