

**Waking Up To The Holographic Heart**  
**Starting Over with Education**  
**Joseph Chilton Pearce 1998 Interview**  
Casey Walker, *Wild Duck Review*

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The following conversation took place between Joseph Chilton Pearce and Casey Walker on May 20, 1998 with the production assistance of KVMR, a community-supported radio station in Nevada City.

**Casey Walker: Will you begin by assessing education as we know it today?**

**Joseph Chilton Pearce:** Over the past thirty years I've given some 2,500 talks to thousands of people on these issues, and it seems our whole nation's mental set is too locked into a radical denial over education. I'm pessimistic because of our capacity for denial -- what 14th century Spanish Sufi, Iban Arabi, called "our enormous capacity for self-deception" -- and our simple desire to maintain things as they are. The other criticism, of course, lies in looking at schooling as a concept. I don't think it is at all correctable as it is.

I recently received a beautiful paper from a school teacher who spent twenty-five or thirty years right in the front-line trenches, in the classroom. She gives the perspective that armchair generals sitting back in their ivory towers just don't have. Her title tells it all: "Torch This Tower." She states there is no facet of the American school situation which is at all redeemable and believes we ought to eradicate the entire thing down to the very rock bottom, clear the grounds totally, and rethink what do we do from here. This has been my position for years and years.

If we look at any system and find that it has an error within it, we can address the error and consider the possibilities of correction. But, if the entire system from beginning to end is one whole, integrated, total error, then there is nothing that can be done. There is nothing, zero. That, I believe, is the American school situation today. Nothing can be done.

Further, the school system produces -- as John Gatto claims -- exactly what the system needs to keep itself going, and that is uncorrectable. We can't change institutions. And, we can't give the public an answer to a question they are not asking. People simply aren't asking the questions that everyone is rushing around with answers for.

My one exception would be a Waldorf education, and I think the original Montessori had a lot of great, great value. But, I would champion a Waldorf approach as a true educational procedure. Unfortunately, Waldorf is beginning to modify and accommodate, little by little, and take on some of the dreadful errors of the public school system in order to survive.

In its original, genuine sense, Waldorf is not preparing the child to be a dollar commodity in the marketplace, but is meeting each stage of a child's life with the environment that allows the child to be fully and completely and wholly a child at that time. My statement has always been that the three-year-old is not an incomplete five-year-old, but a complete, total and whole three-year-old. If a child is given all the nurturing to be here as a three year old, they'll be the perfect five year old later on, and so on.

The first thing I would say about any true educational system is that it is not founded on the notion that we are preparing a child for life. The theory we are preparing the child for life, or for the future, is a terrible travesty which betrays every facet of the human being. We don't prepare for life, we equip the child with the means to live fully at whatever stage they are in. The idea we're going to train a child at seven to get a good job at age twenty-seven is a travesty of profound dimension. It makes for a world where every 78 seconds a child is attempting suicide, as is true today. It is this kind of terrible despair we breed in our children when we don't see the difference between preparing and equipping our children to be present to life.

**Will you speak to the neurological damage in modern children, as you've described in *Evolution's End*, which renders them "ineducable"?**

It's been ten years since I wrote *Evolution's End*, and, believe me, the situation today has worsened by thousands of percentile. Most people involved in educational reform are speaking of curricular programs when the truth of the matter is the children they are dealing with now are, by and large, damaged past the point of educability in any real sense. The public has yet to recognize this is so. The clearest indications of such damage recently came out of Tunbingen University in Germany with a twenty year study of four thousand people. It shows three significant findings as a result of the failure to furnish appropriate sensory stimulation for growth. First, there has been an average of one percent per year reduction in the sensory sensitivity of the human system and the ability to bring in information from the outside world. Compared to children twenty years ago, the children we are looking at now are comprehending or registering information from their environment at eighty percent, which simply means they are twenty percent less consciously aware of where they are and what is happening around them. Secondly, the kind of stimulus that does break through the reticular activating system in the ancient reptilian brain, the brain stem, is only highly concentrated bursts of over-stimulation. That is, the only signals they're really bringing in from their environment are those bursts of stimuli which are highly charged. If it's sound, it must be a loud sound. If it's touch, it must be an impact. If it's visual, it must be intense. Subtleties cannot catch their attention because they are not sensitive to their environment. One comparison is that twenty years ago a child or young person was able to differentiate 360 shades of red, and today are down to something like 130 shades, which means the subtleties are lost to the pure, heavy impact of red now necessary to penetrate the reticular system. Once we look into the whole developmental system, the implications are profound.

The impediments to proper development from birth on are attributable to a whole raft of causes -- from technological childbirth, a failure to nurse, day care. Often what occurs is a substitution of proper care with highly inappropriate, massive over-stimulation of non-growth stimuli of the kind a child gets with the average day care, exposure to the television and music meant to pacify and entertain him or her.

## **Has an actual, physical atrophying been documented?**

Yes, it's a physical atrophying of the whole sensory system. This is right in line with Marcia Mikulak's work that I wrote about in *Evolution's End*. Fifteen years ago, she found there was anywhere from a 20-25% reduction in sensory awareness of the technological child as opposed to the pre-literate, or "primitive" child in the grass shacks of the jungles.

The third finding of the German study is that the brain is maladapting on a level which seems almost genetically impossible. That is, the brains of these young people are not cross-indexing the sensory systems, so there is no synthesis taking place in the brain. Sight is simply a radical series of brilliant impressions which do not cross index with touch, sound, smell and so forth. There is no context created for sensory input, each is an independent, isolated event. It explains why so many kids get intensely bored unless they are subject to intense input.

On hearing a certain sound, it doesn't bring up all sorts of memory patterns and other senses that resonate with it. They are single shot affairs in the brain system. All of this is from the failure of appropriate stimuli and the massive over-application of inappropriate or high level, artificial stimuli. Now, Jerry Mander and I just spent a weekend in New England at a conference with a medical doctor, Keith Buzzel, studying the effects of television and computers. There is simply an unbelievable amount of medical research on the neurophysiology of television viewing that shows a serious breakdown in the whole genetic encoding. Bruce Lipton, a cellular biologist and brilliant man, has pointed out that the internal emotional state of these children is radically altering the whole DNA structure.

So, I can't talk about education, the future and so forth, unless I'm willing to deceive myself about the halt and reversal of damage now being done to the majority of children in the first three years of life. If we could just get that across! Appropriate nurturing in the first three years of life is critical. Of course, there are always a small number of people who are aware and trying to do something about it, but most err in trying to change institutions with hundreds of billions of dollars of vested interest in the television industry, in medical technological childbirth, and all the rest of it.

I was in Thailand last year at a birthing conference put on by the World Health Organization and UNESCO. Thailand imported our American way of birth and television about thirty years ago, and they are now in complete shambles -- their family structure destroyed, their schooling in shambles, their whole social structure collapsing. They were once called, "The Gem of the Orient, The Land of the Smiles." Few will look at the fact that Thailand imported our two deadly twins of medical technological childbirth followed by television, both of which deny appropriate sensory stimuli for growth and substitute the radically inappropriate stimuli which brings about a totally conditioned mind. Huxley's *Brave New World* was timid, a lollipop, compared to the type of conditioning that comes with interfering with the natural processes of a mother, child, and community.

So, these are the three issues. First, we have to realize that education really begins in the womb and that the first three years of life are when ninety percent of it takes place. Secondly, never waste effort or energy on trying to bring down institutions, but put every bit of effort and energy into doing what must be done for as many children as can immediately

be reached. Look to the tangible and real need in a child, in a family, or in a neighborhood.

**Let's turn to the idea of intelligence -- what we are yet to understand -- with a systemic function between the body, the heart, and brain.**

Yes. To me, the most exciting single thing happening -- which I touched upon in *Evolution's End* throughout the whole last part of the book -- is about the heart. The medical and scientific world is just now producing evidence to verify much of what I explore through my last three books: the intelligence of the heart. Hard core researchers, including the National Institute for Mental Health, have massively ignored these questions.

I thought I had put it together pretty well -- what the heart actually was and what was going on -- but I was a babe in the woods. I knew nothing. In 1995, I came across the Institute of HeartMath in Boulder Creek, California, and found that they were gathering together research from all over the globe. They brought me up to date on neurocardiology, which is the general title of the newest field of medicine. Oxford University brought out a huge, thick volume of medical studies from all over the world entitled, *Neurocardiology*, which includes studies that haven't worked their way into the journals yet. Discoveries in the field of neurocardiology are, believe me, far more awesome than the discovery of non-locality in quantum mechanics. It is the biggest issue of the whole century, but it's so far out and so beyond the ordinary, conceptual grasp, that a lot of the people doing the actual research are yet to be fully aware of the implications.

Close to a century ago, Rudolph Steiner said the greatest discovery of 20th century science would be that the heart is not a pump but vastly more, and that the great challenge of the coming ages of humanity would be, in effect, to allow the heart to teach us to think in a new way. Now, that sounds extremely occult, but we find it's directly, biologically the case.

I can't in a brief time share with you the full implications of neurocardiology except to say three things. First, about sixty to sixty-five percent of all the cells in the heart are neural cells which are precisely the same as in the brain, functioning in precisely the same way, monitoring and maintaining control of the entire mind/brain/body physical process as well as direct unmediated connections between the heart and the emotional, cognitive structures of the brain. Secondly, the heart is the major endocrine glandular structure of the body, which Roget found to be producing the hormones that profoundly affect the operations of body, brain, and mind. Thirdly, the heart produces two and a half watts of electrical energy at each pulsation, creating an electromagnetic field identical to the electromagnetic field around the earth. The electromagnetic field of the heart surrounds the body from a distance of twelve to twenty-five feet outward and encompasses power waves such as radio and light waves which comprise the principle source of information upon which the body and brain build our neural conception and perception of the world itself. This verifies all sorts of research from people such as Karl Pribram [+ , ++] over a thirty year period, and opens up the greatest mystery we'll ever face.

Roger Penrose, for instance, in England, has just recently come out with a new mathematics to prove that where dendrites meet at the synapse -- of which you've got trillions in your body and brain -- is an electromagnetic aura. And, we find that the electromagnetic field of the heart produces, holographically, the same field as the one

produced by the earth and solar system. Now, physicists are beginning to look at the electro-magnetic auras as, simply, the organization of energy in the universe. All these are operating holographically -- that is, at the smallest, unbelievably tiny level between the dendrites at the synapse, the body, the earth, and on outward. All are operating holographically and selectively.

The next discovery is of unmediated neural connections between the heart and the limbic structure, the emotional brain. Now they've found that neural connections go right on up through the amygdala or the cingulate cortex into the pre-frontal lobes. Now, the pre-frontal lobes, or neocortex, are the latest evolutionary addition to the human brain because they were only rudimentary until, perhaps, 150,000 to 40,000 years ago. They are what we call the "silent areas" of the brain simply because we are using only the lower part of them so far. The higher parts of the pre-frontal lobes are not even complete in their growth patterns until age twenty-one, which is about six to seven years after the rest of the brain is complete -- when we thought the whole show was over.

And yet, if you look at Demasio's recent work in *Descartes' Error*, he writes about the role of emotion in reasoning and about the lowest levels of the pre-frontal lobes. He talks constantly about the pre-frontals being the whole show, but he's talking only about those parts that are developed in the first three years of life and the great, long dormant period following. Around age fifteen, the pre-frontals undergo a huge growth spurt and begin a massive, rapid growth which isn't complete until about age twenty-one. It is that area that then remains silent and unused.

At twenty-one, Rudolph Steiner said the true ego is designed to come down into the system and begin what he called the exploration of the higher worlds. Now, of course, that hasn't happened historically because of the entrenched positions of the lower structures of the brain system itself (which means that the entire thing is biological). We resort to philosophical concepts and moral, ethical issues -- but we're really always talking about the biology of our body and brain.

Even Paul MacLean at the National Institute of Mental Health, who is one of the brightest in brain research over the past fifty years and is still doing research in his eighties, spoke of the pre-frontals as the "angel lobes," as the origin of all the higher human virtues. That is exactly what Demasio was pointing out in *Descartes' Error*, and yet both are only talking about the lowest of the pre-frontal structures, which complete themselves in the first three years of life, and not of the new growth that takes place between fifteen and twenty-one.

For this reason, I am the arch-optimist of all. I think these discoveries, the implications, are terribly exciting. Of course, our whole cosmology will shift dramatically when we realize what I call the "holographic heart." But, you see, at the very time we're moving into a period of total chaos and collapse, this other incredible thing is simply gathering. I think of Ilya Prigogine's comments that so long as a system is stable, or at an equilibrium, you can't change it, but as it moves toward disequilibrium and falls into chaos then the slightest bit of coherent energy can bring it into a new structure. What you find in Waldorf families, and people who read *Wild Duck Review*, and others, may seem small, but they will be the islands of coherent energy which then bring about the organized, entrained

energy for a new situation. I think it will happen very rapidly.

**In the next issue, I expect to work with the idea of one's capacity for metaphor as one's capacity for a full life.**

Jerome Bruner once said the great beauty of human language is its metaphoric capacity . . . that we could represent the world to ourselves metaphorically, mutate our metaphors and change ourselves in the world. Bruner came up with that very beautiful and brilliant insight thirty or forty years ago.

There is a book by a medical doctor living in Seattle, Leonard Shlain, called *Art and Physics: Parallel Visions in Space, Time and Light*. In it he says art is always presaging what will happen in the whole scientific, social world. He gives the most incredible defense of this idea over the past 600 years -- how art has always shown exactly what will happen in the scientific and social structures a century later.

The great Margaret Mead once said, "No education that is not founded on art will ever succeed." I think the beauty of the Waldorf system is that they don't teach art -- it's not a subject. Art is the way by which everything is taught and learned. Art is "high play" and only through high play does real learning take place. Yes, this is the way to a real life. The rest of it is conditioning to another's employ, another's motive, another's idea of life.

Joseph Chilton Pearce is well-known as author of six books: *The Crack in the Cosmic Egg*; *Exploring the Crack in the Cosmic Egg*; *Magical Child*; *Magical Child Matures*; *Bond of Power*; and *Evolution's End*.

Also well-known as an exceptional public speaker on human intelligence, creativity, and learning, Pearce has presented over 2,500 programs to date at most major universities in the United States and various institutions worldwide. His most recent addresses have been as a participant in a closed symposium on computers in education, U.C. Berkeley; in a closed symposium on educating for healthy children, Columbia University Teacher's College; at a conference on education in Bangkok, Thailand; and two addresses at a medical conference on birth-bonding in Chiang Mia, Thailand, sponsored by W.H.O. and UNICEF.

All of our perennial philosophies, spiritual paths, religions, dreams and hopes, have spun out of an intuitive knowing that these higher intelligences exist, that life is more than just an economic knee-jerk reflex, that we are not just glorified Skinner-box pigeons or naked apes. On the one hand we have divinized our potential, projecting who we are designed to be onto an abstracted cloud nine rather than fulfilling our evolutionary potential, and falling victim to the politics of that projection. On the other hand, and far more destructively, we have denied our evolutionary nature, grounding ourselves in the more primitive, physically bound modes of our brain/mind, and subjecting ourselves to the magician-priests who can best manipulate that physical realm. *Evolutions End*, pp. xv-xvi

Split between these lower and higher neural systems, with evolution pressing to break through into its new modality, our situation can get precarious. Our personal awareness, with its ego-intellect, makes up an estimated 5 percent of the total intelligent energy of our brain/mind. (The rest provides the environment and maintains the conditions of, this personal 5 percent.) Yet with this paltry percentage we try to manipulate universal forces of unknown magnitude and then wonder why everything goes wrong. Over and again we hear the clarion call that we must take evolution in our hands and do that which bumbling nature, in its fifteen billion years of incredible creation, has obviously not had the intelligence to do. While the ego-intellect loves such arrogant, bootstrap nonsense, operations of this sort plunge us from one personal, social, and ecological catastrophe to another, and we are apparently incapable of catching on to our error. As architect Henry Bergman once said, "Each and every problem we face today is the direct and inevitable result of yesterday's brilliant solutions." *Evolutions End* pp.xvi-xvii