

M. It is a pleasure and a privilege to be with Joseph Chilton pearce. Joe has been writing and speaking about human development all over the world and for many years. He is the author of numinous books, including his national best seller The Magical Child.

The Intelligence of Play

1. Joe, I have been using the phrase "the intelligence of play for many years. What is the relationship between play and learning?

J: They are certainly interdependent. You can't have real learning with a child unless they are playing. Real playing is how real learning takes place. You can have conditioning and a Pavlovian conditioning of his dogs, or behaviors modifications through other means which we look on as very serious, and we generally call learning, but it's not learning. It's conditioning.

Real learning takes place by what Maria Montessori would call the absorbent mind of the child. Simply absorbing their universe, absorbing it, becoming it, and they do this through play. Play can be the most serious undertaking of a child's life. It is the most serious undertaking. They are completely entrained in play. Mind, the three parts of the mind; thought, feeling, action, the body, every aspect of the child's self entrained solely focuses totally on the activity of absorbing their world. Absorbing their environment. The most serious active to their life because they're literally building their construction of knowledge of the world, of themselves, of the relationship between the two and laying down all the foundations for the later forms of intelligence. And in all of that, play is the activity itself. So you have those two things. What we think of as learning is conditioning, training is conditioning, but real learning is that stage of play. We have to interrupt the child's real state of learning or play in order to bring about what we think should be their training and their conditioning.

School

2. If the state of play is the optimum state for learning and performance, what's going on in school, which if far from playful?

J: Schools are set up for conditioning. There are certain aspects as a child we want to train to respond in certain ways through schooling. This is all part of conditioning, behavior modifications. In each case we must interrupt the child's real learning process of play in order to bring about these conditionings which we think they should have. So our entire schooling is set up largely on conditioning rather than learning in the only way the child can learn, which is through what we as adults interpret as play. I think is one of the reasons we find a very small percentage of retention of the conditioning we think we're giving our children through, I remember the Carnegie Institute famous statement back in '63' even, way back then, that child seems to retain only 3-5 percent of the total information or conditioning modifications we're trying to bring about. About 3-5% retention, whereas that which is learned in a state of play is literally built in as a permanent mural patterning in the brain which they never loose. If we could just recognize the direct correspondence between play and learning and the dramatic difference between that and conditioning and by simply shifting over I think our entire

schooling can be extremely successful and produce say 95% retention. But it would have to be within the frame by the way by which nature has set up the learning process in the child.

Conditioning

3. We have what you are calling "real learning" which occurs in the state of authentic play and we have training, conditioning, behavior modification. Is there a place for both?

Well first we have to recognize there are ways in which we must employ conditioning with the child, right from the very beginning. There's no doubt of that. Particularly in the modern world where many things have to be off limits to that child. They have to learn that there are certain ways they can move and certain ways they can't because they'll be killed, it's just simply not safe. So this is conditioning and there are certain times when we're gonna have conditioning of the child, that's obvious. But on the other hand, for the child's real openings and all, they must have that world of play established by the adult establishing that safe secure space with them. If we mistaken these two, if we get them mixed up and we're not aware of the child's need for the play exercise, as well as the conditioning. If we try to make the play the conditioning, or if we try to condition play, than we're going to mess up the whole neural development itself. If you look at the world of the child as a dream, around 3 or 4 when they're beginning to be able to come into dominion over their own structures of knowledge about a world, self, and language and all inside themselves and want to create these inner worlds and then play them out in their own private worlds. This is a private world. But here we're worried about the child being socialized and we think they should all be crammed together to learn to play together, but they don't play together. Each plays in their own private individual world. If they might all have to be sharing the same physical space, but they're not sharing the same mental world space at all.

And then if we take the conditioning of schooling and interfere with that early period, making them sit at desks, conditioning their bodies not to move when all learning is sensory motor at that period. It requires movement of the body. All play, all movement, all learning of the child from that 4 to 7 period is verbal. They talk out their world all the time. They're always speaking to themselves. That plays a critical part in the whole thing. And suddenly we're making them sit at desks to attend abstract metaphoric symbolic structures restricting their body movement, and we're conditioning them. We're trying to condition that mind. Modify those natural behaviors on the part of their adult ideas. Then obviously you're not going to have the foundation laid for the very thing you're after later on, and their ability to handle very abstract metaphoric symbolic structures. The same thing with all the stages of play that I can see. We've taken a later adult concept and tried to inflict it on the child or impose it on the child out of appropriate age consideration, which then becomes conditioning and blocks the natural unfolding and absorption of their universe as designed by nature during that period.

Age 1-4

4. The state of play with is curiosity and wonder remains the same. What changes is the type of activity which is appropriate for each age. Let's start at the beginning.

J: If you look at the period say from 1 to 4, imitation plays a critical role in it. Imitative play. They look out and they see their parents or their models doing certain things, they want to do the same kinds of activity within their own world. A great deal of metaphoric, symbolic learning takes place through that, the little child picking up one object to represent something else in the adult world. The little jar top becoming the mixing bowl that the mother's using. The little spool of thread becoming the automobile the father's driving, or whatever it might be. Representational objects, that metaphoric thinking, symbolic thinking all to imitate within a small world that they can control and monitor and manage the great huge adult world that they're preparing themselves for. So this is imitative play which is the foundation for metaphoric symbolic thought that we use in abstract languages, mathematics, and chemical formulas and so on. But then you have a shift around four, what I call the child of the dream. The great period of intuitive thinking begins and the creation of internal worlds no longer just imitative, but now you're using the world you've got established to move within and create other worlds of your own making. We speak of the child's dream and their play is quite different from the earlier child.

Age seven to eleven

5. OK, let's move on to the next major stage. How does the play activity change?

J: But now at age seven to eleven, they want to make things. They want to take their actual, physical living world take an internal idea and change the physical world with it. Such simple things making cookies, taking a lot of different ingredients, mixing them together, doing a certain thing called heat and it comes out radical transformation. Here is the marvelous thing called cookie from these totally inert ingredients. Play of this sort, along the lines of making things. All art is a form of play in this respect.

Imagination & violence

6. What you are describing is imagination and how developing the capacity for imagination literally changes how we relate to the world. What happens if this capacity to imagine is not developed or is retarded?

J: Swedish Pediatric groups are the first ones to come out with the statement that the child with imagination doesn't resort to violence because they have an almost endless alternate number of scenarios within that they can play out which they then know will have some affect on their external world. Whereas the child without imagination is subject to the instant real time of direct sensory input. And so that direct sensory input isn't in any way threatening or demeaning, they have no choice except to try to cut off the source of the input. Whereas the child with imagination can modulate or moderate these lower immediate defensive mechanisms with the higher imaginative ones that go on in the neocortical structure by which we can moderate the lower. And again it gets back down to the simple thing of representing the spool as the road roller, or the steamroller or the automobile, or something of that nature. The image that the child has in their mind that isn't present to the sensory system, what we call imagination, an image created within, not present in the sensory system, which they then take and project on the direct sensory object of the spool. And through that, they moderate or

modulate the sensory object of the spool and see it as standing for the road roller, the automobile, or whatever it might be, and they want to play that for hours and hours. Later on, these very low sensory inputs of the drive for survival, protection, etc., can be moderated or modulated by the same higher cortical structures which create the internal image and project it on the external and change it in nature of the internal. So if we don't put those structures, those abilities or capacities which nature is expecting in at their appropriate stage, than later on there's not align, no ability for metaphoric symbolic thinking as found in number systems, formulas and all the different languages we use, but no way to moderate one's own behavior.

Play & Learning

7. It has been said that play must be learned and that a child not played with can't play. What do you think this means?

J: So long as we remember when we use the word play, we're talking about nature's means for learning. So when we say the child not played with cannot learn to play in affect, the child's learning is seriously impaired. So later on when they're exhibiting all these extremely violent behaviors and so on, we can say that they did not learn. By learning we mean opening and developing higher cortical structures which can moderate or modulate the lower evolutionary structures of the brain. Just that simple. That just didn't happen with them because they weren't played with. Play didn't take place. Play being the learning and the learning being the opening of those blocks of intelligences which are literally genetically encoded in these particular topographical areas of the brain in their respective order as they appear on the evolutionary scene. This doesn't happen. And then we turn around and condemn these people for moral ethical failure when really we're simply looking at very pragmatic, very common sense kind of biological failure. Just as if you don't water a plant, the thing isn't going to grow. Well we're not watering that intelligence at the appropriate year, and it can't grow.

No safe place

8. What happens if children are surrounded by adults who don't play and don't create safe places for children to play?

J: Well the reason that the child, that the adult must establish with the very earliest child the play stance, which the child is looking for all the time, and picks up from those cues very quickly, is to let the child know now there can be no error. That this is a safe space in which this learning can take place. And later in the child of the dream, that four to seven year period, the long periods of, but apparently are empty eyed staring and vacancy on the part of the child is they're moving into the inner world of their own creation, their ability to create inner scenarios. They then project them on their external and so on. That gives them a safe world. It's their own creation. They are not going to create a world which is self-defeating. They're not going to create a world in which they will make error and be punished or anything else. So the creation of these internal processes, internal worlds, which means development of neural processes in the brain. We know it actually expands the neural structure, the neural process of the brain must grow, establish new connections and so on to accomplish this kind of activity. And in all

that they're in a world in which they can't make error, in which there's no judgment of any sort because they're simply constructing, they're building. In building a structure like that, judgment doesn't play a role, right or wrong doesn't play a role. There is no wrong. There is no error in the world of play. Just at there's no time in the world of play. In the earl child, later on this changes dramatically. Later on all these observations change dramatically, but in this early period, there can be no possibility of error, judgment, criteria, or anything else. The child is simply impossibly driven to that which nature has already programmed him to do, which is simply to become these intelligences, absorb them, employ them, act them out, establish them.

More on competition

9. Are you saying that organized group activities, sports and competition aren't natural?

J: Well first we have to recognize there are ways in which we must employ conditioning with the child, right from the very beginning. There's no doubt of that. Particularly in the modern world where many things have to be off limits to that child. They have to learn that there are certain ways they can move and certain ways they can't because they'll be killed, it's just simply not safe. So this is conditioning and there are certain times when we're going to have conditioning of the child, that's obvious. But on the other hand, for the child's real openings and all, they must have that world of play established by the adult establishing that safe secure space with them. If we mistaken these two, if we get them mixed up and we're not aware of the child's need for the play exercise, as well as the conditioning. If we try to make the play the conditioning, or if we try to condition play, than we're going to mess up the whole neural development itself. If you look at the world of the child as a dream, around 3 or 4 when they're beginning to be able to come into dominion over their own structures of knowledge about a world, self, and language and all inside themselves and want to create these inner worlds and then play them out in their own private worlds. This is a private world. But here we're worried about the child being socialized and we think they should all be crammed together to learn to play together, but they don't play together. Each plays in their own private individual world. If they might all have to be sharing the same physical space, but they're not sharing the same mental world space at all. And then if we take the conditioning of schooling and interfere with that early period, making them sit at desks, conditioning their bodies not to move when all learning is sensory motor at that period. It requires movement of the body. All play, all movement, all learning of the child from that 4 to 7 period is verbal. They talk out their world all the time. They're always speaking to themselves. That plays a critical part in the whole thing. And suddenly we're making them sit at desks to attend abstract metaphoric symbolic structures restricting their body movement, and we're conditioning them. We're trying to condition that mind. Modify those natural behaviors on the part of their adult ideas. Then obviously you're not going to have the foundation laid for the very thing you're after later on, and their ability to handle very abstract metaphoric symbolic structures. The same thing with all the stages of play that I can see. We've taken a later adult concept and tried to inflict it on the child or impose it on the child out of appropriate age

consideration, which then becomes conditioning and blocks the natural unfolding and absorption of their universe as designed by nature during that period.

No safe place

10. What happens if children are surrounded by adults who don't play and don't create safe places for children to play?

J: If they can't trust the world they're supposed to embrace and become, there is no way they will be able to build a structure of knowledge of the world as it is. They will look at the world in affect as the enemy and they will build a defensive structure to protect themselves against it. This will literally reduce their sensory intake from that world dramatically, just as our anxiety ridden children suffering psychological abandonment and so forth, have a 25% to 30% reduction in sensory intake over children who are given total nurturing, emotional nurturing which means provided with a safe space. Maria Montessori speaks of the child coming into the world as an absorbent mind, ready to expand out and embrace the universe within them, these genetically inherited capacities. If the world damages them, if they're not given the safe space but are damaged or traumatized, they close up into a tight defense against a world they can't trust. So you're going to get an entirely different structure of knowledge of a world, a much impaired neural development and an impaired interactive ability, the child will not be able to interact with his world because they will be defending themselves against it all the time, against a world they can't trust.

Athletics

11. Let's talk about the middle child, the six, seven and eight year old and how this period is explodes with a new level of physical activity.

J: All the body processes are largely milenated and they can begin to control their body in ways they could never do before. That's why you find the 6 to 7 year old period times of intense physical activity of a new level. The little girls who will skip rope for 10,000 consecutive times if they can. The little boys running at breakneck speeds, wanting to climb every high tree and do all sorts of incredible physical things with their body, coming into dominion over their body. Any kind of interaction they do with each other all has to do with this coming into dominion over their own body. This new relationship with their body that they're having during that entire period which they're also relating to their society and social, their social models are beginning to play a critical part, and operational thinking that we talk about and they want to deal with the actual physical world and change it in ways according to their own abstract thinking. Now if you take sports, a competitive sports and interject it into this stage, it's not natural to the child and the child will essentially resist it, except if it's the model given for them to act out by their models to society and parents combined, then you've got an overwhelming pressure on the child to conform at the expense of the intelligences that are supposed to be developed during that period. We're going to be restricting that to a certain limited form of actual movements that will win applause or failure.

Social models and changes

12. Joe, how does play change and serve the child at this age and stage?

J: Again we have to realize that one of the major models that we're shifting into from the 7 to 11 period is away from direct family to the larger family of society and how to interact with that society in socially cohesive form of behavior which coheres into a society, into a group of cooperative people working for certain specific safe secure boundaries in their world. That's the big one. What we call the social ego appearing at that time. Play serves that. At the same time we have our coming into dominion over our own body and are wanting to play with this new instrument called the body in the world. All of this is the play inherent in that period. And all of that, for that learning to take place, they must have a safe secure reduced world, a modified world, a bounded world in which they can make no error, in which error is simply eliminated as a factor. That is, to truly socialize and become a part of the social cohesive force, error must be eliminated. They can't have error in that. Right and wrong, or win or lose plays no part in nature's scheme. It's to learn to socialize and mix and cohere and so on together. The same thing with the expiration of one's body and all the rest. You must have an error free environment in which this can be done. Now to take a highly stylized, rigid specific form of action in which winning and losing is everything, everything, in which sensor plays a heavy role, in which error dogs the child at every single breath and put it into that period and say this is going to make them part of a social team is ridiculous. They will end up largely crippled in their ability to cohere as part of a social group because it's wrong with possible error, possible failure on every hand. And competition, as any organized sport is like that, it's always competition. One competing against the other. At this stage is simply completely out of keeping, it's inappropriate to the stage of development itself. A child only their own, naturally, will never play in that fashion. That isn't play again. When the minute we come in with organized sports, with adults calling the shots, the rules and regulations, doing all the training of the kids, you have conditioning. You don't have models. The adult is not modeling. The child is not following the adult model. The adult is conditioning the child in certain forms of behavior. From that kind of intervention or interference, the natural intelligence of socialization in it's first form is not going to unfold. Operational thinking is not going to unfold.

Athletics

13. Competition implies winning and losing. Losing isn't safe. By this definition competitive activities, sports isn't play.

J: There simply were no games of that nature in the 7 to 11 period. The play we did was let's pretend, let's pretend this, let's pretend that, playing cowboy and Indian, or any of these games, or war, whatever the games were we were playing, which were group activities, but always this let's pretend inside, projecting it on the external world. Organized play such as teams against other teams or competing against other teams crop up somewhere around 11. There's no doubt of that. If you just watch as the child before that period will be playing other forms of group activity, but not competitive. The competition comes in around 11 or 12 as a pre-puberty and puberty form of activity. You can't keep children from that period, from grouping together in some form of

competitive activity. They'll create their own sports. You'll find it in very primitive societies, what we think of as pre-liberate societies. The children of that age began to divide off and compete. Before that they don't because it plays no part in the natural agenda of building their world structure. And around 11 or 12 it's going to start and play more and more of a role because you're moving up into the whole gene pool activity of competition, your males, the winner and the hierarchy of losers that forms around them. That's a natural part of the system. But if you try to impose that prematurely, then you're acting very inappropriately to the whole development of the child.

Socialization

14. So it is quite natural for young people to band together, organize activities, make up rules. I remember the neighborhood pick up games. But that is all gone. Now adults do all the organizing.

J: When we moved in, first of all on that play period of the sandlot baseball, sandlot football, and so on and so forth with adults and organized it in little leagues, then of course we upset the entire purpose of it with children. We just would spontaneously get together, spontaneously form sides, spontaneously compete, form their own rules and regulations. Only by forming their own rules can you have a game. A game is simply acting out the boundaries set by rules, unless the rules are agreed upon, then they're no boundaries for the game, there can be no game. And young people work all that out on their own. It's allowed. And that's the critical part. Now you're getting very specific in your socialization. It's very generic from 7 to 11. Now it becomes extremely specific. We're going to even hammer out our rules and regulations for getting along together in this competitive period we're going through. So you take adults and they come in there and they make all those rules and regulations. They do the setting up of the teams and so on, you've literally wronged from the young person, their capacity to spontaneously form more specific rules regulated social structures. But then two more things happen. You take that very same idea on the part of the adult and impose it on the 7 to 11 year old child, in the operational stage, when they're in their generic global social stage, you're going to impose this much later stage on them from an adult standpoint. So now they're doubly damned in effect. The final part of it is that the adult, they're actual role models, coach that you're counting on, who's become father in affect, becomes the seven million dollar a year professional TV player. They've become the model. So you've abstracted out of any concrete reality an almost impossible to obtain kind of a superior non-real kind of a model and that then begins to become the dictate right down the line to the 7 years olds.

Safe place

15. We tend to forget that real play is how real learning takes place. Games are learning experiences, building capacity. What are we learning when the games we are playing aren't safe?

J: Safety or security, what we call as the safe environment in which we learn is so critical because if you're not safe, if you feel under sensor of any nature at all, then you have to use part of your energy to defend yourself, to be on the lookout for those cues

that are attacking or threatening. And at the same time, try to open up and embrace a whole new mode of action. Now when we speak of concentration or entrainment, where all the energy can focus on a particular activity so that we can learn it throughout our whole body, we know the whole body learns in all cases, but if part of us has to be on guard against being unsafe, or open to sensor, punishment, retribution, any of those things that we find in competition or adult ideas imposed, or even having to measure up to standards, then we cannot entrain, which means thought, feeling, and action, the three levels of the brain, can't entrain on a single activity. We're going to be thinking well I'd better do this. We're going to be feeling I might not be able to and I'll catch it, I'll be a failure, I'm a loser, I'll be punished, I'll be ostracized, and the body which has its own wisdom, unable to integrate the energies it needs to go ahead and act accordingly. So we're a house divided against ourselves and there's no health in us, there's no holiness in us. As a result, no concentrated learning can take place.

Entrainment

16. This entrainment you just described is all about attention. It is so clear that for concentrated learning to take place we need to have coherent attention, and not be a house divided.

Just bridge that over to the fact that the greatest complaint about our children today is that they can not concentrate. They can not possibly concentrate so much of their energy has been used to defend themselves against a world they can't trust. Or a world they feel they are in competition with. If they are in competition with their world, they can't trust the world. If they can't trust it there is no way in the world that they can move into it with focused and entrained energy.

Safe place

17. So feeling safe is the prerequisite for concentrated learning right from the beginning of life. Describe how having a safe place to learn affects how we learn.

J: In order for all the development to have unfolded up to that point, they have to have been given the secure environment, the safe space that the parent, and then the society itself is a safe space. So that then when they hit the period of competitiveness which is natural, that's simply as natural a part as their dream like mode was from 4 to 7. So they meet that of course then with great delight because that's what the system is expecting. Nature's agenda calls for that as we approach puberty and adolescence and so forth to unfold, and then it will be met with great delight. They can enter into it with a full focus of attention. They will not interpret this threatening, but as a chance for their own development of that skill during that period. And the development of that skill depends on another to pit your skills against, in effect. And so they look forward to that. They'll automatically, naturally create it, if not given it.

Whereas the child who is from the beginning denied a safe space, and who's having to divert a great deal of that energy to try to set up a defense system against a world they can't trust. Then at each of these periods it's going to fall into the same knee jerk reflex. They're simply going to try to defend themselves against each new stage of

development that opens up. So when it comes to competitiveness, they're not going to going to be competitive within any of developmental way. There will be no growth through it. It will simply be the necessity to create even deeper more ingrained defense patterns against a world which they now really can't trust because it's moving against them competitively which they have to interpret as threat.

18. The goal of competitive activities is to come out on top. To win. How does winning fit into nature's development agenda.

I don't think that child, until that formal operational stage comes in about eleven or twelve really thinks in terms of winning or losing. That is not a natural process at all within the child. Winning and losing would be a premature puberty kind of activity and would indicate a real defense system, a child really on guard against a world they can't trust. And certain actions they have to do, they will win, which means they are in a safer space, or if they lose, they lose even the safe space they have. And you can get a awful lot of activity out of a child that way. You can drive to some real extremes over it, but it won't be developmental. It won't give you the foundations for the kind of capacities you are looking for.

19. In a competitive environment there is a strong belief that earlier is better. We tend to believe that we must start our children early if they are possibly going to make the cut latter on. What does this do to the overall development of the child?

J: We have our little children who at three and four are given a tennis racket and over and over again hit that thing. They have their coaches. And the parents are applauding them, giving them all the laurels. The safe space with the parent is established by pleasing the parent. And so all their entrainment, everything is going to go into to that. But there is nothing in the natural agenda of developmental about that. This is why so often very precocious children arriving very early in a certain activity burnout quickly. Because there are no overall, fundamental structures underlying that kind of activity. They are deficient in a lot of ways must dealing with the world itself. because everything has been specific before the generic stages are gone through. There electing to be the best pilot in the world at age seven or the best that or that will always be a living out of a parent's expectation or a coach's expectation, as the case might be. But it can't be self generative. i has to be the need for the safe place being established by winning that kind of approval that they will do that.

Back to ages and stages

20. We come back again to ages and stages. The environment or activity must match the developmental stage. What happens to development if we prematurely introduce an activity appropriate for a later age during an earlier stage.

J Well I think that's everything we've talked about everything the whole morning. The main thing is to allow the developmental stages to unfold as they are and then you'll find that you can't keep the young person from employing the kinds of competitive skill testing which they need at that stage of the game. And if you take that and enforce it on the child earlier, again you rob them of their safe space for learning and they're not

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going to be able to develop into that free exercise of testing their skills with each other. You'll undermine the very capacity you're trying to get later on if you bring it in at the inappropriate period. I think the little league of course is a disaster, in every sense of the term. It has not worked. It has not given us happy well-adjusted children. I just the other day had an example of a parent with their child in a little league and the coach raving at them. These were 7 and 8 year olds and the coach a great big of course coach type railing at them, calling them dumbbells and imbeciles and urging them to get in there and really put their all into it and so forth and the confusion, the utter confusion of the little children and their feeling of shame and guilt and failure and so on. And the parents all lining up on the side of the coach so that the children were literally parents the failure to measure up to the expectations and standards of their coach. Now this is a very strange form of modeling for this here child. These are their social models already condemning them and they don't even know what for.

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