

Web-Based Radio Show


Emotional and Intellectual Development: Two Sides of the Same Coin

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Welcome to our Web Based Radio Show. Today is December 19, 2008. Our show today is going to focus on early childhood education. Many of the listeners and readers, I hope are aware of the Obama President-Elect administration's desire to pump ten billion dollars into our educational system. The real question is, that I would like to try to answer today is, what should be the goal and how to focus this additional funding, and how to, on the one hand, how to promote healthy intellectual, emotional, and social development, and on the other hand, make sure it doesn't get flittered away into programs that aren't building or contributing to the building blocks for the kind of adults we will be needing to keep the world safe and productive and progressive in terms of how we all work together as peoples and how we all discover even more advances in not just new technologies like computers but also in the way we relate to one another. In order to do that, we all collectively need a framework for what are the pathways that will lead to truly successful education.


We should start off with defining the goal of education. The goal of education should be the ability to think and use that ability to master all the knowledge that we have traditionally imparted to our children and we want them to be able to move the world along in the future. The first principle is that intellectual development and the mastery of the knowledge that goes along with it stems from thinking and reaching the most advanced levels of thinking. This means the ability for reflective thinking; to be able to evaluate your own thoughts as well as, sometimes, the feelings behind them. The reflective individuals are the ones that will help the world make wise choices, whether it is in financial investments, whether it is in new discoveries of technologies or new discoveries that lead to new scientific advances, or better ways for peoples to relate to one another. This requires a high level of thinking that we have termed here as reflective thinking. But there are steps that lead to reflective thinking. It won't just happen by offering more early intervention to infants and young children or more of enlightened



preschool or better programs for children who need a head start; programs like Head Start. This framework or roadmap or pathway we are talking about has many steps to it. By identifying these steps we can identify the kind of individuals we need to have to be our “teachers and mentors” and identify the elements in a truly comprehensive and meaningful approach to education.


The first key point that needs to be made is that education and the way we are going to conceptualize it, begins prenatally with mom – the future moms – taking care of themselves well. So it involves not just typical or traditional OBGYN care but education, perhaps beginning during the school years about what healthy development is about and what the building blocks of a healthy brain are about prenatally – so the proper nutrition and diet, the proper avoidance of substances that can be toxic – either alcohol, drugs, cigarette smoking, the proper emotional climate – how to create supportive climates rather than ones that are stressful for the carriers of our future generations. For example, teenage moms who have little support at home and are under a lot of stress and are experimenting with drugs or alcohol may not have the maturity to provide that good home for their babies as much as they want a baby with a healthy brain to start off life. What goes into good prenatal care and good prenatal nutrition, behavior, and optimism rather than stress, are well known and need not be repeated here. The only thing that needs emphasis is how best to create the atmosphere. Here, I think it is education starting at young ages – certainly by high school and certainly in college. So, individuals don’t go into the practice of having children and rearing children without preparation.

The second point is that there needs to be preparation for the responsibilities for parenthood. The ingredients for good child care – that too we have to start teaching certainly by high school and in college. An example is two very bright individuals who get married, one being a neurosurgeon and the other being a busy lawyer and both getting home not until 7:30 at night and not being aware in their decision making about wanting to have a baby, the career choice they want to make, if they want to have babies in the family as part of their preparation for having a baby and taking care of that baby. In a book called, *The Four-Thirds Solution: Solving the Childcare Crisis in America Today*, I talk about each parent working 2/3 time or if only one wishes to work full time then one can work ½ time but leaving at least half the day or in the 4/3 solution, leaving 2/3 of the day for parental care. Growing up only in group care such as daycare is not the ideal setting for babies. Lots of studies are now showing some of the risks – one of the more impressive ones shows that there are higher stress levels in very young children in full time daycare in terms of their stress hormones going up towards the end of the day rather than down as they do in the home-reared children. So we need the proper preparation.



Once the baby is born, parents and communities and organizations that support parents within the community and at the county and state and national levels, need to be well informed about the goals and how well we are educating our babies, toddlers, and preschoolers for and how that builds a foundation for the school systems coming in and being an important factor and step in their continuing education. Here we have identified the pathway that leads to healthy thinking, healthy intellectual development, as well as healthy social and emotional development. What is interesting here is that these are part of the same fabric. They are not different elements. We have talked about some of these in the past. We have outlined elsewhere the stages of development where intellectual and emotional and social development really are part of the same series of steps. It just involves simply the breadth of application of each of these steps. I'll give a few examples here, but I won't repeat what we have already outlined elsewhere.


As many of you know, the first step involves helping a baby learn to pay attention and be calm and regulated. This is obviously a foundation for attention and learning. It is also a foundation for controlling your own behavior by being well regulated. It is not that the whole story is told in the first months of life, but the foundations begin here. It begins with an attentive caregiver who helps that baby look and listen and turn all at the same time. We have also shown that these important mental skills are part of healthy brain development. The brain requires specific environmental caregiver/baby and then caregiver/child experiences to build these healthy pathways. This is then further developed throughout this lifespan and can either get better and better and better or can deteriorate with stressful environments or stressful environments or disorganized family environments or abusive or neglectful environments or environments that don't build the next stages. For example, learning to relate to others begins with falling in love with your own mom and dad or own dad or own mom or other caregiver. Out of that grows empathy, caring, and optimism and all other positive qualities as well as the ability to eventually be a parent and raise a family of your own and relate warmly to peers at work, and have solid relationships with friends as you get older. All of these stem from the same basic framework as well as the ability to learn from your teachers, as well as the ability to understand advanced subjects like the culture of other peoples. All of that stems from this ability to engage with others because if you are in your own world and don't master this ability, then you are on a pathway towards either getting lost in fantasy and self absorption or self centeredness, which makes it hard to be a good parent or good spouse as well as difficulty in understanding the world as you gain knowledge and read about not just other cultures but read about trying to understand characters in a novel. All of this can be impaired, as well as your ability to learn from your teachers and get along with your fellow students.



The third step has to do with caregiver/baby interactions going from 6-7 months up through 9-10 months, and here is where you learn through back-and-forth vocalizations, through back-and-forth gestures like reaching out with your hands and getting that rattle that your mommy is holding, handing it back to her – this surprisingly is teaching that the world is a purposeful, causal place and a place where things will eventually have a certain logic to you; that you will be able to think about and it teaches you that you can have impact in the world. It offsets the tendency to become passive and helpless. So causal thinking is critical. It also will help you write an essay in high school, junior high, or even in grade school. It will also help you understand science and math, which are based on logical thinking. So we have logic or purposefulness or causality developing way before the child even speaks.

We are talking about the steps that lead to healthy social and emotional development, but also healthy intellectual development and also the mastery of academic abilities. I gave a few examples from early infancy, and now I am going to shift to later examples. Those who know the roadmap know that logical thinking using ideas, which stems from imaginative thinking, begins towards the end of the second year of life and into the third year of life with a lot of pretending and imagination. That helps us create ideas and helps us also share our feelings, share our desires and thoughts, but also helps us play with other children in pretend play and eventually helps us create essays and novels and new mathematical principles and helps us invent new scientific insights then leading to discoveries and new technologies. So imagination is critically important and again, all of these involve caregiver interactions with our youngest members of society to create this flow.


Jumping ahead to logical thinking and the higher stages of thinking, is equally important. The ability to connect ideas and be able to answer, for example, a simple “why” question – “Why do you want to go outside?” “Mommy, because I want to play” or “Daddy, because I want to play” or “Sarah, because I want to play” is the beginning of logic and purposefulness at a level of ideas which, as we pointed out, starts at 8 months. Without this logic, it is hard for a child to make sense out of what they read. Also, it is hard for them to master the principles of quantity that lead to math or the principles of science that are built on logical explanations for events such as climate changes or how the earth rotates and why it is light part of the day and dark part of the day and how that is related to the sun. So whether it is math or science or comprehending what we read or even mastering the connection between what we see in terms of the shape of a letter and what it means in terms of building a block of words and how words make sentences, all is based on mastering a certain degree of logic. Of course some children do this strictly by



memory, but that is not truly understanding or mastering it. That is memory-based learning, which is not quite the same as what I am pointing out as thinking based.

As I mentioned earlier, these applied to our social worlds as well as understanding what we do has consequences for other children. Our feelings and our behavior that follows it may make someone else happy or sad. So it is a very important part of social relationships. Also, it is an important part of understanding ourselves and evaluating ourselves and being able to share our feelings with others – “I feel sad” or “I feel happy.” It is all based on logical thinking. All of this revolves around caregivers who engage their children and challenge them to be logical thinkers. A “yes” or “no” to “I want to go outside” versus “Well why do you want to go outside?” makes all the difference in the world – that more elaborate conversation is what is critical. The child who misbehaves and asking him how he feels just before he misbehaves, even if he then has to endure a certain sanction like a timeout or missing playing with his favorite toy makes all the difference in the world in terms of a child understanding why he has to control his behavior and regulate his behavior rather than just doing it out of fear, which is not nearly as effective.


When we get to the higher levels of thinking, it is even more difficult for many families and many educators and many policy makers to understand the connections between these course stages that we have outlined and both the children’s social and emotional development and their academic achievements. Once a child is able to connect ideas together, they move to advanced levels of thinking. The next stage is what we call comparative and gray area thinking where they can compare two things like two friends that they have and tell you why they like Johnny a little better than Harold, because Johnny is nicer or Johnny likes to play the same games that they play. Prior to this, there is a subtle stage where the child is capable of what we call multi-causal thinking, where they can consider many reasons for, for example, why they want to go outside or why they like apple pie better than blueberry pie. This may seem to be purely social and have very little academic relevance, but mostly causal thinking allows them to understand that there are many causes for the Civil War; that there are 3 or 4 reasons for a particular scientific fact such as why it takes so long to get to the moon – one because it is far away, two because we don’t have fast enough rocket ships, three because we have problems with having enough fuel to make the trip and back, etc, etc, etc. If that isn’t true for the moon it certainly would be true for, let’s say it was Mars we were talking about. Similarly with comprehending what they are reading, the characters many have many reasons for what they do.



When the child gets to gray area thinking, they master the fact that things occur in graduated steps. They move from all-or-nothing type thinking where it is my way or the highway to, “Well, I can be a little bit angry or I can be a little more angry, medium angry, or very angry.” They can understand that they like Johnny a little better than Harold for the following reasons, but they really like Johnny better than Steven because Steven tends to be a bully, etc. So it helps them understand social relationships. Similarly with their own emotions – they feel happy most of the time or a little bit of the time or none of the time so they aren’t happy or mad or sad but there are steps in between.

What does this have to do with academics? To understand quantity, you have to understand quantity in terms of gradations. It is not just that these are a lot of cookies and these are not enough, but these are a lot but not quite as much as I want. These are a little bit less. It helps you have meaning for the numbers. On a 10-point scale, I’d say this satisfies me at an 8 whereas this pile of cookies satisfies me at a 10 and this only at a 3. So it helps you understand numbers. It helps you understand what you really mean when you do multiplication and not surprisingly, division. Not surprisingly at this age – around 7 or 8 or 9, children are learning to do that type of math. It helps you understand the characters in a story you are reading in a more complex fashion. It helps you understand science in a more complex way; that things are relative to one another. For example, that if you pull something a little hard, it will stretch, a little harder it will stretch, a little harder it will stretch more, but then you reach a breaking point; as opposed to you can’t stretch it at all to even stretch it as hard as you want to. That can tell you how rubber bands work. It can tell you lots else that you need to master science.

After comparative and gray area thinking, we get to reflective thinking where the child can think about their own thoughts and feelings. Here they can reflect on why they feel so sad today or so angry today or so happy today and say things like, “Gee, I don’t know why I’m moody today. Maybe I woke up on the wrong side of the bed, maybe it is because I’m not looking forward to school today because we have a test.” But it allows the child to evaluate their inner world and also evaluate their own thoughts. They can write a paragraph and say, “Gee, this doesn’t do what I want it to do.” They can evaluate their own essays. This starts at around age 10 or 11 and goes on through life to higher and higher levels. Obviously it is critical in relationships that get more complex during adolescence and adulthood, taking care of children, being able to reflect and correct oneself, but to master and understand other cultures and compare them to one’s own culture, to understand why someone else may feel something different than in another culture than our own culture, to understand more complex novels or more complex



literature, to understand complex political events around the world. We see all the time all-or-nothing thinkers dividing the states into reds and blues and there are no in between for people who appreciate subtlety and gradual gradations, and also can reflect on these in their decisions and see why they may like one candidate better than another, what they want for their future, and obviously it is essential in teaching their own children, eventually, to become reflective thinkers. Reflective individuals tend to gather around each other but we have too many individuals who don't reflect. An economic crisis where people overestimate the gains and don't take into account the risks of, let's say buying up too much property, is another good example of these financial decisions, of evaluating one's own reaction; one's own enthusiasm and "Oh, gee, prices are going up, I should get on the bandwagon now" versus, "Gee, I'm tempted by this, but what is the likelihood that it will continue or do I really have the capital to make this investment even if the market shifts?" That makes all the world of difference for wise, economic decisions and understanding what feels like economics.

So here we have some brief examples of both the social and emotional areas and also in both the academic and purely intellectual area of the importance of mastering certain basic stages, each of which depends on certain caregiver/child interactions, be it a teacher, a parent, a mentor, or another type of caregiver. It is essential, therefore, that we have at the core of our investment in education, understanding that it begins way before the baby is born, and continues throughout life, but that it has to be thinking based and it has to recognize the continuity and flow of education from the infancy through the preschool and through the school years, and that requires not just healthy families and living in healthy communities who feel secure and stable, but it requires a mastery of the kind of experiences our caregivers and teachers must provide for children.

So we will return to this topic in the future, but this is a beginning discussion of what is a very complex issue.