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Television and the Young Child

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What can be said today about television and the child? In the last decades we have accumulated a lot of information that can help us discuss and better understand the effect of television on children. Most of this information is negative which compels us to contemplate television's effects on children and also on adults. But it is true that the dangerous effects are inversely proportional to the age of the viewers.

The first questions we must ask ourselves are: What can television really transmit? And how does it happen? This leads us to the problems related to technology and there is a third question: Can this technology be neutral, depending only on how we use it, or can it interfere with the child's emotional and intellectual growth?

The answers to our questions come from an examination of the negative characteristics of television. These characteristics are:

- great reduction of real experience
- pathological effects on body and mind
- control by the few on the rest of the population

We will discuss only the first and second points which are more directly related to the young child.

Great Reduction of Real Experiences

All living creatures, but especially human beings, come into life with a natural potential for gaining

knowledge. The first things to be known are the environment and the way we can act in it. We need information (the sensory input) and we need to store the information in an "ordered way".

Information comes from the environment and in order to develop a rich and ordered mind children need to be in touch with reality. Research has found that the average child spends a minimum of four hours a day in front of the television (and much more on Saturdays and Sundays). This is an average of two thousand hours per year! All these hours are subtracted from the hours of direct contact with reality that is possible for each child.

And now we must ask ourselves: Can the external world be transmitted from the television screen? Can all the dimensions necessary for knowledge (and mastery) of reality be perceived through television? Can time, space, landscape and context reach the person watching the screen in the dark of a room?

In a world in which many important natural experiences are made difficult (or impossible) for children, television reduces even more the direct relationship with reality. Children cannot gain correct information about the world around them. This limited and distorted basic information will influence all of their life because we need clear and sure points of reference in order to deal with the world.

When we look at television we do not realize the absence of three sensory channels and the lack of concordance between what we see and what we listen to. This situation is called "sensory schizophrenia" because the senses are divided between themselves, the mind, and the external world. All the

messages that need the five senses completely functioning and interacting between themselves cannot arrive to the viewer because television eliminates an enormous amount of sensations and so it reduces our participation and response to the world.

Let us consider a moment the rich and extraordinary complexity of nature that in no way can come to the television viewer but that could be experienced, even in a modest form, in any little garden or park near the house if children did not spend so many hours in front of the screen. Only direct experience can produce personal knowledge while if we depend always on television for information we detach from reality and lose the capacity to judge what is really happening.

What we are trying to say is that: "The development of human potential can happen only through real experiences in a real environment and, in the first years of life, we need also the help of real persons who have the role of mediators for children."

Becoming human is a time-consuming task that needs the participation of other human beings. This basic necessity manifests itself from birth when, for apparently biological and survival reasons, newborns must have at least one human being from whom food and care are received. With food and care given in the proper way, children gain knowledge of the environment and are given behavioral models that will be utilized in an active and personal way. Television is a machine, an object, and lacks the indispensable qualities needed for helping human development whose goals are self-consciousness and independence.

Sensory information followed by observation, concentration and repetition are necessary for learning. Each child, in his/her uniqueness, needs to be allowed to stay with the observed object for as long as it is necessary in order to reach a complete sensory input of the object. This time brings the concentration necessary for establishing a long-term memory of the collected data, the acquisition of a new page in our "living library". Repetition is part of this process. But television, like all other mass-media, gives continuous, one-way information with no possibility of prolonged observation and personal action or interaction. Children are deprived of their natural ability to learn in an active interchange with the environment (people and objects) and are pushed to become passive watchers with no time for processing and storing information.

The foundation of Montessori pedagogy is the discovery of the human being's inner drive for normal development, the recognition of the child's need for activity, the "help me to do it myself", the need for auto-education through personal work in a prepared environment.

In the first years of life, and I must insist on these first years because they are very special in our development, children must be offered activities that change according to their motor and intellectual ability but are the same in the goal of providing a response to the basic need of knowledge, independence and autonomy. The valuable gains of such an education are a basic faith in one's self, self-confidence and the feeling of personal worth and social importance. The message absorbed in the mind of the developing human being is:

"I can, I am capable, I have a value because my collaboration is needed by the people with whom I live, my work is important to others and with this work I can transform the world".

When children spend many hours every day in front of television they are deprived of "learning by doing", the experiences necessary for establishing the basic cognitive and psychological growth that will sustain them throughout all future life's activity.

It is right to say that television, contrary to what they want us to believe, is an anti-experience and an anti-knowledge machine because it separates individuals from themselves and from the environment and makes them believe they are living while they are only observing passively what other people decide to make them see.

The negative effects of television on young children show clearly at school time. Primary teachers report a significant decline in the manual abilities of five and six year-olds. During the first years of life hand work is crucial for the development of the brain. We must ask ourselves if lack of personal activity in the environment can affect the hand-eye-brain functions.

When human beings reached erect posture and began to use their hands to make tools, this activity promoted the growth of the brain. Realizing what hand work can achieve, human beings have been stimulated to think more and more on how to solve problems. The work of the hands makes possible solutions: thinking with the brain (having ideas) and putting them into practice (acting in the envi-

ronment) help one another.

What happens when children's hands are not used during the first years of life which are their key developmental period? Primary teachers complain also about greater passivity in playing in general; inability to concentrate on a given task and difficulty in listening to people when they speak.

Television patterns set during early childhood can greatly influence the children's educational future. Parents and all other responsible adults must become aware of the negative effects that television can bring into their present and future life. It is important to underline again that three year old average children spend at least 30-50 hours a week in front of a television set.

In 1986 Dr. Richard Smith and his colleagues (Pediatric Department of Brockton Hospital, Massachusetts) proposed to ensure that proper information was given to pediatricians about the great danger of television for young children as the only way to get the information to parents, but I am afraid this advice has not been followed until now.

Pathological Effects on Body and Mind

Now we must bring our attention to the pathological effects of television on the human body and mind. In order to better understand these effects we need to recall briefly the relationship between light and living beings. This relationship is studied by a new branch of science called photobiology.

The only natural light is sun and moonlight and we do not know much about the latter. Sunlight comes from a mixture of seven fundamental colors in a special proportion. Plants utilize this light for photosynthesis which enables them to have the biochemical reactions necessary for their growth and maturation. But if plants are exposed to artificial light in which all colors are not present or their proportion is changed, plants show a different model of growth.

Also to be considered is how sunlight regulates the day-night rhythm in mammals. Chronobiology is the name of the science that studies the response of body cells to this rhythm.

The Environmental Health and Light Research Institute in Sarasota, Florida demonstrated that living beings are as highly affected by the X-rays emanating from television as they are from artificial light, especially fluorescent. Their researches talk

about the double function of light for human beings:

- one is to transmit light, through the optical nerve, to the occipital cortex where images are created and understood.
- the other is to send light, through neuro chemical paths to the pituitary and pineal gland which influences the endocrine system.

What can happen when human beings ingest, many hours a day, television x-rays and fluorescent television light which is composed only of red, blue and green light rays? Hyperactivity syndrome and many allergies in children are now seen as having a relationship with television light plus artificial colors in food. We are just starting to understand and measure many other physical undesirable reactions like obesity, high-cholesterol, aggressiveness and cancer.

At this point we must clarify that what we call a television image is in reality a composite of many small fluorescent points which go on and off 30 times per second. It is only through the interpretation of the visual cortical area that these small points are composed in an understandable image. The continuous flash (which can cause a kind of epilepsy called "television epilepsy") is not perceived because our perception is possible at the conscious level only when there is a transmission of 10 times per second. This higher speed is used by "subliminal advertising" because the brain can receive the message while its conscious part is not aware of it, but the effects are obtained!

Images on the television screen are produced and perceived as a constantly moving field of winking dots and the eyes must not move in order to track the moving image. As the television images are very rapid, a continuous effort is necessary to capture them and this work does not allow any conscious thinking, personal reflection and criticism. The mental apparatus is destructured and we have the same conditions that are present for the trance in hypnosis: darkness, a still body, intermittent light, the capture of interest and attention. In this way it is possible to introduce the instruction (as in hypnosis) or the message (as in advertising).

Without the filter of consciousness and critique, the television images enter into our brain but cannot be really integrated into our psychic apparatus so they become like an undigested material that dis-

characteristic of any psychotherapy to bring into consciousness that which is unconscious but alive and therefore, acting and producing mental disturbance in the human being.

The continuous work needed to capture television images produces a mental attitude of passivity that impedes a personal elaboration of what is seen and makes it possible to accept everything. In order to think about the television images that are constantly produced in our unconscious, we should bring them to consciousness; but, this is impossible when we look at television because the images continue to come one after the other and there is not time for awareness.

An extensive study done in 1975 by the Center of Permanent Education of the Australian National University of Canberra came to the conclusion that when adults look at television "their usual thinking and selective processes are working at no more than half their possibility".

Television gives pieces of information that lack context and meaning and are not integrated (pages of our living library with no order). It is absolutely different from what happens when reading because we can choose the book, we can read at our own speed, we can stop for reflection, or go back to a particular point. In this way reading becomes a learning time in which the information can be united, in an ordered way, with what we already have inside through the conscious effort and active participation of the reader.

I wish to share with you one possible explanation of the increasing number of children with learning disabilities. Children with long daily exposure to television lose the capacity of listening, they cannot pay real attention. What seems attention to the screen is simply the effort required for following the change of fluorescent points in order to detect the image: it is a chase of the image.

This work with images belongs to one hemisphere of the brain (usually the right one). The same hemisphere specializes in global thinking, synthesis of many data, etc.

The left hemisphere deals with analytical thinking, processing one datum at a time, doing the step-by-step work necessary for writing and reading in our languages. Children who, from the very beginning, have their life filled with images continually coming and going can develop great viewing comprehension (image, global language) but when con-

fronted with written language that requires the ability to see and understand letters one after the other, analytically, they are incapable of this work. Children become frustrated and so do not wish to continue the effort. This is a great problem. Poor readers will face a very serious handicap in education and in society and these human beings will be kept at an inferior level of understanding of all that goes on in the world. Lack of sufficient vocabulary will prevent them from entering into the knowledge of their time. This means also less participation in life and less joy.

Television as a Model of Behavior

All television images entering without the filter of our consciousness and critical judgment are very important in producing behavior which tends to make us become similar to what we have seen. Internal images are very powerful in determining the way we perceive the world and how we react in it. We know very well how easy it is to accept new ideas at a rational level, but when it comes to action, the internal images are the ones that condition us and continue to present themselves even when they are destructive and not convenient for us. These images become models of behavior and this is particularly true for children who tend to identify with television characters and to react like them. But these characters are almost always unreal (they can fly, move at supersonic speed, etc.) or are violent while children need real behavioral models in order to overcome positively the evolutive crises. Imitation, so necessary for development, becomes imitation of mechanical persons or cartoons. Moreover on the television screen real and unreal facts are continuously mixed and it is often difficult, even for adults, to separate one from the other.

What about children? Especially young ones whose experience is very limited and whose direct knowledge of reality is nowadays more difficult to attain? They receive a very confused vision of the world and of their own possibilities of acting in it.

One more observation: television, because of the technical difficulties in reproducing images, must give importance especially to close-ups of faces in order to make them express something and the faces must be isolated as much as possible from the context because there is a short signal-context relationship in television. This difficulty necessarily limits the choice of programs to those that must have big and not detailed images. So it is impossible to

express the important but subtle gradations of feelings produced during positive human relationships. Because television can transmit only a limited range of the emotional spectrum, all delicate and tender feelings are excluded; yet, we need to show them in order to help the children's positive emotional development - development required for a happy and rich social life.

For television to be engaging, images must move rapidly. For this reason it is appropriate that most images are of violent actions and feelings related to fear and competition; therefore, most programs are of fighting, police movies, sports, etc. All the information must be given through action and movement and all other parts are completely ignored; yet, these missing parts are very important for a complete understanding of what happens in life.

Eighty to ninety percent of television programs contain violence and children's cartoons are the most violent programs. Does the great quantity of television violence tend to cause aggressive behavior?

The Surgeon General's Committee found a relationship between violence in television and aggressive behavior. But we all know that if our planet wants to survive and progress, we must learn to deal with internal and external conflicts and to solve them without destructive violence.

Another danger is desensitization. While scientists continue to say that the most important thing in order to live well and save the earth is love, television transmits mainly antisocial behavior which contributes to the increase of emotional illiteracy at any age.

The average child sees a minimum of 400 advertisements a week. What about health habits in nutrition (high-sugar diet, caffeine in soft drinks and life-style (sex roles, racism)?

In 1968 Action for Children's Television (A.C.T.) was formed with the intention of protecting children from the massive, negative input of television in our life. Adults must think about the dangers of daily prolonged exposure of young children to television. This medium, because of its own technical limitations, modifies human beings so that they become adapted to an artificial and commercial world like the one that is continually proposed to them and that impedes the development of the great potential of joy and creativity present in every person, but especially in children.

Maria Montessori proposed the Children's Party in defense of the integral development of the human being and as a protection from dangerous external factors in their development. Television is an external dangerous factor. She says the 'children must be liberated from the external pressure that the society of adults puts on them and reminds us that the care of children is not only a social matter but the most important social matter if we wish to provide an education appropriate for the coming century.

To resist the power of television in our world is very difficult but if we love children it is necessary to help them. Here are a few suggestion:

- no television until at least 5-6 years of age and then only when children are already able to write and read well.
- television should ideally be viewed with adults who can comment on it and guide children to a more conscious understanding of what they are seeing.
- make it possible for children to collaborate with us as soon as they can walk well so they are busy in real activities (practical life).

We are very important in the life of our children and we can teach them how to use the "big toy" (the brain) we have. We can read together, play cards or chess, paint and...talk! The family is the first place where children must live the values we say we believe in. In the family starts the transformation of society. In a more direct personal education, at home and in school, is the hope of a better future for the approaching third millennium.

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