This booklet examines the influence of television on children and adolescents in developing and developed nations, reviewing research on television's relationship to child health and development. The first section reviews specific research on such variables as number of television sets in use, amount of time spent watching television, age, sex, urban versus rural settings, and types of programs viewed. The second section examines the effects of television on child health, discussing frequent but minor disorders such as sleep disorders, effects on eyesight, and disturbed attention span and concentration, along with serious but exceptional disorders such as epilepsy, severe anxiety, and suicidal behavior. The third and fourth sections look at the positive and negative impact of television on intellectual development, language skills, social development, cognitive development, and socialization. The two last sections, respectively, review research on the impact of television on children in Asia and outline a Brazilian initiative to use television to educate young people, many of whom do not attend school regularly. An appendix describes the Training TV Viewers television program used in Brazil to educate people about the positive and negative influences of television. (MDM)
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International Children's Centre - Paris
The International Children's Centre was created by the French government in 1949, on the initiative of Professor Robert Debré in particular, following negotiations between France and the United Nations. Its purpose was to furnish those international and national agencies dealing specifically with child care with training facilities and educational and informational tools in the field of child health and development, viewing children within their family and surroundings.

ICC soon turned essentially toward Third World children and devoted its activities to the training and education of personnel with social, educational and administrative responsibilities as well as medical and paramedical workers. The desire for greater efficiency has led it to work increasingly with trainers and to concentrate its efforts on the methodological and educational aspects of mother and child care programmes.

ICC is also engaged in an attempt to further study - and - action on some aspects of the life and health of children and their family, so as to contribute to practical improvement, particularly in the fields of growth, nutrition, planned parenthood, the control of transmissible and nutritional diseases, preschool and school education, the needs of disabled and underprivileged children, etc.

The documentation centre of the ICC has been collecting, processing and circulating invaluable information on children and their environment for the past forty years. In the last decade the centre has also developed the Robert Debré Database (BIRD); with its current 110,000 references, it can meet your bibliographic research needs either by correspondence or by visiting the centre's library. Furthermore the ICC also produces the BIRD CD-ROM, updated yearly with the latest database references; it is a user-friendly compact disc operated on any IBM compatible PC equipped with a standard CD-ROM drive. ICC also publishes books, proceedings of symposia and educational documents, as well as comprehensive analyses and bibliographic bulletins.

As for its legal status, the International Children's Centre is a foundation under French law of recognized public utility, administered by an executive board with broad international membership.
Michèle BANNAY  Primary school teacher, researcher, France.

Maria Luiza BELLONI  Professor of sociology at the University of Brasilia (Brazil).


Works in public health and the social sciences, and has run a number of activities at the International Children’s Centre on the relations between children and the mass medias including, most importantly, the coordination of a collective ICC publication containing overviews on “Relations between children and television”, a programme on education in the mass medias (in partnership with the University of Brasilia) and a seminar on “Children and television in Asia” at Cipanas (Indonesia).

Sylvie MANSOUR  Psychologist at the International Children’s Centre for the last four years.

Worked in Lebanon for 15 years as clinical psychologist and at the American University of Beirut Medical School.

Has published papers about children and war, and above all, on “Children and stones - an investigation in occupied Palestine” (Books series, the Revue d’études Palestiniennes, 1989) and has contributed to a number of collective works.

Vijay MENON  Asian Mass Communication Research and Information Centre in Singapore.

Gordon HOGAN

SECRETARIAL WORK  SYLVIANE LE BIHAN

TRANSLATION  HELEN ARNOLD
INTRODUCTION*

Any discussion on children and television immediately uncovers several points.

Although the concentration of television sets is extremely uneven in some parts of the world, there are hardly any countries where television cannot be seen. Children's exposure to the mass media is increasing most rapidly, in both the developed and the developing countries. It is often already enormous, to the point where children and adolescents spend more time watching television, in the course of a year, than they do at school.

Although television only made a way for itself in many countries by arguing that it could contribute to development and education, the forms and content of the messages to which children are exposed are usually essentially entertaining, with the underlying motivations generally being commercial rather than any instruction or education.

As a rule, children are poorly prepared for television: they consume it passively, and are incapable of being critical viewers. Adults are not necessarily in a better position, in fact: TV is a newcomer to their culture, and they lack references, and tend somewhat to abdicate judgement when faced with it.

Last, in developing countries as well as in the disadvantaged parts of industrialized countries, some young people do not have access to any other means of communication or culture (cinema, books and periodicals, theatre, concerts, exhibits): this further accentuates the role of television and radio.

Studies often point out the negative consequences of television on health, viewed in the broadest sense as "physical, psychological and social well-being". How does television really affect children? What does science have to say? As B.S. Centerwall (1) says, it would be unreasonable to respond to the problem of car accident victims by putting a ban on cars. It seems preferable to emphasize the importance of seat belts, traffic lights and driver education. The same approach should be applied to television. We must determine what approach to take in an attempt to improve and optimize children's relations with television.

This issue of Children in the Tropics presents an overview of these questions, the importance of which is increasingly obvious since, everywhere in the world, irrespective of the country's level of development, television tends to occupy an increasingly central position in the lives of children and within families.

* By Eric CHEVALLIER and Sylvie MANSOUR

VIEWING TELEVISION*

Viewing television is a self-evident part of life for children in industrialized countries, and is now rapidly expanding in developing countries. Before we paint an international panorama of the quantitative and qualitative aspects of how children watch television, it is important, then, to look at the number of TV sets, their geographic distribution and increased presence in different parts of the world. Caution is required in analysing this information, since the data available is extremely heterogeneous.

The geographic distribution of sets is extremely uneven, as shown by the figures published by Le Derbider and Coste-Cerdan (1) and Hervé (2).

On the basis of these statistics, Pierre Royer has suggested a division into three regions. The first region, including the USA, western Europe, ex-USSR and the industrialized countries of Asia (Japan, South Korea, etc.), is "heavily equipped", in his classification, with nearly 100 % of households possessing at least one TV set. The most striking member of this group is definitely Japan, where 100 % of homes have 2 sets and 25 % have 4 sets. In Canada, a recent study (3) has shown that every Canadian family has at least one TV set. Over half of them (57.6 %) have 2 sets or more, and in 10.6 % of homes children have a TV set in their bedroom. Further, slightly over 70 % of homes receive cable TV and/or have a videocassette (71.5 % and 72.9 %). The figures for the United States are equally eloquent, since 88.6 million homes had at least one set in 1989, and over 58 million had two sets or more (4).

Another study, conducted in France by Médiamétrie, Diapason and the Institut National de l’Audiovisuel (5), yields recent information on children and adolescents: 96.6 % of French youngsters have access to at least one TV set (45.1 % have several sets at hand) and one out of four has a set of his/her own. French households are less well equipped with videocassette recorders than north American homes, but 27.1 % of children do have access to one, and use it on their own, usually toward the age of 11.

A second, moderately well equipped region includes eastern Europe and the Middle East (50 to 60 %), along with such Latin American countries as Brazil, where 75 % of homes have TV.


* By Eric CHEVALLIER
A third region, viewed as under-equipped, includes India, China (10%), north Africa (15%) and Sahelian Africa, where less than 5% of homes possess a set. In the latter area, however, there is a great difference between the number of TV sets and audience size, since people often view programmes collectively, on a single set.

Last, there are of course considerable differences within any one region, between urban and rural settings.

This uneven world-wide distribution of equipment with TV sets may then be seen as a rather good reflection of economic development: high percentages are encountered in the industrialized countries, while the most disadvantaged countries are also, typically, the least well equipped.

The 1990 UNESCO world communication report (6) illustrates this picture, in its statistics on the number of TV sets per 1,000 inhabitants in each country. The extreme diversity of situations is striking, with 813 sets for 1,000 inhabitants in the United States or 534 sets in Great Britain, for instance, as opposed to countries like Yemen and Guinea, on the other hand, with 28 and 32 sets per 1,000 inhabitants. These figures should be relativized, however, since differences between town and country, as well as between rich countries and poor countries, tend to subside at present.

Today, the developing countries seem to be experiencing an increase in audio-visual equipment similar to the rapid inflation recorded in the industrialized countries in the 1950s. This is perfectly illustrated by the rising numbers of TV sets in two countries such as France and Brazil: in France, the number of sets rose from 3,800 in 1950 to 11 million in 1970, and crossed the 20 million mark in 1988. Brazil, which had 622,000 sets in 1960 and 4 million in 1970, reached the figure of 28 million sets in 1990.

As pointed out in the Unesco report, however, radio is still the key media in most developing countries, and especially in subsaharian Africa. The number of radios per 1,000 inhabitants is much higher there, as a rule, than the number of TV sets. Examples include Ethiopia, with 186 radio sets and 1.7 TV sets per 1,000 inhabitants, Peru, with 247 radios and 84 sets for 1,000 inhabitants and Afghanistan, with 87 radios and 6.7 TVs for 1,000 inhabitants.

Rich countries and poor countries seem to be more evenly equipped with radios than with television sets, then: Sudan, Poland or better yet, Argentina, with 253, 415 and 645 sets respectively per 1,000 inhabitants, are not terribly different from countries such as Japan (824 per 1,000) or France (896 per 1,000).

Although radio remains the predominant medium in some countries, it is quite probable that equipment with television will progress considerably in the forthcoming years, thanks to broadcasting by satellite, among other things. One corollary of this will be

increased viewing by adults, of course, but also by children everywhere, or at least in the developing countries. In countries that are already heavily equipped, there is some evidence - in the United States in particular - that TV viewing by children, which had been climbing regularly for years, has very recently begun to drop. However, there is no way of knowing whether this represents a real decline or a changeover to other activities such as video games.

American children spend more time in front of TV than at any other activity, with the exception of sleep. This particularly striking statement opens an excellent article, written by Dietz and Strasburger (7), on "Children, adolescents and television". It is a fact that in the USA, as in most industrialized countries but also in a growing number of developing countries, children now spend more time watching television than at school. On the basis of the findings of a study conducted by the Nielsen Institute on 4,000 homes in 17 metropolitan areas in the United States, Dietz and Strasburger point out that American children spend an average of 20 to 30 hours a week watching television, depending on their age, and that a two-year old spends 60 days of the year in front of a television set, and will have spent three years there before leaving school! Thus, variations in the school-year calendar apart, we find an average daily schedule of TV-watching of about 3 and one half hours. This figure is close to the lower end of the 3 to 5-hour range found in most investigations of the amount of time spent by young Americans on watching TV.

In Canada, a 1988 study (8) of 387 children arrived at the conclusion that children spend an average of 14 hours a week in front of TV, with extremes ranging from one hour to ... 56 hours! 14% of children watch TV less than 7 hours a week, and 27% more than 17 hours.

While figures for TV viewing are by no means homogeneous in Europe, they seem to be slightly higher than two hours a day, ranging from one country to another, from one and a half hours to three hours. The lowest consumption is found among Germans and Norwegians, whereas British, Swedish and Swiss children are usually in an intermediate position. French youngsters are at the high end of this European middle group.

As three of the best specialists of the subject (Chalvon, Corset and Souchon) (9) remind us, 6 to 10 year-old French children spent 804 hours in front of their TV in 1989, and 11-14 year-olds spent 871 hours. As always, these figures naturally mask tremendous individual differences. The writers also point to the lack of data on children under age six: why this gap? The answer is obvious: "it is

(8) Ibid 3.
difficult to develop survey methods for very young children, and perhaps too, there is the fact that they are not yet sufficiently influential consumers - or purchasing agents, as advertisers call them. For lack of information on the behaviour of these very young audiences, the risk is great that they will be neglected when programmes are scheduled...

A pan-Asian workshop on “Children and television”, organized in September 1991 in Indonesia by the International Children's Centre, in collaboration with the Indonesian Child Welfare Foundation and the Asian Mass communication Research and Information Centre, brought out some recent data for Asia. In Japan, according to Sachito Kodeira, an NHK researcher, a study conducted in 1988 in Tokyo showed that the average viewing time varied with children’s age, ranging from 2 hours to 2 hours 45 minutes a day, which figures are similar to those found in some other countries in the area with a high development potential, such as Malaysia. In Pakistan, a study done by Nisar Zuberi, professor at the University of Karachi in the country’s largest cities showed an average viewing time of 16 hours a week, a figure close to the one found by Unicef in India in 1987 (10).

Data on other parts of the world are scant, at least in English, Spanish or French language publications. However, there are a few papers in Latin America showing heavy viewing, especially in the large metropolitan areas where the figures are way above three hours a day, as is the case of Brazil, for instance, according to Maria Luiza Belloni, professor of sociology at the University of Brasilia.

Several factors affecting the amount of time children spend viewing television have been identified, but their exact role is not necessarily evident. The six variables most frequently mentioned in the numerous studies are age, sex, season, day of the week, urban or rural place of residence and family sociocultural level, especially the mother’s occupational level.

In many countries, children now come into contact with television at a very early age, often before age one year. By age two they generally know how to turn the TV on, and have become regular viewers. At age three, in most industrialized countries, the majority of children watches television every day. From then on, the time spent in front of the TV set increases steadily throughout the preschool period, until age six. There is some disagreement as to what happens at this point. According to some investigations, such as those conducted in Malmö, Sweden, the upward slope continues, whereas most writers contend, quite logically, that school partially replaces television, and that time spent on the latter declines. This is the conclusion drawn by Anne-Claude Bernard-Bonnin’s study in Canada, and by the Nielsen Institute, cited by Lietz and Strasburger, which finds 27 hours 49 minutes for 2 to 5 year-olds and 23 hours 39 minutes for 6 to 11 year-olds.

Irrespective of whether a sudden change occurs upon entering school, there is subsequently a slow but steady rise until the age of ten or eleven years. There is general agreement on the existence of a peak during pre-adolescence, followed by a definite drop in viewing during adolescence. With adulthood, very high levels are resumed, consistently higher than those found in children. Children may watch television a great deal, but they do so less than adults!

**Sex**

Publications to date do not yield any clear indication of whether boys and girls watch television to the same extent.

However, there is some possibility that the differing conclusions of studies may be accounted for by the explanation afforded by two Swedish authors (11), according to whom parents may not have the same perception of televiewing habits, depending on whether a son or a daughter is involved. Girls are generally more closely supervised than boys. This may lead parents to report more accurately for their daughters than for their sons, and thus may explain the slighter difference between parental estimations and the girls’ own evaluations.

**Season**

Seasonal variations, on the other hand, have now been definitely documented. They are perfectly summarized by Judith Lazar (12):

"On the average, youngsters spend less time watching television... in spring and more in autumn, with a peak during Christmas vacation."

As might be expected, during the school year, viewing is most frequent on Wednesdays, Saturdays and Sundays, in France, as pointed out by Judith Lazar. And according to the Médiamétrie-Diapason-INA study, there is an average increment of over one hour (or about one third) of viewing time on non-school days as opposed to school days. However, this finding may be refined by relating it to age. According to the latter French survey, "viewing time on school days rises regularly with age"; this is also true for Saturdays and Sundays, whereas "Wednesday is not an ordinary day, it is the day on which the younger the spectator, the more he/she watches TV". 11 to 13 year-olds, who are the heaviest consumers, are also "the group whose viewing is most evenly spread over the entire week".

**Day of the week**

Judith Lazar's findings summarize a situation which is common to most industrialized countries: "As a rule, children living in large cities (Paris and cities with over one hundred thousand inhabitants) watch television less than those in middle-sized towns or in those with less than two thousand inhabitants." The situation is obviously quite the reverse in most developing countries, because they are less well equipped.


It is now a well-known fact, established by many studies done in a number of countries that, in Judith Lazar’s words, “time spent watching TV is directly correlated with the sociocultural environment.” Dietz and Strasburger are somewhat less affirmative: “Consumption regresses slightly as socioeconomic level rises.”

In the same vein, but with a relatively different approach, the authors of the French Médiamétrie-Diapason-INA study find that if for some reason they were deprived of television, “working-class children would suffer most from this deprivation.”

Any analysis of children’s relationship to television which confined itself to the quantitative aspects would be incomplete. Fortunately, several authors have concentrated on the qualitative dimension, formulated in two questions. When a child is seated in front of a TV set, is he/she necessarily mainly occupied at watching the screen? When the child really does watch TV programmes, what is the nature and extent of his/her actual attention?

As early as 1965, Allen (13) found that when a TV set was turned on, the room contained no viewers during 19% of the time. Anderson and associates, whose work was based on questionnaires, diaries in which spectators write down their reactions to or attitudes toward a given programme, and above all on direct observation, evaluated the time during which no-one is watching a lit television at 14.7%. In this key article, which is now a reference (14), the author also describes the full range of existing studies. They include one by Murray (15), conducted in 1972 among disadvantaged families in Washington, showing that 1 to 10 year-olds spend 48% of their television-viewing time at other activities; the figure is 31.2% for 11 to 19 year-olds. For the sake of comparison, the figure for adults is 36.5%. This writer notes that children often watch TV out of the corner of their eye, while engaged in something else: playing a game, doing a puzzle, sometimes reading or doing their homework.

François Mariet (16) suggests that television viewing be divided into three categories:

- elective TV: when people choose the programme they really want. Children’s attention is at its greatest when they are watching a special programme, and not TV in general;

- wallpaper TV: it keeps you company. It is turned on all day long, but no-one pays attention to it. It does not prevent people from going about their main occupation, but affords a reassuring presence;

- TV as surrogate: it is a substitute, to be watched for lack of anything better to do. Viewing is generated by boredom.

Anderson, who differentiates between “visual attention”, which corresponds to attentive visual orientation toward the television set, and “time spent with TV”, meaning time spent in the room containing the TV set, points out that children’s visual attention increases considerably between the ages of one and five years, and according to Carew (17) the increment is particularly great between 12 and 23 months. Anderson’s charts for the evolution of percent of visual attention clearly show a sharp increase during the preschool period. It rises more gradually thereafter, levels off at adolescence at the high level of about 70% of total viewing time, and then, curiously enough, declines at adulthood. Murray (18) notes considerable inter-individual variations in children’s total viewing time and style of viewing.

Anderson’s team also investigated the factors involved in the rapid development of active visual perception during the first months of infancy. They postulate that it actually corresponds to enhanced comprehension. Consequently, the first factor which leads a child to concentrate his/her attention on a programme, in Anderson’s opinion, is its comprehensibility.

Carew postulates that attention is in fact conditioned by a more complex series of determinants such as movements, the complexity of the shapes, the techniques used, etc.

Other elements also seem to be involved, such as the physical environment when viewing TV, as shown by a survey of 9-18 year-olds done in France in the early 80s within an interministerial programme entitled “active young viewers” (19).

The quality of what these children take from a programme may also be affected by the presence of an adult during viewing. Several studies dealing with what English-speaking workers call “co-viewing” show that children’s visual attention is greater when their parents are present; and they are even more receptive when they know that the theme of the programme will be discussed afterward.

In conclusion, we may agree with Anderson that behaviour during televiewing depends not only on the material and social context in which it occurs, but also on the characteristics of the show and how comprehensible it is.


(18) Ibid 15.

IMMEDIATE, MEASURABLE EFFECTS

Imitation and participation in action

IMPACT OF TELEVISION ON CHILD AND ADOLESCENT HEALTH*

The World Health Organization defines health as “a state of physical, mental and social well-being.” When considering how television affects children’s health, it is of course the latter two aspects that first come to mind. However, to achieve a complete picture of children's relations with TV, it is certainly worthwhile to take a look at what some people do not hesitate to call “children’s television-viewing disease”. This approach has already been presented by Prof. Pierre Royer at a plenary session of the International Conference on Paediatrics in 1989, in a paper entitled “children, paediatricians and television” (1).

Three types of impact will be analysed here, in the same spirit, following a brief review of the immediate, directly visible effects. They include frequent but minor disorders, severe but fortunately infrequent consequences and last, the repercussions in terms of health-related beliefs, attitudes and behaviour.

Although their actual impact cannot be assessed in strictly physiological terms, some directly observable phenomena may be described.

Electroencephalographic observation of a viewer watching an actor performing a simple arm movement (bending, extending or swinging) on TV shows the “alpha” waves of the frontal region to accompany the movement, in rhythm with the actor’s movement. It is as if the actor’s motion “induced” some changes preparatory to the accomplishment of the same action by the viewer.

Apparently this type of imitation may be seen at a very early age. Meltzoff (2) has found that 14 to 24 month-old toddlers are able to imitate behaviour seen on television a short while ago: about 24 hours.

TV viewers, including the youngest ones, tend to imitate movements and behaviour seen on the screen, and they participate emotionally in the spectacle. This intuitively obvious fact may be recorded materially, using a cardiogramme, an oculogramme or a dermogramme. However, when subjected to highly intense and/or repeated stimuli, the organism is able to adjust.

Recordings of brain waves (evoked potentials) show that the response may decrease and subside when the same stimulation is too prolonged or is repeated too often. These are simply physiological reactions to exposure to television (or to other pictures).


* By Eric CHEVALLIER
FREQUENT BUT MINOR DISORDERS

Sleep disorders

Other studies have concentrated on the medical effects of exposure to TV. They may be divided into two broad groups: frequent by minor disorders (effects on sleep, daytime concentration, visual health and physical fitness) and more serious but fortunately exceptional disorders (epilepsy, severe anxiety, suicide attempts). In all of these cases, the problems are generally correlated with the amount of exposure and with aggressiveness, both in terms of content and in the form of what is shown. Television viewing is of course only one of a number of factors contributing to the risk of occurrence of these disorders.

The first and most obvious of these is definitely shorter nights of sleep. This disorder is seen in children and even infants who stay up late because it is difficult to prevent them from watching late-afternoon and evening programmes. This effect may be compounded by difficulty and delays in falling asleep, especially when the images seen earlier are aggressive in their content - and even more patently, in their form. Such difficulties may even result in true insomnia.

However, children also tend to sleep less in the morning, because of the development of "morning programmes" for children in an increasing number of countries. In industrialized countries where these already exist, children, including tiny infants, frequently spend a half-hour and even an hour a day watching morning programmes, which cut down on their sleeping time in the same proportion.

What is even more disturbing is that some paediatricians refer to possible impairments of the paradoxical phases of sleep, which are essential since dreaming takes place during them, and they may also be involved in the memorization process.

These conclusions correspond to Lelord’s findings (3), based on electroencephalographic examinations: "Films influence dreams."

Effects on eyesight have received much attention; they can easily be avoided. There are extremely simple rules to be respected when watching television. They are the common sense application of what we know about the physiology of the ocular apparatus.

The viewer should not be too close to the screen. Indeed, for close vision, the eye is equipped with a specific process, accommodation, which is characterized by a modification of the convexity of the crystalline lens, commanded by small muscles known as the ciliary muscles. When a viewer is too close to the screen, especially for long periods of time, his/her eyes must constantly make a considerable effort to accommodate, resulting in eye fatigue, which in return reduces the eye's ability to accommodate. To avoid this vicious circle, then, it is important not to stay too close to the screen, as many children tend to do, especially when they

are very young. Specialists define the ideal distance as somewhere between five times the width of the screen and five times its diagonal.

Sufficient room lighting must be maintained. Children - and adults as well - often watch TV in the dark. It is a fact that accommodation is slowed by insufficient room lighting, but it is impaired by lack of contrast as well, so that moderation should be the rule here, and violent lighting should also be avoided.

The televisor should be correctly tuned for colours and brightness. Adjustment to brightness is regulated by movements of the pupil, which aim at protecting the retina. Overly frequent variations in brightness make adjustment difficult, while excessive brightness is very trying for the retina. Aggressive colours, which are harmful to the retinal cones, should be tuned out as well.

These simple little rules are worth respecting, since their neglect often leads to all sorts of disorders including reddening of the eyes, tearing, fatigue when reading and headaches. True migraines may be seen occasionally (even with short viewing periods), but they have deeper causes than the simple non-respect of the above-mentioned rules of visual hygiene.

Teachers frequently complain that children of all ages are unable to focus their attention. There are reasons to believe that televiewing, especially in excessive amounts, may be instrumental in this respect, in combination with a number of other factors. P. Royer points to this, when he stresses the fact that these “disturbances of diurnal vigilance and ability to pay attention may be the outcome of a lack of sufficient regeneration through sleep, but in heavily equipped countries they are exacerbated by frequent changes of network and the habit of continually zapping.”

In the author’s opinion - which would require verification by investigation of this specific point - there is also reason to believe that the type of narration peculiar to present-day TV, further accentuated by the spectator’s ability to zap, is reduced to a juxtaposition of “high-intensity” sequences without those “breaths” or pauses which rhythm literary narrative. It would seem, then, that these programmes accustom TV viewers, and especially the youngest ones, to the repeated focussing of their attention and ability to concentrate on extremely short sequences.

This quasi-zapping, inherent in the shows themselves, aside from any habit of constantly changing networks, may have repercussions on children’s behaviour in the classroom and elsewhere.

In 1979, Cabut (4) rightly stated that: “How many children spend hours on end slouching in an armchair or on a couch, watching TV... All of that time might be spent on more creative activities,

more beneficial for the child, and particularly, with some movement involved. It is indeed important for children’s physical health and mental balance that they have sufficient opportunities to partake in some activities involving movement, every day...” Cabut recalls “Piaget’s acknowledgement of the great importance of sensory-motor activities and of play in generating symbolic thought processes and developing the child’s intelligence”. He goes on: “Motor activity is also essential for strictly physiological reasons. First, from age 2 to 6 years, motor activity improves motor coordination, develops flexibility and dexterity... Later, physical activity gradually develops postural tone... It is instrumental in regulating body metabolism, and especially in avoiding overweight.”

Overweight: there, at last, was the key word. From then on, it would never leave the limelight in research on the effects of television, particularly in the English-speaking countries. By emphasizing children’s need for physical activity, their behaviour and the time they spend in front of the TV set, Cabut was the first scientist to establish a link between this health disorder and televiewing.

In 1985, a study conducted by Dietz and Gortmaker in the USA (5) claimed to have found a significant correlation between the amount of time spent watching television and the prevalence of obesity. This link persisted when several other factors including history of obesity, the region, the season, population density, race, socioeconomic status and several other family and social variables were taken into consideration. However, the authors cautiously pointed out that there were three possible interpretations of this correlation:

- obesity results in an increase in television viewing time;
- the two variables are linked with the existence of a third variable, unidentified by the present study;
- increased televiewing may lead to obesity.

They did conclude, though, that there was apparently good evidence of a causal relationship of the third type, but still pointed out that televiewing is only responsible for a small percentage of variation in childhood obesity. This correlation between watching television and obesity seems to be tied to at least three phenomena: reduced physical activity because of time spent in front of the TV set, nibbling, and last, the negative influence of certain programmes, and especially of advertising, which are detrimental to healthy, balanced eating habits (see below).

One year after the publication of this paper, another writer, Tucker (6), published findings which tempered those earlier conclusions.

His criteria were general physical fitness and physical performance as well as obesity. Using a battery of 6 tests, and with socio-demographic variables eliminated, he found that the amount of television viewed is apparently linked with physical performance but not with the degree of obesity. Allowing for the eventuality of an unidentified third factor, Tucker then suggests the existence of a vicious circle of sorts: the more I watch TV, the less I feel inclined to go in for sports and physical exercise, and the less I practice them, and the more I take refuge in watching TV, etc.

At present, this situation seems to have reached its paroxysm, as illustrated by what is popularly known as "couch potatoes", who spend hours slouching on a couch, with soda, popcorn or cereal in hand, watching TV.

Aside from this caricatural, although increasingly frequent picture, we may agree with P. Royer that "the problem of the contributing role of television to childhood and adolescent obesity requires further investigation. In any case, paediatricians (or anyone else) may intervene preventively on any number of occasions. This is merited by the short and long-term medical, social and aesthetic prognosis in case of obesity".

Aside from those effects of televising which may be frequent but fortunately are not serious, some researchers have reported other more serious but much more infrequent and often controversial consequences. Three of these have been particularly emphasized in the medical literature. They are epileptic seizures, severe anxiety and suicide attempts.

Concern about the possibility that television might trigger bouts of epilepsy occurred to physicians at a very early date. A review of studies of the subject until the late 1970s, entitled "photosensitivity and epilepsy" was published in Newmark and Penry's book (7). These seizures are caused by photosensitivity reactions directly linked with viewing of television. They may also be induced by use of video games, as a team of neurologists in Nancy, France, has pointed out on the basis of three cases. They are quite cautious, however, in concluding that "in these three patients, seizures when playing video games may not have been any different from other people's seizures in front of a piece of furniture!"

The most frequently described signs are bouts of tonicoclonic grand mal. Other clinical forms have occasionally been documented. Some writers claim that one or two out of one thousand epileptic seizures are connected with television viewing or with video games, but this figure, possibly underestimated, is not based on any large-scale study. In the opinion of P. Royer, "this disorder is generally classified as photosensitive epilepsy because of the usual triggering factor. In fact, flickering images and rapid changes in brightness, along with children’s sitting too close to the screen,

are contributing factors. Aside from this photosensitivity-linked variety of epilepsy, there are other radically different types which are fostered by televiewing. More specifically, there are psycho-motor fits with elaborate visual participation, the contents of which may have a direct bearing on family conflicts, which are brought to mind and amplified by the subject of the programme.

**Severe anxiety**

Adults as well as children often experience feelings of fear during a show of some kind, be it a circus, television or story-telling. This does not mean that the “big bad wolf”, “three little pigs” or “little red riding hood” should be banned! Nonetheless, the fact remains that children (and occasionally adults, too) may suffer from real bouts of severe anxiety or of acute panic during certain TV shows or movies. The most famous and most often studied instance is definitely what was known at the time as Exorcist Fever, when the showing of the film “The Exorcist” was followed by numerous bouts of anxiety.

**Suicidal behaviour**

In 1986, an American scientist, Gould (8), created a sensation with the publication, in the New England Journal of Medicine, of the findings of a study bearing the unequivocal title: “The impact of suicide in television movies: Evidence of imitation”. The conclusions were equally disturbing: they showed a definite increase in the suicide attempt and successful attempt rates among New York City adolescents during the two weeks after a TV programme showing a scene with a suicide. This seemed to afford proof, then, that imitation accounts at least partially for suicidal behaviour in adolescents.

A flood of sharp and often well argumented criticism, essentially of a methodological character, assailed this study. What conclusions may be drawn from the ensuing controversy? It is probable that the fact of seeing a suicide attempt on television has a minute chance of inducing suicidal behaviour. Conversely, it is by no means impossible that when a child, and even more so, a psychologically fragile adolescent who has previously shown suicidal tendencies, sees this type of scene depicted on television, this may contribute to acting out. P. Royer is no doubt right when he states that “the medical conditions induced in children by televiewing, however prolonged, are either minor, infrequent or corrigible. While they should not elicit any deep misgivings, paediatricians should remain vigilant and give them definite attention”.

There remains the question of a possible long-term jeopardizing effect, generally speaking: what impact will television have on health-related beliefs, attitudes and behaviour?

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This is, almost literally, the title of an article published by Charles and Mary Ann Lewis of UCLA (9) in 1974. This pioneering study is one of the richest in the field. It was actually a part of a broader investigation conducted by these two researchers on the factors influencing beliefs and behaviour with respect to disease and health in 5 to 12 year-old children. The findings are eloquent: the 208 children in the sample claimed to believe 70% of the 781 health-related advertising messages they had been shown; half of the children had total confidence in the commercials; 45% claimed to have used the products advertised and over half of their parents consumed them; last, children from disadvantaged homes tended to believe more of the commercials.

Two years later, Galst and White (10), who were working on a definition of television’s role in children’s attempts to influence their parents’ purchasing behaviour, asserted, in the periodical Child Development, that there was a connection between the amount of television commercials to which the child is exposed and the number of purchasing-influencing attempts in a supermarket. Above all, they stated that the articles advertised on television and those that the children wanted their parents to buy were practically identical.

In 1978, Goldberg and associates (11) took the demonstration further, showing that when given a written food preference test, children who had been exposed to commercials for extremely sweet food products tended to select the sweetest items, whereas the opposite was true of those who had seen nutrition information messages.

Galst (12) then went a step further, by demonstrating the influence of television on behaviour itself, and not simply on preferences and intentions. The first phase of the study involved the exposure of 3 to 6 year-olds to cartoons, some of which contained commercials for products with no added sugar, as well as nutrition education messages; in some cases the adult present during the showing of the film intervened to reinforce the educational message.

On the following day, and for the next four weeks, the same children were allowed to choose their food. The main indicator studied was the percentage of sweetened food chosen; the study was concerned with the influence of exposure to each of the four types

of programme. The programmes with the greatest impact in terms of reduction of sugar consumption were the cartoons for unsweetened products and the nutrition information announcements. The message was reinforced by the presence of an adult.

Since then, these findings have been corroborated and refined on by a great deal of work in the United States, and in other countries as well. This is the case of a Mexican study published in 1983 (13), to take one example, or of a series of investigations done in Bahrain (14, 15, 16), showing, in particular, that one third of consultants at health centres in the latter country derived all of their information on nutrition and health from television. Over half of mothers thought that commercials for food products improved their knowledge about nutrition. Viewing of television was found to be inversely proportionate to socioeconomic level (2/3 of children and 1/3 of mothers spent 3 hours or more watching TV). Last, mothers with a lower sociocultural level responded more positively to their children's requests for foods that they had seen on commercials.

In France, the outcome of a survey (17) submitted to the National Academy of Medicine in 1989 corroborated the above-mentioned conclusions: certain TV commercials have a harmful effect on children's eating habits. Marie Watier, a dietetician and psychologist and the author of a doctoral thesis on this subject, came to the same conclusions in her work at the Université René Descartes (Paris V, France) laboratory of social psychology.

The effects of television do not stop at commercials, however. In Australia, for instance, one particularly prolific writer of recent years, Heather Norton, has published a number of papers emphasizing the role of programmes other than commercials - as well as of the latter - and especially of the most popular serials, such as soap operas, in the choice and consumption of food products.

(13) Vega-Franco L, Argandar-Moranchel L, Alanis-Ortega S E. La televisión y su influencia en la selección que los niños hacen de alimentos, bebidas y golosinas. Boletín Medico del Hospital Infantil de Mexico, 1983; 40; suplemento 2: 46-56.
The impact of television on alcohol consumption has received special attention. In 1983, one North American team (18) published some interesting results. First, 8 to 11 year-olds were divided into three groups: the first were shown a programme in which the actors drank liquor, the second saw a show in which no liquor was consumed, while the third did not watch TV. When these children were asked, afterwards, to choose between an alcoholic beverage and water, the choices of the three groups differed depending on what they had seen. Although the authors themselves were extremely cautious in their interpretation, these findings did coincide with the facts uncovered by another worker who had concentrated specifically on this issue - C. Atkin (19, 20) - and by others such as L. Tucker (21) and D. Singer. In an article in "Adolescence" in 1985, reporting on a study of 394 adolescents, Tucker pointed out that, as predicted by the hypothesis tested, heavy consumers of television drank significantly more alcohol.

In conclusion, two contrasting statements may guide us: one was made in 1979 by the key health authority in the USA. Julius Richmond, who emphasized the major role that may be played by the medias, by creating a social climate conducive to deeply personal decision-making in health matters, while the other, by Prof. P. Royer, points out that there seem to be "harmful long-term effects of television, which develops certain very basic behavioural patterns that we are unable to quantify and compare with other social, economic and cultural factors and with the other medias. They are of such great potential portent, however, that paediatricians must be familiar with them, pay close attention to their expansion and be able to inform parents and to take preventive action".

This reminder was echoed by D. Singer (22) in an excellent review of the literature, entitled "Alcohol, television and teenagers". It spells out a rather unquestionable fact, but one which should be handled with all the necessary caution. Following a study of 486 adolescents, Tucker claims that those teenagers who watched less television were more physically fit, emotionally stable, sensitive, imaginative, open, intelligent and self-confident, and less frustrated and tortured; they also resorted less to drugs and alcohol. It is important to emphasize, even more strongly than he himself does, that there is not necessarily a causal relationship between these facts.

Because television is so potent, it can be an essential tool for the development of education for health action. This is true both for the industrialized countries and for developing countries, as illustrated by the campaigns to promote immunization, breast-feeding, general cleanliness, etc. Two rather recent examples have clearly shown how valuable this type of televised campaign may be, and evaluations have shown a definite improvement in vaccinal coverage in Columbia (1986) and India (1988).

However, it is no doubt important to keep in mind the fact that the information broadcast in this way must be perfectly controlled if negative effects are to be avoided. And above all, if education for health is to achieve truly lasting results, there must be a harmonious interconnection between the sensitization campaigns broadcast by the mass medias and face-to-face preventive action with a long-term perspective.
CHILDREN'S RELATIONS WITH TELEVISION*

EPIDEMIOLOGY

Television is no longer really "advanced technology" any more. It began to invade homes in industrialized countries in the 1950s, and much has been written about it since then (Himmelweit's work, in England, dates back to 1958) (1)!

While one may have the impression that everything worth saying has already been said on the subject, a look at the literature, even at the international level, soon makes it evident that very little is actually known, despite the mountain of excessively experimental research and overly polemic books! Even researchers are occasionally accused of not applying strict scientific reasoning, and of turning the discussion into a partisan debate or are accused of collusion with the companies that produce TV shows. The most serious enquiries often arrive at quite inconclusive results, such as those found by Schramm (2), who claims that while a certain type of television may be harmful for certain children, under certain conditions, it may be beneficial for other children, under other conditions, and for most children, under most conditions, most programmes are probably neither harmful nor beneficial.

Children's relations with television are of concern to everyone in contact with children, including, primarily, their parents of course, but also health workers and educators, to whom many parents often turn for an enlightened judgement as to their child's best interest, since they hear the most varied, conflicting opinions on this issue.

Supporters and opponents of television clash regularly. The former view television as "a window on the world", especially for children living in socially and culturally disadvantaged environments. Conversely, the latter insistently expose the negative effects of television on children's physical health and intellectual, psychological and social development. Their warnings are especially aimed at the impact of televised violence and the eventual role of certain shows in the socialization process, particularly when the messages conveyed are not coherent with the models and norms fostered by the family and cultural environment in which the child is raised. The young viewer living in a developing country and flooded with shows "from elsewhere" immediately comes to mind, of course.

Can we settle this controversy? Definitely not! All we can do is attempt to contribute to the debate, and look for those factors which will play a decisive role in children's relations with the small


* By Sylvie MANSOUR
screen, so as to develop a number of analytic tools which may usefully be applied to concrete situations.

The first concrete situation to be considered, and which relativizes the impact of television, is how well equipped a country is in TV sets, how much viewing youngsters actually do - not always a measurable fact - and under what material conditions.

While the number of sets may be relatively accurately evaluated in industrialized countries (97 % of French children have access to at least one TV set), this is not at all true of other countries, especially when many sets are imported illegally. Tudesq (3) gives some figures for Africa: “Their distribution is extremely variable from one country to another (61.1 % of households are equipped in Kinshasa, 82.6 % in Abidjan) and within a given country, depending on family income (100 % in the affluent class and 46.5 % in the most disadvantaged group in Abidjan), as well as between city and country, where electricity has not necessarily been brought in.”

Even in industrialized countries, so partial to statistics and surveys, there is no guarantee that estimations of the amount of time spent daily watching TV are reliable. While the figure of 2 1/2 hours a day is advanced for European youngsters, the validity of these estimates cannot be taken too seriously, since they are based on surveys of parents and children, all of whom have good reasons to exaggerate or minimize the amount of time spent at the TV. Furthermore, the fact that a set is turned on in the room does not mean that the child is paying attention to what is being shown on the screen!

In those countries, there are television programmes available around the clock, with many shows for children (and sometimes even a special cable network entirely for children), whereas in others, where local programmes are only broadcast several hours a day, and contain few programmes for children, young people do not have many opportunities for contact with the small screen: “In 1984, children’s shows represented 13 % of programmes in Zimbabwe, 15 % in Kenya, 10 % in Nigeria, 9 % in Senegal, 7 % in the Ivory Coast. Programmes for young people represented 5.7 % of all shows in Zaire in 1989 (4).” Be this as it may, reflection on the subject should not restrict itself to “children’s shows” in different countries, since it is well known that from age 7-8 on, children also watch other shows.

Aside from the crucial question of the material equipment and the times of day at which television is broadcast, studies in industrialized countries have shown that televiewing also depends on a number of other variables, including age (with a peak in viewing toward 11-12 years and a slight decline at adolescence), season

(4) Ibid 3.
(heavier consumption in autumn and winter) and the family's sociocultural level (in the hypothetical case of a same number of TV sets, children from socioculturally privileged settings have more opportunities to spend their leisure moments at a variety of activities - reading, listening to records, sports, family outings, etc. - which help them to take their distances with respect to what they see on TV).

In addition, it is easy to see the importance of the context in which youngsters watch television. A child who is all alone in front of the set, at home, does not perceive a show in the same way as one who is with other children, or the whole family, or again, amidst much of the village population gathered around the community's only set: the verbal and non-verbal reactions of the co-viewers then serve more or less as mediators.

These preliminary remarks aside, what landmarks are available to help assess the impact of what children are shown during their televiewing hours? We will first discuss the impact on intellectual development, followed by psychological and social development.

The debate over the impact of television on children's intellectual development has been complex, and draws on the cognitive theory of mental development. We will not go into these highly technical points (see the chapter on Images and the imagination: cognitive development), but a number of the practical conclusions reached by this research should be reviewed.

Although young people mostly perceive television as recreational and entertaining, they do also expect it to broaden their scope of knowledge, and it unquestionably does fulfill this role. It is a fact that 10-11 year-olds, for instance, want to learn about animals, outer space and medicine, while adolescents are interested in scientific programmes. Practically, though, they do not necessarily see shows of that type, often because television does not take children's learning paces into consideration.

Many countries around the world have experimented with educational TV (in France, essentially between 1965 and 1982). Often, even in developing countries, the financial effort required to set up a television network was only consented because the goal was to set up an exclusively educational television (with programmes for schools and others aimed at village communities). Some of these experiments are still in existence, but many have been abandoned. To be really effective, they require considerable investments and tremendous efforts at collaboration between specialists in television and workers specialized in childhood. Furthermore, experience has shown that "educational" shows are mostly "educational" when the information provided by them is relayed by adults, be they parents or teachers. The impact of a show such as Sesame Street, for instance, (which started in the United States and has been copied in many countries), has finally been found to depend to a large extent on the spontaneous involvement of mothers, and on the degree to which they reinforced the learning process pro-
Language skills

When discussing the impact of television on children's language skills, it should be noted that the language employed on TV tends to be out of step with everyday speech patterns. This is particularly true in those countries where there is a difference between the language spoken in everyday life (the dialect) and the literary language, as is the case in Arab-speaking countries, for instance, or in those countries where a national language is spoken by a minority of the population, whereas the majority speaks a number of very different local languages. In those countries where no such problem is encountered, television does not necessarily enrich children's linguistic skills, since words need not be used for descriptive purposes when images are present (and are reinforced by music, which also attempts to express emotions), and dialogues with facial expressions and mimicry replace the subtleties of storytelling. More fundamentally, it is important to keep in mind that although imitation does play a major role in language learning, if children are to learn to speak their messages must receive a response. Their desire to speak is above all a desire to communicate.

So, even if television is potentially a source of enrichment for children, it is in no way a cure-all, susceptible of compensating for the inadequacies of the educational system without having to correct them, and able to make children into super-citizens. Above all, it can only do its best when the information it carries is relayed by adults who both motivate children and help them to restructure what they have learned as they go along.

The fact is that research on the impact of television on children's psychological and social development has concentrated primarily on the effects of televised violence. It is therefore important to review findings, and the reader should bear in mind that a number of variables are involved and must be taken into consideration in any analysis of these effects.

First of all, we must attempt a definition of what is meant by violence and aggressiveness. Although some agreement may be reached on the definition of "very aggressive", "neutral" and "pro-social" films, as they are called in the English-speaking countries, it is not always easy to rate a film or show for its degree of violence, on a continuum ranging between the two extremes. A number of teams of researchers have attempted to refine the indicators used to measure violence (5). In any case, it should be remembered that violence is not limited to scenes of fights (whose rough-

Maturity

The intellectual and emotional maturity of TV viewers depend on their age. It is not at all surprising, then, that small children (and 4-6 year-olds in particular) mix up what they see on TV cartoons and films, their real-life personal experiences and their dream-world. This is not only because the animated image is especially evocative, but also, and essentially because of the instrumental immaturity which is characteristic of children of that age (their language skills, conceptual thought processes and memory are still developing). Similarly, any attempt to predict what reception the child will give to a TV show must take the natural history of fears, which occur throughout children's development, into consideration. Canter and co-workers (7) tell us that research on children's fears in general indicates that small children's emotional reactions are more frequently linked to the concrete, immediately perceivable features of a stimulus, whereas older children tend to be more easily upset by abstract qualities. A film on unemployment and social outcasts, or on nuclear holocaust, for instance, may produce severe anxiety in an adolescent whereas it will not move a six year-old who, in turn, will be strongly impressed by a child-kidnapping.

Family dynamics

and heavy reliance on television should not lead us to overlook all of the other potentially explanatory factors involved in the violent behaviour of a given child, why he/she tyrannizes his/her parents, why one adolescent attempted suicide and some other teenager became sexually active too precociously.

At this point, we must discuss the pattern that develops in some families, where parents feel that the situation has gotten out of hand, and tend to relinquish their authority: they stop making any attempt to control any aspect whatsoever of their children’s TV viewing habits (be it the schedule or the content of the programmes watched). It is not our role to accuse them: there are surely all sorts of good reasons for what has happened (personal, family and workplace problems have no doubt piled up). Their resignation may in fact be only temporary, and correspond to a period of family crisis. When this is the case, they are often seen to resign themselves to many other things in addition to television, and, for example, to lose control of recreational activities in general, schoolwork, friends, and the amount of sweets the child eats. If the child plunges head first into this vacuum and becomes a frenzied viewer of TV, some people will contend that television is to blame, and that its devious powers bewitch children and lay the way for juvenile delinquency.

No, of course, the explanation is not that simple. Frustration and emotional starvation are definitely experiences that pave the way to juvenile delinquency much more surely. Children's relation to television should always be resituated within the context of the child's emotional, cultural and socioeconomic environment.

To briefly sum up the impact of television violence on children, as it has been described in the literature, three possible levels of impact may be described:

- behaviour: in children aged 7 or over, in particular, violence on television may increase the child's aggressiveness, at least temporarily;

- attitudes, perception of the world and value system: there may be a loss of sensitivity to violence, with the risk that it will be perceived as something normal. Reactions to violence are then dulled;

- emotions: television may generate anxiety (particularly in children under age 7); it is more or less intense and limited in time, and may be rather unpredictable.

Another controversy has divided scientists: how does television affect the socialization of children and adolescents? A. Percheron (8) has given a twofold definition of the concept of socialization: "The learning process by which, starting in earliest infancy, individuals assimilate the behaviour appropriate to the roles they will be called upon to play, and the transmission by society to each

individual of the norms of the group and of society as a whole. Does television do too much or too little in this respect, or does it do it wrong?

The roles played by children successively or concomitantly are situated in increasingly vast arenas, starting with the family and going on to englobe society as a whole. Does television, by taking up so much of children’s time, deprive them of many other opportunities for socialization, such as play with peers, outings and extracurricular activities? Further, how do children integrate the differing value systems propagated by televised messages? How do they conciliate them with their family’s value system?

Some partial responses to these questions may be suggested.

It goes without saying that when a child watches so much television that he/she is almost constantly in front of the TV set, his/her personal experiences will be increasingly limited: you can’t learn social roles from (fictional) heroes only. The importance of play should be stressed, here - building games, games of skill, games with rules, fiction-playing - all of which contribute considerably to physical, intellectual and social development, and to the development of the child’s personality. If leisure time is too systematically filled by television, there is the risk that the child will become accustomed to relying on others for his/her recreational activities, and will no longer be capable of discovering his/her inner resources, and of achieving autonomy.

TV heroes (irrespective of whether their value system is altruistic or not) tend to have the greatest influence on the more fragile children. This does not mean that their impact is limited to easily identifiable at-risk groups such as children living in particularly disadvantaged settings or in broken homes, the emotionally disturbed or juvenile delinquents: there is nothing in children that is solidly structured, since they are going through a gradual maturation process. First of all, the younger the child the more fragile and dependent he/she is, and secondly, every child, in the course of slowing gaining autonomy, necessarily experiences crises during which he/she is more fragile.

As children grow, and especially as they approach adolescence, they look for landmarks, norms and models on which to base their interpersonal relations and their sexuality. Often they cannot or no longer want to take their family as an example on which to base their own normative conceptions, and are then apt to be more passive receivers of the models propagated by the medias. As T. Anatrella (9) writes: “It is a fact that the models extolled by the medias have a compelling influence on the sexual representations which serve as ideal references, on the basis of which individuals perceive themselves as normal or abnormal. This perverts and modifies the ideal... A person who is unable to express what is going on inside him/herself will use images seen on television or in

a moving picture, or the content of novels, as models; without including any reflexive personal elements, since his/her personality has no mature self image." Even the most superficial analysis of TV shows in industrialized countries reveals that the image of sexuality (often linked with violence) conveyed by serials, clips and commercials provides an unsatisfactory response to adolescents' anxiety-ridden questions. The careful avoidance of any sexual allusions would not be a better solution, however, and would not help adolescents become adults capable of enlightened personal decision-making.

The issues raised in this respect are even more acute in the context of developing countries, where children and adolescents are generally mostly exposed to imported shows, which constitute the backbone of the national television broadcasting (often for financial reasons). "Since televiewers, and especially the youngest ones, definitely tend to identify with the heroes they see on TV, they will be inclined to identify with heroes who are foreign to the receiver country. Furthermore, the values conveyed by the programmes may conflict with local values (10)." Children and adolescents (and sometimes even adults) may well find themselves in a rather untenable situation. Another author, N'Sougan Agblemagnon (11) has this to say about the situation in Africa : "Even more so than in the West, the mass medias create problems for African children under twelve : the problem of references, of content, of reactions and influences, the problem of models... At first, the images of traditional women and of "different" women conveyed by the mass medias are perceived by the child as a novelty... but the chaotic introduction of strange patterns may produce a conflict between differing moral values, as a result of which the traditional value system prevailing where the child is being raised may be relegated to the background."

While it is up to parents and educators to constitute pressure groups and to exert some control on the scheduling of shows on the national network, the proliferation of parabolic antennas and of videoscopes makes their effectiveness rather illusory !

The role of television and other mass medias should not be over-dramatized, however : "Television is doubtless at one and the same time cause and effect, both a reflection and an accelerator of the erratic behaviour patterns of a fragmented and rapidly changing society which is in need of fixed landmarks," as S. Gharib (12) points out in the case of Egypt. In both Northern and Southern countries, changes are taking place in spite of, in conjunction with, before, after and outside of the impact of television. Here again, perhaps the latter is too often simply a scapegoat.

Nor should we overlook the fact that the socialization process (or in other terms, the child’s acculturation) is not unidirectional. It is a constant combination of assimilation and accommodation, which, in the case of the impact of television, means that two apparently contradictory processes are at work simultaneously.

Children tend to assimilate the messages conveyed by television. However, research has shown that television’s influence on children is greatest when its messages are congruent with other information picked up in the environment: children do not imitate everything they see, but they tend mostly to imitate those elements that agree with their family, school, culture and personal experience. This may be illustrated by Cordua’s demonstration (13): an experimental protocol was developed in which children were shown a film depicting a couple, composed either of a male doctor and a female nurse or a woman doctor and a male nurse, following which the children were asked what the film was about. Most 5 year-olds re-established the prevailing social hierarchy (male doctor, female nurse) even if they had seen the other version of the film. Children who had already been in contact with a woman doctor were less inclined to do so.

Last of all, it seems important to point out that television may be a good way of teaching children to be tolerant and to respect others, by showing them families and cultures with different customs and ways of life.

When discussing the impact of television on the socialization of children, it is easy to see that the questions involved extend far beyond the small screen. What does socialization mean? Does socializing children mean making them apt to adjust to present-day society, or to tomorrow’s world, or to some ideal society based on a different value system? The debate on television may (and should, at times) be turned into a debate on the culture of democracy, “cultural imperialism”, civic education and children’s rights. It may be very difficult to come to a conclusion, and to an agreement (even within a single family!) as to what television should communicate. It should be easier, and more constructive, to come to an agreement on what influences children should be shielded from. It is up to those people who work with or for children to shield them from whatever is shocking to local common sense and ethics, and this includes programmes based on violence, abominations, pornography, stereotypes (be they sexual typing or related to colour, religion, disabilities, differences of any sort, etc.) and more generally, anything which gratuitously amplifies their anxieties and uncertainties. An objective of this magnitude can only be achieved through the combined efforts of people working for television, teachers, specialists of childhood and families.

IMAGES AND THE IMAGINATION:
COGNITIVE DEVELOPMENT*

In France, the question of the relationship between children and television - raised by the press at regular intervals and reiterated in official documents issued by the ministry of Education - remains controversial, for the most part. When research and thinking on this relationship is viewed calmly, however, the conclusions are not at all unambiguous.

For this reason, it is now high time to do away with the mistaken ideas which owe their survival to hasty interpretations, to inform parents correctly, and to join in with a number of TV consumers' associations in advocating the enforcement of an ethical code in television programmes, and especially in programmes aimed at youthful audiences. I agree with the idea that the defence of freedom and democracy should not serve as a pretext to allow television free rein over what it shows, without any sort of professional ethics.

I would personally like to attempt to clarify a number of points on the educational aspects of television in particular, on the basis of the most serious research available.

A general review of some points which are now uncontrovertible will be followed by a discussion of the comprehension of the language of television, the relations between real life and imaginary worlds and the differences between the attitudes of televiewers and of readers.

Next, I will deal with two aspects of the question which should definitely be given further thought: the effect of television on certain changes in the concept of childhood, and the complexity of educating parents about children's relations with television.

Television is frequently accused of making children aggressive, preventing them from reading and reducing their ability to think.

There are indeed correlations between children's behaviour and attitudes and the fact that they watch certain types of TV programmes, but there is no proof whatsoever of a causal relationship. It seems much more appropriate to reason in terms of reinforcement or to see TV as revealing of pre-existing attitudes. When family members do not know what to say to each other, watching TV is a good way of filling the silences, or of avoiding painful discussions. When a child is lively and curious, he/she will bring these qualities to the way he/she views television, whereas a shy, uncommunicative child will retreat into an imaginary world where no effort is demanded of him/her. This indicates how complicated the study of attitudes really is, and the many individual and collective variables that must be taken into consideration.

The tension between a mass communication system and a private reception system is characteristic of broad-based television net-
works, and it contributes to social integration, personal development and the formation of a collective identity (1).

There is frequent evidence that family values and the rules imparted by education as well as the limits imposed by social life all act as regulators, which minimize or modify the presumable effects of the medias. This means that any simple, unequivocal, nuanceless interpretation in fact oversimplifies the situation and is therefore partially false.

Research considering the complexity of the televiewer's relations with television, and attempting to determine the numerous factors susceptible of affecting the viewer's behaviour is no doubt the most interesting work on the subject.

The typical cliché: children sitting or lying down in front of a TV set, in a bluish haze, their eyes widened in a fixed gaze. No explicit caption is needed: this picture of the young viewer is published so regularly that it now functions as proof of how television fascinates small children.

In actual fact, if children were that fascinated by the small screen, they would continue to concentrate on it irrespective of the contents shown. This is not the case, however, since children's attention dwindles as they cease to comprehend: if the message becomes too complicated, or conversely, if the images are no longer found interesting, children stop paying attention. The attention span of a twelve month-old child rarely exceeds one minute, partly because of an extremely low level of comprehension at that age. A four year-old is capable of concentrating on something for about ten minutes, because he/she is then able to identify some of the elements shown, and to follow the action to some extent. Gradually, through increased familiarity with the small screen, the child learns to distinguish those parts of the image and sound track which identify a show or a character, and make the action comprehensible. As comprehension is increasingly refined, the attention span increases. When a child is attentive and concentrated while watching television we can be sure he/she is attempting to understand, and is mentally active and working at sorting out, integrating, assessing and interpreting the information received. This is a very good thing, but adults tend to underestimate the mental activity involved here, firstly because they consider television language as easy to understand, and secondly because the shows so intently watched by children are often judged uninteresting.

As for the former point, it is important to note that it takes about ten years for children to acquire the skills required for the comprehension of a televised message in the context of home viewing exclusive of any specific learning process. This lengthy period of time is indicative of the complexity of the aptitudes to be acquired!

The second point involves adults' judgement as to the quality of programmes for children, of which they generally know practically nothing, concretely. Although some programmes may definitely be considered poor, both in content and in conception, they should not overshadow all those entertaining or documentary shows which are very rich. It is true, however, that parents generally do not have many opportunities to refine their knowledge about children's shows and to achieve an informed opinion. Most of the time, they are too busy to watch television with their children, and they cannot learn much from the TV magazines, which rarely describe the content of shows for children, or devote a few lines or an article to their content and even more exceptionally give a short, critical analysis.

And yet, if they shared their children's experience with television, parents might become aware of how much of an effort they are making, and through discussion, help them along this enriching road.

As we know, until the age of about six or seven, small children perceive the world through their own imaginary productions. Television cannot fully play the role of a window on the world as long as the child is not able to clearly perceive the boundary between what is real and what is imaginary, since he/she is unable to effectively integrate the TV images in a reference system grounded in the real world. When a child is shown the picture of an object, the reference to a reality is obvious for anyone who is already familiar with the object and can identify it. If this is not the case, the child may very well conceive of the object as not existing anywhere else but in the picture. It is only by learning, and repeated contact with different pictures of the object, that the child will then finally realize that it is a part of the real world.

The status of the pictures shown on television is even more complicated. Aside from the case of cartoons, all television images refer to something real, which is either recomposed to achieve a fiction of some sort, or simply restituted by the eye of the reporter's camera. It is only through the comprehension of the codes of representation that the child will gradually come to differentiate between the various statuses of the image with respect to the referent, and will be able to assert that what is being shown is true, or is only make-believe. Certain programmes are more apt to be misconstrued than others: some films contain journalistic sequences, for instance, or narrate a real-life story.

There is also the question of commercials. At age three, children are already capable of recognizing those formal characteristics that distinguish them from other shows. This does not mean they are not convinced that the situations shown are real and true: they are disappointed, then, when they discover that they have not grown spectacularly strong after eating their cottage cheese or fishcakes!
Reality shows are another particularly ambiguous category. What is the status of these fiction-journalism shows, in the eyes of children and adults? The protagonists’ roles are actually played by actors, the action is completely reconstituted, and yet it is contended that these documents are real. In these not-quite fiction, not-quite reality productions, everyday actions become heroic acts, individuals turn into heroes, and life becomes a spectacle.

Educational cartoons raise another problem as to the distinction between what is real and what is imaginary. Children recognize the specific features of cartoons at a very early age, since the referent is a drawing rather than an object or a real person. Cartoons are therefore more immediately connected to the world of fiction. Confusion then sets in when these cartoons claim to communicate information or knowledge.

How can a child determine what constitutes information about the real world, in contradistinction to what is humour, or simply narrative fiction? Such differentiation is easier for children whose references in the real world are rich and varied, who are accustomed to verbalizing their impressions and to receiving responses from the adults they encounter. This is unfortunately not the case of most children, for whom television is a way of filling moments of loneliness and the lack of places for play.

So, despite their forceful reference to reality, television images do not help children to develop their conception of the real world. It is only once the latter has been somewhat structured (starting at age five or six years), and when the child has achieved a sufficiently fine comprehension of TV language that he/she will be able to use the reference-images communicated by television to nourish his/her vision of the real world.

There is no doubt that television enables children to gain access to the imaginary world of story-telling without having to depend on adults or to learn to read.

This may be viewed as alienating the child from the written word, in that it undermines the latter’s supremacy, and to some extent makes it less necessary. Quite fortunately, many children continue to be attracted to reading and writing, and I have often noted that my pupils assimilate their desire to grow up with the pleasure of being able to read. For these children, the written word continues to be attractive, and words are still magic. Conversely, disinterest in reading is often linked with resistance to growing up, and to an unconscious rejection of the adult world or the prevailing cultural models. Often children from disadvantaged backgrounds or of foreign origins are seen to reject reading, and to cause their own failure at school; this seems to be their way of expressing their refusal of a society in which they cannot achieve any recognized position, or in which they see themselves as outcasts. Far from being the cause of their lack of interest in reading, television affords a compensation, and a refuge. It is a means of being in touch with one’s dreams, and with a certain form of knowledge,
outside of school's demands and of the social pressure with which they are unable to cope.

The non-recognition of these children's experience of television is equivalent to a reiteration of the rejection they experience, and this is why schools must imperatively integrate television, in one way or another.

The most common way of doing so involves its use as a source of documents. However, television may be an excellent way of reconciliating children with reading, if necessary. There is actually much writing on television: there are titles and credits, captions and advertising slogans. Furthermore, scenarios for films and cartoons are often based on written works, while TV programmes generate other written documents: some families hardly read anything but TV magazines.

Maguy Chailley has placed considerable emphasis on the need for schools to take TV culture into consideration, to avoid "widening the gap between the objectives of schooling and the possibility, for those who attend school, of assimilating these objectives (2)".

There is much talk about the number of hours children spend in front of the TV set, but not enough is said about the type of programme viewed and the viewer's attitude. Children are eager for information, and they look for it in books and magazines as well as when watching television. Those who tend to be attracted mainly to escapist entertainment (serials, cartoons) are the same ones who live in an environment that discourages reading, who practically never are given a book as a gift, and who have few or no books of their own. For them, reading is not a pleasure at all, but rather, an obligation imposed by school.

For children who are attracted to reading, television may indeed reduce the amount of time spent with books, but the two eventually become complementary. Conversely, television fills an empty spot for children who experience great difficulty in learning to read, for any of a number of emotional, intellectual and/or social reasons.

Television confronts children with representations of the adult world. Through serials and journalism, but also cartoons designed for youngsters by more or less well-meaning adults, they are faced with violence, sex and adult phantasies, values and stereotypes, along with social and political issues.

Adults are no longer in control of the information and values transmitted to their children. This considerably modifies parent/child relationships. The latter have gained a degree of autonomy with respect to adult knowledge, while their parents have lost some of their authority. Furthermore, cognitive psychology and psychoanalysis have taught us that children are able to understand any-

thing provided the explanation is simple and in consonance with their developmental level. No more "baby talk", we now speak to infants as though they were miniature adults. No more white lies or avoidance of crucial problems such as sex, death and social injustice.

In the industrialized countries, children of all social classes are definitely listened to more and taken more seriously. Their opinion may make the difference in some adult decisions or choices. Children are encouraged to argue and bargain, and as will be shown further down, this may reach the point where children dominate their parents. Their safety and their rights are increasingly taken into consideration.

There is no doubt that today's children are more involved in the adult world. A striking recent example was the mobilization of children, through the schoolrooms, to combat the famine in Somalia, which famine was the outcome of adult failures and fanaticism.

Paradoxically, children are also increasingly protected. Increasing proportions of their free time and space are occupied by a socially organized activity. From parents' point of view, children are definitely safer in front of the TV set than in the streets. An observer of the French countryside will note that surprisingly few children may be seen in the fields and woods on a Wednesday afternoon, when school is out. For the numerous children who do not have any large play area at their disposal, television becomes the best way to let their imagination loose. Just as television confronts children with images of the adult world at an early age, then, it also protects them concretely, physically, from the outside world.

While television is not the cause of current changes in the concept of childhood, it is a part of this cultural evolution, and it is worthwhile, in this respect, to analyse family relations around television.

A study of the many aspects of television shows that it is neither good nor bad, but depends on how it is used. There is nothing natural or spontaneous about the attitudes of youthful viewers, they are shaped by education. It is parents who place children in a TV-viewing atmosphere from early infancy, and turn them into viewers, and who, later, wonder what they can do to limit the effects of television.

Here too, television works as reinforcement, and accentuates the educational problems present in some families. It has been found that parents for whom talking together is the basis of education succeed in integrating TV in family life, and in exploiting its informational, educational and entertainment functions, whereas a passive attitude toward television is correlative to a passive attitude with respect to education in general.

How can parents respond; and what should they do when their child wants to watch TV at night, or to see a detective story they know is violent, when he/she asks them to buy miniature Ninja turtles or systematically prefers to eat Mac Gyver deserts? They
are sincerely unable to cope with these demands, and end up giving in, or refusing categorically. and the child then shortly resumes his/her nagging requests.

Given the fact that when faced with their children's learning problems, most mothers who have not received a higher education refer to what they themselves had learned, it is easy to understand why they have difficulties in responding to the problem of television. On what basis can they decide whether a show is of high quality, and help their child make choices? How can they help him/her understand what is being shown? How can they establish a dialogue, or help the child to manage his/her TV viewing time?

The fact is that there is no structure to which parents may turn for advice and counselling, or simply for someone with whom to talk. It is perhaps teachers who parents consult most, and who they trust most. And teachers, in turn, are well aware that their work with children is much more effective if it is understood by their parents. But can teachers reasonably be expected to educate parents as well?

Serious thinking about how television pervades our everyday life is valuable in that it reveals that much broader issues are at stake. In my opinion, education within the family is essential, and should be given more attention.
CHILDREN AND TV IN ASIA*

Children are the most avid consumers of television programmes, and television is one of the most pervasive influences in the lives of children. Asia, with the largest number of children in the world - almost 500 million - has therefore reason to be concerned. Programme makers, educationists, child development specialists and parents have pointed out some of the negative aspects of the medium - violence, stereotyping, and consumerist behaviour.

While Asian countries differ greatly in many aspects, with regards to children and TV, many common issues can be identified. These can be summarized into two categories: technical and general (1).

These are problems that relate to production, creativity (or lack thereof), resources, etc. These can be summarized as follows.

Many of the producers currently developing children's programmes do not have adequate training in producing materials for children. But there are some encouraging signs - Japan's NHK and AIBD have been running training courses. However, these opportunities are limited to only a few participants. Also owing to cost and time constraints, these programmes are production oriented and may not have adequate components dealing with education and development needs of children.

Asian educational programmes for children tend to fall into formula. On the one hand there is the "Sesame Street" formula and on the other, the usual format of an adult host acting as "teacher". The lack of creativity is closely linked to lack of training and lack of exposure to good children's programmes elsewhere in the region. A step in the right direction is the ABU's move to establish a children's TV programme exchange.

Programme makers are not always aware of the optimal potential of even basic video equipment. Those who have been exposed to foreign - particularly western and Japanese - training, sometimes find themselves unable to cope with the "primitive" equipment they have to work with in their national networks. One possible solution - local training with emphasis on the creative use of existing or more low-tech equipment.

Closely related to the problem of creativity is the predominance of western programmes on Asian networks which influence the perceptions of local producers on what is a good quality children's programme.

A common complaint of producers is that children's programmes are expensive to make. Networks are unwilling to expend more funds for children's programmes because they do not yield returns on investments. It is more economical to buy old syndicated cartoons and reruns. Production cost is also the excuse usually given

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* By Vijay MENON and Gordon HOGAN

(1) Valbuena VT. Children's Television in Asia: an overview.
by network executives for supporting family programmes instead of children’s programmes, since they point out, children watch adult programmes anyway.

Aside from these technical problems, programme producers have to contend with general issues in children’s TV.

Network policy makers, educationists and others in Asia continue to debate this question. There are those who want to use TV mainly for teaching syllabus-related subject matter and those who want to exploit its potential for enriching life experiences. Some countries whose TV networks are government-operated have tried doing both, with mixed results.

One of the most common complaints of TV is the amount of crime and violence found on TV - whether in children’s or adult programmes. For example, in Malaysia in 1991, of the 43 programmes screened for children, only two were local. Of the 41 imported programmes, 24 could be classified as violent (most of them cartoons) (2).

There is growing criticism of children’s programmes which advertise products for children during commercial breaks, or which by themselves are disguised commercials for various merchandise designed for children. They create a child market that keeps growing and keeps parents wringing their hands in anguish. Mutant Ninja Turtles and Sesame Street merchandise flood many markets in Asian capitals. Sesame Street even has an expensive, Broadway-style touring show that also serves as venue for promotional sales of related products. Network officials can only say, lamely, that these advertisements pay for the show.

Sometime in the 70s, a group of concerned Filipino women professionals in the media who called themselves WOMEN (for Women in Media Now), successfully lobbied against the continued broadcast of a Japanese animated robot series because of the unusually high demand (and frustration) it created among the young viewers for “Voltes V” toy robots. Each toy robot cost Pesos 500-700 at that time, a figure that was beyond the reach of most of the viewing audience and/or their parents. Mounting complaints from parents helped WOMEN in their lobby to have the show cancelled. In the 80s, however, the Japanese animated robot shows, featuring more fantastic special effects, came back with a vengeance.

Most TV networks have either formal or informal requirements to provide programmes for children. Many, however, fail to achieve even minimum requirements. In this respect, the Australian experience provides useful insights into the positive and negative aspects of regulation.

In Australia, all major networks broadcast nationally. The Australian Broadcasting Corporation (ABC) and Special Broadcasting Service (SBS) are both government-funded and neither comes under the

(2) Assunta M. Television and Children: the Malaysian situation.
Brief survey of Asian networks

responsible of the Australian Broadcasting Tribunal. There are three major commercial networks which are subject to the Tribunal.

In 1977 the Tribunal established a system of C classification. Basically there are three levels of quotas. Each network must broadcast 260 hours of C programmes a year, during certain time bands set down by the Tribunal. Half of these must be first run Australian products, the rest can be from overseas. Secondly networks must show the equivalent of 16 hours per year of Australian drama for children. Thirdly, networks must broadcast 30 minutes of P (preschool) programmes each weekday. All these must be approved in advance. The Tribunal then decides whether to grant C, C drama or P classification to programmes submitted. It is important to remember that rejection for C, C drama or P classification does not mean that a programme cannot be shown. All it means is that it cannot count towards the network’s quota for children’s programming.

Even with regulation, children’s television in Australia is not a high priority. It is not considered the glamour area for writers or producers; it’s hard to raise finance and is low in the pecking order of network priorities. Regulations protect from the worst excesses, but unfortunately it means that the minimum becomes the maximum, with few networks voluntarily exceeding the quotas set down by the Tribunal (3).

It would, however, be incorrect to paint a completely black picture of children’s television in Asia. Even though the production of children’s programmes varies greatly in quality and quantity throughout the region, there are both bright and dark spots, as a brief survey will show.

In Philippines, one of the most successful children’s programmes in the country is “Batibot”. The programme includes music, simple animation, live action and puppets. “Batibot” started as a co-production of the Children’s Television Workshop (producers of Sesame Street) and the Philippines Government. In the Philippines, some 200 hours are allocated annually to educational programmes for children (4).

In Indonesia, 23 % of total programming is devoted to “educational programmes”, which include children’s programmes. Most of these, however, are not local productions. Local children’s programmes do not seem to be popular among children. In a survey conducted by the Indonesian Child Welfare Foundation, it was found that out of 10 favourite programmes for children, only one was produced in Indonesia (5).

(3) Petre C. Regulation of children’s television : the Australian experience.
In Malaysia, the government-run station Radio-Televisyen Malaysia (RTM) broadcasts about 52 hours of educational broadcasts for children a year (6). TV3, the private station, broadcasts considerably less children’s programmes.

Japan’s public broadcasting network, NHK, is the major broadcaster of children’s programmes in Asia. It produces a whole range of programmes for children of various age groups. About 30 hours per week of animated cartoons are broadcast, as well as about 30 hours of educational programmes (7). In addition, the commercial stations also produce their own children’s programmes, mostly animated cartoons. An interesting point is that many Japanese cartoons and monster dramas have been exported to other Asian countries where they enjoy great popularity, and often come in for criticism for their possible negative influence on children, owing to what is perceived as excessive violence in these productions.

China’s Central Television (CCTV) broadcasts three hours of children’s programmes daily. Half the time is devoted to cartoons from the US and Japan and half to a magazine programme (8).

Korea’s two major networks, Korean Broadcasting System (KBS) and Munhwa Broadcasting Corporation (MBC) have children’s programmes. Both air a six day 20-minute magazine format show for preschoolers. KBS’ three channels also carry educational/instructional and cultural programmes much of which is targeted at children and youth. MBC also has a number of cultural/educational programmes for children and youth.

The Singapore Broadcasting Corporation’s (SBC) broadcasts about 100 hours of children’s programmes annually. The most popular is probably “Aksi Mat Yoyo”, which has been running since 1982. The programme, in Malay, is targeted for 5-12 year olds and features quizzes, song and dance and information segments and is hosted by two children in cat costumes. SBC also runs daily children’s cartoons. In addition, SBC airs the educational programmes developed by the Curriculum Development Institute of Singapore to support the programmes in the school system.

In Thailand, the stations allocate about 16 and a half hours monthly for educational children’s programmes. These programmes include imported cartoons from the US and Japan, audience participation shows and Japanese educational programmes dubbed in Thai (9). The Thai TV industry is a dual system in which media corporations and advertisers operate under legal state ownership. In this system, the state must struggle to maintain its political control vis-a-vis commercial control from the de facto owner of the station. Children’s programmes are probably the worst affected by this

(7) Sachiko Imaizumi Kodaira. TV programs for children : experiences in Japan and future possibilities for international cooperation.
(8) Ibid 1.
(9) Ibid 4.
system. Although new programmes have been created, they failed miserably. A few children's programmes have managed to buck the trend, but the future is not bright. The most popular children's programmes are the imported US and Japanese cartoons (10).

India's Doordarshan allocates 120 hours a year to programmes for children and youth. These consist of both enrichment-type programmes and syllabus based programmes covering regional languages, sciences and community living (11).

Pakistan Television Corporation (PTV) allocates a little over 2.5 % of its total transmission time (about 50 hours a week) to children's programmes. The programmes are aimed at developing moral and social values in children and consist of music and songs, audience participation games and cultural performances (12).

The National Broadcasting Authority in Bangladesh allocates 37 hours a year to educational programmes for children and youth (13). Programmes include song and dance recitals, dramas, traditional stories, audience participation shows and a fortnightly magazine programme.

In Sri Lanka, children's programmes receive the second highest allocation of broadcast time after news, on Rupavahini, the government television corporation. In 1990 this was about 256 hours (14).

From this brief round-up it is apparent that there exists great disparities in the priority given to children's programmes. All countries in Asia provide some time for children's educational programmes and a few give high priority. In terms of quality, here again the result is uneven. Several Asian countries have won awards for children's programmes from Japan Prize and Prix Jeunesse ; but it is also true that programmes produced, particularly in the lesser developed parts of the region, leave much to be desired.

In September 1991, a seminar was held in Cipanas, Indonesia, on "Children and Television". At the end of the seminar, a Declaration on Children and Television in the Asia-pacific was adopted, which on the topic of "Opportunities and challenges in developing strategies for quality children's television", set out the following points:

1. We should have standards to promote more local productions and control/be more selective of foreign programmes. The Australian standard should serve as a basis.

2. There should be more local research done on television violence and children in Asia.

(12) Ibid 1.
3. There should be a local coalition of community groups/NGOs, to monitor and represent views on children's television.

4. Programme exchange: Asia Pacific Broadcasting Union (ABU) is planning to have an exchange programme similar to the EBU.

5. Need to identify and solicit funds for the development of children's programmes through training and personnel exchanges, training of writers and exchange of scripts, training on educational approaches as applied to mass media and research methods.

6. A Children's Film, Television and Video Foundation should be set up in every country.

7. There should be prizes or awards for children's programmes in the Asia-Pacific as a strategy in promoting children's programmes as well as giving incentives to improve the quality.

8. There should be definite and strict standards to monitor and control advertising aimed at children.

9. There should also be efforts made towards having programmes for parents/families.

10. There should be liaison and cooperation among broadcasters, producers, educators and researchers.

11. There is a need for classification system of television programmes so that viewers have an idea on how the shows are rated, for example, for children, for adults only.

This article draws to a large extent on various reports presented at the Seminar on Children and Television, held at Cipanas, Indonesia.
AND NOW, WHAT CAN BE DONE?*

Given the place occupied by television in children's lives today, and even more so tomorrow, throughout the world, concern with the impact of this medium on children's development and health is quite legitimate.

As we have seen, research on the postulated effects of television on children has come to contrasting conclusions. A great many findings do however seem to agree on the fact that television is one of a number of risk factors which may disturb children's health and development. The only definite certainty at which we may arrive is quite explicit: television is above all a tool - an extremely powerful one, admittedly - but still, only a tool. This means that its effects are mostly conditioned by two factors, which may be summarized in the form of two questions:

- have people learned to handle it?
- how is it used?

Actions aimed at optimizing children's relations with television may be structured around these questions. The first one epitomizes the challenge taken up by those people who wish to "teach Mac Luhan as well as Gutenberg", or in other words, to teach children to master audio-visual language the way they are taught to master written language.

This concept of education in the mass medias, applied here to television as a medium, is not a new one. It has been fostered in many countries, often in collaboration with UNESCO, which was a pioneer in this field, and has been particularly active since the early 1970s. The "Active Young Viewers" experiment in France is a good example.

While much thought has been given to education about television, there has not been as much concrete action. For this reason, we found it interesting to publish the experiment in "educating young Brazilian viewers", which is unusual in that it is centred around "research-action-training", as Maria Luiza Belloni, its coordinator, explains further down.

However, the enormous human, material and financial investments required by this programme, the first of its kind, are beyond reach for most people who wish to provide help for the children they care for. While working toward the same objective, they must do so in accordance with the available resources.

Inter-country differences are too great for us to draw an overall picture of the simple educational actions which specialists may undertake in this particular field. Some guiding principles may be defined, on the other hand, and this is the intention of the paths shown in the "10 recommendations for teachers". It is up to the reader to enrich them, and to go beyond this simply indicative list. The second question, "how is it used?" concerns teachers, of

* By Eric CHEVALLIER and Sylvie MANSOUR
course, but probably even more so, parents and other family mem-
bers who are so often disoriented by this extremely powerful
medium which they generally did not encounter as children.

There is no miracle receipt, and here too, the list of “10 recom-
mendations for parents” may be helpful.

Paediatricians, who are major sources of information and advice
for families are also increasingly questioned by parents on this
subject.

Last, there are all the facilitators and participants in informal com-
munity networks, who are essential vectors of information and
socialization. They are probably sufficiently imaginative to take the
proposals which are generally formulated for the formal structures
and transpose them to the informal sector, and perhaps to extend
the original, attractive experiment developed by a Bolivian worker
with “socialization through photography” to the video camera. The
Bolivian programme gave cameras to the inhabitants of some
disadvantaged suburban parts of La Paz, so that they could pho-
tograph each other!

Technological advances, which have penetrated the different parts
of the world unevenly, are inducing deep-seated societal changes:
the world we live in is increasingly technological and less and less
“natural”. People’s relations with this technical environment are
tremendously different from their relations with nature, and require
a specific learning process. In developing countries, characterized
by great social contrasts, not everyone has access to the products
of technology, or at least not to the same extent. In these coun-
tries, technics often tends to widen the previously existing gap
between the children of the elite and those from disadvantaged
homes. Communications techniques, among which television is
seen as the epitome of modern technology, is no exception to the
rule.

In Brazil, television seems to be a “school outside school”, at-
tended by practically all of the country’s young people irrespective
of age and social class, and for some children it is the only school
they know.

In today’s world, the mass medias in general and television in par-
ticular are increasingly influential in the socialization of the up-
coming generations.

Television is extremely instrumental in this process, particularly
through its semantic dimension, in that it provides the significations
(myths, symbols and representations) which fill children’s
symbolic world with fictive images which often have the pretension
of being real. Television also acts as a complement to schooling, in
that it transmits knowledge. Furthermore, the messages aimed at
children and adolescents convey the norms for social integration
and the behavioural models acceptable to the prevailing value sys-
tem. In addition to these symbolic and ideological functions, televi-
sion has specifically economic functions: by influencing consumer
Television as a tool and socialization patterns, creating new needs and promoting the purchasing of certain brands of products, television assures and develops markets.

The seductiveness of television makes it a key socializing agent, especially for children from disadvantaged backgrounds who have no access to other cultural commodities or recreational facilities, and who are more or less left to their own devices by parents whose difficult living conditions leave them unequipped and unable to cope with their problems. This seductiveness is particularly alarming in light of the fact that Brazilian television is in private hands and its only laws are those of the advertising market and the demands of world-wide industrial production.

Television plays a very important part in the everyday life of Brazilian youngsters. Not only do they watch it several hours a day, but above all, they are very enthusiastic about it, and view it as informational, educational and entertaining. On the average, children spend more time watching television than at school. The omnipresence of television in homes and the supposed objectivity of the images make televised messages particularly credible, and this accounts for and in a certain sense legitimates its role in the socialization process.

When analysing children’s relations with the medias, two types of factors must be taken into consideration:

- first, exposure itself, including the time spent viewing TV, which time is lost for other more stimulating activities which contribute to children’s development. This is more a problem of social and family relations than one of communications per se;

- secondly, the messages transmitted - the contents - which are the outcome of the strategies of the cultural and advertising industry at the global level. They are generally not very concerned with educational objectives, and may have more or less negative consequences on children’s development.

The effect of this tool on the socialization process necessarily depends on the setting within which the child is socialized. It seems evident that children and adolescents from culturally advantaged environments, who have access to other cultural references and recreational possibilities are less influenced by television. Similarly, young people whose family is psychologically healthy, who belong to peer groups that meet regularly, or even those who practice a religion, tend to develop more active, critical attitudes toward television.

The socialization of the upcoming generations is a potent factor in social reproduction, as well as an efficient mechanism for social control, aimed at shaping children into socialized individuals. This reproduction takes place through a broad process of transmission of culture, including accumulated knowledge (science, technics, practices), values, representations and norms, depicted to children and adolescents as images and patterns for behaviour.
Children and adolescents incorporate these images and patterns in their everyday experience, in their social interaction with adults and in their peer groups, and they accept or refuse the proposed models, and test their own personal limits. The socialization process is this constant interaction, the outcome of which is a socialized young person - that is, one who is capable of living in a balanced, competent manner within his/her society. During this process, children's personality is shaped through the acquisition of "skills by which individuals learn to speak and act, and thus to participate in the process of mutual comprehension and to assert their personal identity".

The importance of television in the socialization process is further compounded by the structural fragility of public schooling in Brazil, with its material poverty, very short school days and poorly paid, insufficiently trained teachers. With all of these difficulties, schools have now been given another mission: education in the mass medias.

This indispensable, urgent new task is still unknown in Brazilian schools. Both officials and teachers must be made aware of it, but also, research must be undertaken and material produced so that they can undertake it without any special training and without further burdening their already excessive work load.

The programme entitled "Training TV viewers" is aimed precisely at helping Brazil's schools accomplish their mission as socializing institutions, by providing teachers with tools for this new task.

The decision to produce educational material was based on the fact that public schools suffer major shortages: any educational material is welcomed. It must be flexible and easy to use, out of respect for the work and freedom of teachers: the purpose being to sensitise them to the problem by affording them with the best possible conditions under which to do their job.

It should be remembered that television, considered simply as a technique for broadcasting information and even for artistic creation, has great educational qualities which may be harnessed. For young people as a whole, and especially for those who do not have access to other means of information, it is a window on the world, and helps to broaden the horizons of children and adolescents by showing them pictures of other peoples, other cultures and other ways of life.

Let us take the example of language skills: television is simultaneously an enriching factor (by teaching youngsters new terms) and an impoverishing one. It may cause local and regional expressions to disappear, along with in-group slang, to be replaced by the homogenized parlance of the world-wide "kid culture" spoken on children's shows (cartoons, violent serials) and on music programmes, with ties to the toy and record industries.
EDUCATIONAL CONCEPTION OF THE "TRAINING TV VIEWERS" PROGRAMME

Objectives

Specific objectives

The educational principal on which this programme is predicated is the integration of the mass medias in the schoolroom, both as objects to be studied and as educational tools; the aim is to connect up these two previously conflicting discourses, as the only way of securing a unified socialization process and one which is adapted to present and future needs.

The overall objective is teaching children and adolescents to use television actively and critically.

Introducing children and adolescents to the conscious perception and critical discussion of televised messages, so as to develop:

- knowledge of the technical aspects of the production and transmission of messages;
- understanding of the different types of shows and of the organization of scheduling;
- the ability to distinguish between real and fictional elements within messages, and to be aware of the technical aspects;
- understanding of the objectives (consumerism) and of the modes of functioning (persuasion) of advertising;
- understanding of the different ways in which televised messages influence feelings, values, self-image, opinions, behaviour, etc.;
- a critical attitude toward the violence shown;
- perception of the different ways in which social, economic and political events are represented.

These objectives may be achieved through an intermediary objective: sensitization of teachers (especially in primary schools) to education in the mass medias.

The target audiences are children and adolescents, primary school pupils (7 to 14 year-olds) in public and private schools.

The "training TV viewers" programme provides teachers with a multimedia package containing:

- a video tape of seven lessons, lasting 11 to 15 minutes each;
- a pupil's notebook: a complement to the video material, containing additional information;
- a teacher's manual - an activities handbook containing basic information about the programme and suggestions for adequate use of the material.

Since the ultimate objective is the circulation of the material to those schools where teachers agree to develop media-related educational activities, it is important that the material:

- be utilisable as an integral part of the usual teaching activities in certain portions of the primary school curriculum;
- be self-explanatory and easy to use, not requiring any specific training of teachers;

- act as a stimulus for discussions on the medias in general. They will stir interest among pupils, and provide teachers with tools and suggestions so that they may continue to develop other activities related to education in the medias.

The teacher’s manual should be instrumental in sensitizing teachers and training them in the use of the material.

The material is organized into 7 lessons, based on the study of the medium and of its technical characteristics, along with the discussion of certain types of contents which pervade the messages communicated by commercial television in Brazil. The lessons are structured according to certain principles.

Since the objective is to bring pupils to understand the rules by which meaningful televised messages are produced, analysis must necessarily proceed by comparison of the different types of messages. This comparison may use shows of various kinds, a number of shows of a same type, shows produced in different ways, or at historically different periods.

Each lesson makes use of comparison, and the intention is to enable pupils to improve their ability to analyse messages. Indeed, comparison brings out production techniques, as well as the different ways of showing real events, symbols and values, and above all, the way in which the two levels combine to make images meaningful.

The video lessons and the pupil’s notebook take a sharp, humorous approach, designed to stimulate critical reception of messages and to encourage an active attitude toward television by revealing the special effects and tricks used to create TV messages, thus demythifying the “magic” of television and making it less seductive and fascinating by showing the underlying mechanisms.

Since the purpose is to promote education in the mass medias within the usual school framework, it is essential that the material be designed to be integrated in some part of the primary school curriculum. The study of the technical characteristics of television, for instance, can easily be introduced in Social Studies, as a part of the study of means of communication; work on the messages conveying violence and male and female roles can easily be integrated in Communication and Expression courses, etc. Although integration in the school curriculum is an essential principle, other combinations may be developed, depending on the teacher’s objectives and creativity.

The material is conceived for flexibility, to be used in accordance with the objectives and needs of teachers. Although the lessons are intended for use in a given order, they may be delivered separately or in a different order.
School and the mass medias

Education in the mass medias is a type of school activity involving the integrated utilization of all those means of expression and communication made available by present-day advanced technology. This is true both for video equipment and for computers.

A twofold concern should necessarily guide the integration of video equipment: it is a new means of expression, combining some elements of the moving picture, theatre and the plastic arts, but nonexclusive of verbal communication. TV “language” should become a part of school both as an object to be studied and as an educational tool.

Mass communication, or the mass medias, which represent the sum of the means by which it is conveyed, constitutes a specific field of knowledge, which should become a subject of primary school teaching, comparable to, say, literature. It is important to bring children and adolescents to develop a critical perception of the medias and an active attitude toward them, with respect to both exposure time and the substance of the messages.

As an educational tool, video equipment may be a highly effective means of teaching all disciplines, provided it is handled adequately. While it cannot replace the teacher’s educational efficiency, it is extremely instructive, and may considerably enhance the quality of teaching. This is mainly because TV “language” is pervasively present in the lives of children, but also because its use at school furthers communication between teachers and pupils.

If school is to continue to fulfil its socializing function satisfactorily, it absolutely must integrate the “language” and codes of TV in its curriculum, since these foster new ways of thinking, understanding and feeling, and therefore new ways of learning. If schools overlook the importance of these codes, they run the risk of losing contact with the younger generations who have grown up with television, and of losing ground as a socializing institution.

If we feel that it is up to schools to provide the educational process through which children may develop fully, there is no denying that they now have an additional task: education in the mass medias, enabling young people to gain control of the audio-visual language, so that they will not be controlled by it.

SOME ADVICE

The coordinators of this issue on children and television felt it necessary to formulate some advice to parents, teachers and paediatricians, to help them in their task, so that they may teach children to make positive use of this medium.
Ten recommendations for parents

1. Make sure your child gets enough sleep.
2. Leave some time between the end of TV viewing and going to sleep.
3. Make sure the child has varied recreational activities (television, books, sports, play alone/with others, action/fictional play, etc.).
4. Do not allow turning on the TV to become automatic (TV on while the child is playing, reading or doing homework).
5. If necessary, draw up a formal agreement with the child (limiting the number of hours of viewing).
6. Discuss the child’s choice of shows and films with him/her (for instance, set up a schedule of acceptable programmes for the week).
7. Whenever possible, watch the shows with your child.
8. Discuss the shows with him/her.
9. Discover any interests that may have been awakened by a programme, and reinforce them by providing the child with material for exploring them further.
10. Listen carefully for any expression of fears and anxieties elicited by some shows (these should not be a reason to prohibit the films, and thus remind the child of his/her immaturity: make sure these discussions do not lead brothers and sisters to make fun of the child).

Ten recommendations for teachers

1. Help children understand that television is only a representation of reality.
2. Demythify the magic side of television by explaining how it works.
3. Check on children who are tired at school: discover whether the reason is long viewing hours in the evenings, by talking with their parents, in particular.
4. With the children’s help, set up a weekly schedule of shows to be watched (be careful not to marginalize children who do not have TV at home).
5. Encourage collective viewing of certain “educational” shows.
6. Encourage discussions around programmes seen by the children (shaping critical young TV viewers) but be careful not to express value judgements about their choices and tastes.
7. Capitalize on children’s personal experiences (manual work to illustrate a theme, interview with a community leader, etc.) to counteract the over-valuing of TV images.
8. Discover any interests awakened by programmes, and reinforce them by providing children with written material through which to explore them further.
9. Organize meetings with parents, to help them turn their children into wiser TV viewers.
10. Meet with parents, help them to avoid relinquishing their responsibilities as parents, in

Five recommendations to paediatricians

1. Be attentive to families.
2. Do not forget to inquire on the place of television in children’s everyday life.
3. Give some advice on healthful viewing (distance from the screen, lighting, etc.).
4. Watch out for any impact of food commercials on the child’s weight.
5. Relativize family conflicts over television.
Appendix: The “Training TV viewers” programme - An experiment in education in the mass medias (1)

The programme, using video and printed documents, is composed of seven lessons aimed at teaching children and adolescents to make critical use of television. The objective of the “Training TV viewers” programme is to induce an active, critical attitude toward television by helping young viewers to be aware of their perception of televised messages and to discuss these. A kit containing the educational material will be distributed free of charge to at least 150 elementary schools in Brazil. It contains the seven video lessons, a collection of texts for pupils and a teacher’s manual. The objective is to supply schools with instruments enabling them to cope with this urgent new task.

This is a most important programme: not only will it be extended to the national level, but it is doubly innovative in that it is both a research project (on the images and languages of television) and the application of earlier studies (on the role of television in the socialization process), and is also the first experiment of its kind to be implemented in Brazil.

The teaching material involved was conceived and produced by an interdisciplinary student team, with the guidance and participation of professors from Brasilia, who achieved their own objective, which was to train students in the evaluation, conception and production of educational video lessons. The purpose of the “Training TV viewers” programme, in publishing and circulating this material, is to sensitize educators, researchers and officials in the education department to this new task devolved on the schools of Brazil: education in the mass medias.

First lesson: a very special machine - Images as representations of reality and as fiction, from prehistoric drawings to television. Television as an important means of communication in modern society. Information on the technical aspects: production and broadcasting. Relations between the audience and the TV set.

Second lesson: our life with television - The role of television in everyday life: a kind of recreation that fills up free time. Relations with the audience and messages. Structure of scheduling: types of programmes and segmentation of audiences. Features of productions for television.

Third lesson: advertising - Different types of advertising: commercials, political, institutional, marketing. The functions of advertising. Relations between advertising and TV shows. Identification of the different kinds of appeal used by advertising and the relations with different audiences.

Fourth lesson: the magic of television - TV messages as representations of reality and of fiction: what techniques are used to produce meaningful (significant) messages: how to distinguish what is real and what is fictional within these messages.

(1) This programme is supported by a contract between the Foundation of the University of Brasilia and the ICC. Maria Luiza Belloni was in charge of research, with the scientific counselling of Eric Chevallier.
Fifth lesson: heroes and heroines - The socializing role of television. Relations between the male/female stereotypes shown on TV and the socially desirable roles.


Seventh lesson: a window on the world - The good side of television as a tool. Broadening the cultural horizon through information on culturally different environments, as well as through scientific, ecological and art education programmes.

The pupil's notebook - "RE-VENDO TV" - a complementary guide, containing further information to accompany the video material, along with suggestions for discussion of each lesson (35 pages, illustrated).

The teacher's manual - an activities handbook containing basic information about the medias, an explanation of the objectives of the programme and suggestions on how to exploit each lesson (70 pages).
DID YOU KNOW?

• Tuberculosis: an emergency

In the coming decade, tuberculosis will kill over 30 million people if appropriate measures are not taken to prevent its progression. Eight million new cases are recorded annually. In recent years, the figures have risen spectacularly in both industrialized and developing countries: the United States experienced a 12% increment between 1986 and 1991, Italy had a 28% increase between 1988 and 1990, and Switzerland a 33% increase between 1986 and 1990.

According to WHO experts, four main factors account for this upsurge:

- the absence of a public health policy in this field has resulted in the deterioration of tuberculosis control programmes, not to speak of those countries which have purely and simply dismantled them over the last twenty years;

- the link between tuberculosis and the HIV has produced a catastrophic outburst of cases of tuberculosis. It has been proved that infection with the HIV activates tuberculosis in previously asymptomatic persons, by weakening their natural defences, whereas tuberculosis may hasten the evolution from seropositivity to AIDS disease;

- demographic factors are also at work. Children born during the latter decades in demographically expanding regions are now reaching those ages at which mortality due to tuberculosis is highest;

- poorly conceived, poorly managed tuberculosis control programmes have contributed to the development of virulent, drug-resistant strains of tubercle bacilli.

What is perhaps worst is the fact that highly efficient instruments for the prevention and treatment of tuberculosis are now available, but are not utilized.

Readers who are interested in learning more about tuberculosis are referred to issue 196/197 of Children in the Tropics, which was devoted to this problem.
TETANUS

FOR A WOUND

Unvaccinated patient or vaccinal status unknown

Immunoglobulin

+ 1 dose of vaccine

2nd dose of vaccine (1 month later)

3rd dose of vaccine (1 month later)

1 booster (1 year later)

1 booster (every 10 years)

Vaccinated patient

More than 10 years ago

Non-risk wound

1 dose of vaccine

Infected wound(\*) or risk of tetanus

1 dose of vaccine

+ 1 dose of Immunoglobulin

Less than 10 years ago

Non-risk wound

No action required

At-risk wound

1 dose of vaccine

(\*) Wound or burn at risk of tetanus

- wound with dead tissue
- perforation
- contact with earth, dung, etc.
- clinical signs of infection
- wound or burn awaiting surgery for more than 6 hours
PREVENTION OF NEONATAL TETANUS

Women of childbearing age or pregnant women

VACCINE
1st dose: at first visit or as early in pregnancy as possible.
2nd dose: at least 4 weeks after 1st dose.
3rd dose: at least 6 months after 2nd dose or at subsequent pregnancy.
4th dose: at least 1 year after 3rd dose or at subsequent pregnancy.
5th dose: at least 1 year after 4th dose or at subsequent pregnancy.

Neonates

If the mother is unvaccinated:
- Immunoglobulin 250 I.U. at birth
- Tetracoq starting at 6 weeks
(In all, 3 doses of Tetracoq at 1-month intervals plus a booster one year later)
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Television is presently central in children's lives, in both developing and industrialized countries. Children's relations with television are subject to controversy, however, the terms of which tend to be more polemic than objectively analytic.

Writers from different horizons have been solicited for this issue, so as to present a clear overview of this phenomenon.

They first review findings on viewing of television by children, its effects and influence on health. A chapter is devoted to the impact of television on children's mental, psychological and social development. This is followed by a study of the relations between television and education as they pertain to different aspects of children's cognitive development.

Following an analysis of the situation prevailing in Asia, the innovative approach used in a Brazilian experiment in education in the mass medias is described, and several suggestions are formulated by way of conclusion.

"Sowing seeds in the school garden". Picture by Doctor Edmundo ESTEVEZ. The ANDES programme in Ecuador.