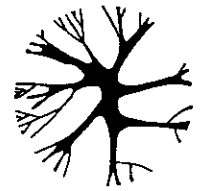


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Television and Children: Towards the Millennium

by W. Cordelian

Twice over a decade, in 1972 and 1982 the US Surgeon General has issued major reports exploring the implications of watching screen violence, on children. Between the reports, the British Commission into the Future of Television, under Lord Annan, had suggested that enough had now been done on the issue of screen violence. This advice has not been taken. New ways to explore any consequences of watching violence continue to be found. There is a new emphasis on the positive uses that children make of their viewing and of their own initiative in making sense of what they see. Gaps in previous knowledge are slowly being filled in, with a notable start on the viewing experience of toddlers and even infants. The viewing context is receiving more attention, including the ways in which parents do or do not exercise control or alter their patterns of conversation in the presence of television, since these new patterns of family life as a whole, rather than merely the screen in particular, may affect children. Television is also now sharing time with videocassettes and computers and even videocameras, and such extensions of the screen experience are being investigated. The economic side of programme provision and the ways in which advertising and sponsorship may affect children provide another area in which knowledge is being sought.

I. Three Kinds of Interest in Possible Television Effects

To be neat we can say television began in 1950 and was rapidly taken up, wherever it was introduced, by viewers of all ages. Material for adults, much of it aggressive, could be seen by children, and one major family of studies has tackled the potential (and actual) harm produced by viewing such violent fiction. Another, smaller area of enquiry has considered that aspects of the 'structure' of screen messages - their pace, absence of silence, visual tricks such as fades, dissolves, and time devices such as flashbacks - might produce effects. Some have suggested there would be

positive results, on skills of visual inference and interpretation of spatial relations between objects (the kind of abilities useful for architects, dress designers, airspace controllers and so on); others have thought there may be effects at a level of personality - making for impatience; hyperactivity and, perhaps, aggression. A third area has been that of studies of the benefit of screen content such as gains in knowledge of the world, ideas, feelings about, and motivation to help others.

Researchers' Own Identity and Their Themes

It may not be a coincidence that many research projects affirming the harm of watching screen violence were reported by men. In this review we see reports from van der Voort, Lynn, Lukesch, Conradie and others which support evidence from the 1970s that screen aggression can be harmful, even if only to a small extent, and conditional on several other circumstances being present. Although there is obviously no inescapable link between authors' gender and their conclusions, as Williams has implicated screen violence in a dispassionate study, as have Jerome and Dorothy Singer, there have in the last five years been several books by women, which proclaim a positive role for and effects of television. Brown, Dorr, and Greenfield in America, Palmer in Australia, and Davies in Britain, have all in various ways said that viewing is an active experience for children, and one from which they can, and often do, derive benefit.

Feedback of Research in the Community

Without injustice, it may be warned that these optimistic works, by themselves, can be misleading. They encourage parents to make constructive use of the screen, which is no bad thing. But disadvantaged parents tend not to read and thus

be in a position to follow such advice; and it may be that neither do legislators. Instead such messages can be taken as encouragement by those who want to dismantle systems which see to it that good programming is provided for all and to replace such systems by a market in which varied, even sometimes excellent, material will be provided, but for those who can and will afford to pay for it. Such policies will segregate the good and the harm.

Some Questions for the Future

Future studies should clearly establish how new screen commodities, be they cassettes for purchase or hire, cable or satellite channels, and the more accustomed terrestrial broadcasts are used. Observers should continue to make panel and developmental studies of the kinds already familiar, with increased attention to the very young. Screens will increasingly be used by children for music, and the distinctions between sight and sound message systems may become blurred. We need to know how, if at all, such developing patterns of experience will affect the quality of thinking and of feeling in the young. Finally, television is often used as an adjunct to other activity - it must be on while doing school homework or talking with others. How, if at all, this interacts with the quality of other behaviour should be studied.

II. Screens and Children: The Footless Tower of Research

We need to begin at the beginning. There is much evidence on what older children do with screens, and on what they see may do to them: but relatively little is known about what infants encounter at the screen. Without this, the 'knowledge' about subsequent ages is handicapped. One example to show the need for foundation before edifice is about children's likes and dislikes concerning future work; it seems that sex-role differentiation is in place as early as age four, when direct questioning first becomes remotely possible; but how has such differentiation come about? Has viewing experience had anything to do with it? We know next to nothing about this.

Geneticists, and the experience of parenthood, will have convinced most adults that children are born with individual characteristics and potential. What infants begin with interacts with the environment to model the eventual personality. Increasingly the screen is experienced from the first few weeks of life and may thus play a part in this modelling process.

Children less than one year old will be attracted to turn eyes and head toward movement and

colour, and much research points to an inbuilt ability to respond - to look at a smiling mother, to associate sight with smell and taste and satiation of hunger; later, the infant learns to smile itself and to babble. All these processes are interactive. Faces and movement are also seen on screens, but the infant must discover that these do not respond to the viewer. The task of discovering different rules of behaviour for real and screen people poses a serious challenge, and those who resolve the dilemma better are likely to have a smoother course of social development. To understand these processes we need research of a difficult kind. Little has been done, but there have been advances both in the United States and Japan.

Japanese Studies of Infant Viewers

S. I. Kodaira. *Children and Television: A Study of New TV Programs for Children Based on the Pilot of an Animated Production*. Tokyo: NHK Broadcasting Culture Research Institute, 1987.

S. I. Kodaira. *Television's Role in Early Childhood Education in Japan*. Tokyo: NHK Broadcasting Culture Research Institute, 1987.

S. I. Kodaira. and T. Akiyama. *'With Mother' and Its Viewers: Behaviour Monitoring of 2 and 3 year olds.* NHK Broadcasting Culture Research Institute, 1987.

N. Kobayashi. 'Infants in the Age of Television - Effects of Audio and Visual Broadcasting on Pre-Birth Babies to Early Childhood' *Newsletter of the Hoso-Bunka Foundation No.29*, December, 1989.

H. Suzuki. 'Studies on the Influence of Television on Children' *NHK Studies of Broadcasting No.24*, 1988.

T. Sakamoto. 'Development of ETV for 2 year Old Children by Formative Evaluation'. A paper delivered at the 21st International Congress for Applied Psychology, Jerusalem, July, 1986.

Kodaira and others have reported studies by three groups concerned with 0 to 2 year olds. One group uses a more medical perspective, one a cultural anthropological approach and one is concerned with electronic message systems. This third group report that children as young as two or three view TV more than three hours a day; even one-third of 4-5 months old babies watch an hour or more per day; and by 11 months old the proportion who almost never view is down to 37 per cent. From 4 to 5 months old infants begin to watch the screen 'intently' and from one to one-and-a-half such behaviour is found in almost all infants. These findings are not surprising since over seven in ten respondents living near Tokyo reported that there is a TV set in the room where the baby stays. One third said the baby can watch the TV from its bed.

Reporting these same findings Kobayashi adds three further dramatic items. In the first, infants of half a year or less were shown their mother's televised face, an animated screen picture, or their mother's real face. It was found that the younger the baby, the more it watched the televised rather than the real face. This may have been because the screen adds sound to the visual image. Kobayashi explains that children 'view with antennae', by which he means that they listen for signs that there is something to look at. Indeed, so standard are the ways of behaviour of normal children in attending to the screen with a mixture of hearing and sight, that abnormalities in these senses can be detected by noting abnormal patterns of attention to the TV set. Kobayashi's second important claim is that for children less than two years old, visual development is faster in those who are heavy viewers than in light viewers.

Thirdly, Kobayashi reports research in Britain (where it has not excited great attention) to the effect that unborn children in mothers who view a

lot of soap opera are then after birth better able to recognise the tunes signifying these series. Kobayashi and his group tried to detect signs of the foetus making sounds while still in the womb, in case it might 'hum when it enjoyed the music during the mother's TV viewing'. No such signs were reported and this may be because there is no air in the lungs in utero, and thus no possibility of creating sound. This does not exclude that sound can be heard inside the womb and that the foetus may respond with movement. While television may thus enter into a child's life even before birth, there is no doubt that straight away afterwards it soon makes its mark.

First Signs of An Active Use of the Screen

In half of the households with a child the set was placed so that an infant could switch it on or change channels by him or herself. From one year to seventeen months old some 70-80 per cent of infants can be observed playing with their TV sets. Soon after age two, children were beginning to actively select which channel to watch, with over one third doing this at least once in a while. In homes with videocassettes over a quarter of the two year olds were inserting cassettes on their own. In nearly 30 per cent of households with a 2 year old infant disputes over which channel to view occur once in a while. It follows from all this that infants' attention will increasingly have to be skilfully won by programme makers and indeed there are currently programmes made for toddlers, even though these will account for a minority of these small ones' viewing.

Over a quarter of eight to eleven month old infants imitated handclapping while more than half those over a year old mimicked calisthenics on TV. They also begin to imitate songs and speech. From six to seven months old infants begin to vocalise while watching the screen and after two years old about half of them are found to be doing this quite often. Not only do toddlers learn numbers and letters if they are shown on screen, they also role play by imitating cartoon and drama characters, and half the three to four year olds showed at least some imitation of violent actions and vulgar language. One out of every ten toddlers between age one and two whose family owns a VCR can replay it independently.

Adults' Interaction With Infants' Viewing

In spite of this ease of access for many, some parents take steps to control their infants' viewing. For one-year-olds just under half of the parents said they had rules on what may be viewed, and three out of ten decided when viewing would occur. Far beyond this, three quarters of parents of one

year olds controlled the distance from which the infant saw the set. This concern about the physical circumstance of viewing was more widespread at all ages than were controls over content and amount viewed.

Three quarters of kindergarten teachers said that children's language deteriorated as a result of watching TV, and almost as many mentioned aggressive behaviour including kick-boxing, jumping down from high places and imitating gun fights. Parents of these older toddlers agreed about such negative influences, though those of younger toddlers felt TV had a positive influence. Kodaira reports that parents are strict about truthful and polite behaviour, but not so much

about limiting television viewing. A reason for allowing much viewing was to 'put the child in the picture' with regard to what he or she would encounter in others' experience, on entering school.

To help meet children's needs there is a Forum for Children's Television, and the NHK and Fuji networks broadcast specially made educational programming. Since 1978 the NHK has supported a Research Project on TV Programming for Two-Year-Olds, headed by Emeritus Professor Dr. Tsune Shirai. Children are videoed while viewing (with their mothers) in a special studio, and their attention and interest in programme segments are recorded. Sakamoto has documented these results.

III. American Studies of Pre-School Viewers

D. R. Anderson, E.P. Lorch, D. E. Field, P. A. Collings, and G. Nathan. 'Television Viewing At Home: Age Trends in Visual Attention and Time with TV' *Child Development*, 57, 1986.

M. Rice and L. Woodsmall. 'Lessons from Television: Children's Word Learning from Viewing' *Child Development*, 59, 1988.

M. F. Pinon, A. C. Huston and J. C. Wright. 'Family Ecology and Child Characteristics That Predict Young Children's Educational Television Viewing' *Child Development*, 60.

J. L. Singer, D. G. Singer, R. Desmond, B. Hirsch and A. Nicol. 'Family Mediation and Children's Cognition of Television: A Longitudinal Study' *Journal of Applied Developmental Psychology*, 9, 1988.

Anderson and his colleagues at the University of Massachusetts have used time lapse photography to observe children's use of television. In a home situation children spend less than ten per cent of the time looking at the TV when it is on, but this increases to two-thirds of the time at age three to four, and 70 per cent for five to six year olds. One of the benefits of this viewing can be to learn vocabulary; but two aspects of the environment are important in facilitating such learning, and these are parents' behaviour and the type of programming available.

Rice and her associates have observed 325 children, half aged two-and-a-half, and half aged four-and-a-half, initially give a vocabulary test and then followed up for two years. During this time home viewing diaries were collected for five one week periods. Viewing of *Sesame Street* peaked between ages three and a half and four, and was greater where there was parental encouragement. Initial vocabulary scores were not predictors of amount of viewing later, but certain kinds of viewing experience did indicate improved vocabulary later on. The positive viewing experience included *Sesame Street* and other educational programmes, while cartoon viewing did not link with better vocabulary. Not only was this shown in the long-term field study but it was supported

in the laboratory. 61 children aged three and five were shown a 15 minute programme which, for the experimental group contained 20 novel words (amongst the familiar text). The new nouns, verbs and certain kinds of adjectives were better understood by the experimental group.

A group under the Singers at Yale have long and intensively studied medium-sized groups of children and recently reported on 66 kindergarten and first graders studied over two years. There were three measures of parental behaviour: general mediation, which finds where they stand on a prescriptive to a discussional style of communication; power assertive to love-withdrawal style of discipline; and 'TV Mediation' which combines talk and restrictions about what to and what not to see. Children's aggressive behaviour and fear of a hostile world were tested, along with several other measures of their abilities. Television viewing was measured as to its overall extent.

Discussion and explanation at the early stage was positively related with several measures of children's television comprehension and the ability to distinguish screen fantasy from reality. Discussion and explanation were linked with less viewing and less fear of a hostile world and less aggression two years later. Simple amounts of television viewing were not independently related with

reading recognition ability, with fear of a mean world or with levels of aggressiveness. However, the amount of viewing can be combined with styles of parental behaviour to show relationships with later children's behaviour. Thus general knowledge of the world is lower where there is a combi-

nation of less TV mediation and heavier viewing. Those with less TV mediation, regardless of how much they view, also fear the world more. The authors consider that it would be useful in other research to measure the kinds of television fare that children view, rather than the gross amount.

IV. Television and Older Children: Some Opinions Amongst Educators

T. S. Robertson, S. Ward, H. Gatignon and D. M. Klees. 'Advertising and Children. A Cross Cultural Study' in *Communication Research*, 16, 1989.

T. H. A. van der Voort and J. E. Van Lil. 'Does Television Reduce Children's Leisure Time Reading? A Cross Sectional Study'. Paper presented at the International Communication Association, San Francisco, May, 1989.

Wober, J. M. *British Children, Their Television Viewing and Confidence in the Face of Crime*. London: Independent Broadcasting Authority, 1987.

Wober, J. M. *How Much Television Children View: Measurement Problems and Some Results*. London: Independent Broadcasting Authority, 1988(a)

Wober, J. M. *The Use and Abuse of Television: A Social Psychological Analysis of The Changing Screen*. Norwood, NJ: Lawrence Erlbaum, 1988(b)

Wober, J. M. *TV, And What To Be. Children's Viewing And Occupational Aspirations*. London: Independent Broadcasting Authority, 1988(c).

Wober, J. M. *Children's Tastes in TV Cartoons: A Brief Note*. London: Independent Broadcasting Authority, 1989.

Wober, J. M., S. Fazal and G. Reardon. *Parental Control of Children's Viewing. Patterns of Discipline and of Viewing Experience*. London: Independent Broadcasting Authority, 1986.

Wober, J. M., G. Reardon and S. Fazal. *Personality, Character Aspirations And Patterns of Viewing Among Children*. London: Independent Broadcasting Authority, 1987.

Wober, J. M. and S. Fazal. *Children's Imagery and Uses of Television, Computers and Other Communication Equipment*. London: Independent Broadcasting Authority, 1988.

It is quite common for newspapers to take polls in which they ask the public at large, or parents, or teachers, their opinions about children and television. Quite often the results are derogatory of television. An example of an expert opinion is that of Peter Dawson, an official of the British Professional Association of Teachers. He wrote in the *Daily Express* of 26th January, 1990, 'There is an abundant evidence of the destructive influence of television on young people. It makes them illiterate, disruptive and morally bankrupt'. The utterances of children beginning school are 'mainly confined to a single statement of one word...because they have been stuck in stupefied silence in front of the gogglebox..'. Beyond the matters of skills, 'the worst influence of television ...is the picture it projects of what is right and what is wrong. Its moral position is more often down in the gutter....in soap operas...the message is to take what you can get and never mind the consequences in terms of human misery'.

It is certainly an exaggeration, as research mentioned below testifies, to say that television makes children illiterate. Van der Voort and Lil (1989) have shown that heavy viewing is linked with less book reading, though with more time spent reading comics. Williams (see below) has gone into the matter in more depth, and it is more true to say that the family can, if they wish, use television positively to enhance reading experience. Much research on soap operas shows that people feel them to have a quality of good much more than an aura of evil. Dawson's idea of children as 'couch potatoes' is opposite to an equally often expressed worry, that heavy viewers are hyperactive. Television is unlikely to make children both, but it is more likely that overpassive or overactive children may well have been the same without the viewing they do.

Another worry was expressed by Raffaella Barker in the *Daily Telegraph* of January 24, 1990, when she reported that toymakers now make

programmes some of which cannot be fully 'enjoyed' without the aid of an expensive toy. So the programme becomes nothing more than an advertisement, *Captain Power* is the name of such a series, which has been considered unsuitable for British television to import from America. *Masters of the Universe* has been accepted and is well liked. One study by Robertson and others (1989) has looked at Japanese, British and American children, aged from three to ten, relating their viewing to aspects of personality. They conclude that 'the more demanding the child, the greater the television viewing, the more the requests to parents, and the greater the parent-child conflict.' We should notice that the second link-up would apply, even if the first one did not (though, in fact, it does). Family rules were more stringent in Japan, and Japanese children were significantly less demanding, but also less communicating (at least, by the measure used) and less independent than were British and American children.

These studies show that the concerns of teachers and others who work with children are not entirely unfounded, but that much still remains in the hands of parents, of educators who can recommend how parents handle television, and of the television authorities and industry which should be capable of responsible behaviour, lest they invite appointed institutions of control.

British Work With Panels of Child Viewers

The studies to be reported pick up two major points arising from the Singers' work in America. One is that it is important to measure not just overall viewing of television, but how much children watch of different types of programmes. This enables one to judge whether any links found between viewing and aspects of personality or behaviour stem from the content of what is seen or from features of the message system itself, such as the balance between sight and sound, the speed of cutting between scenes, the fact that people on screen do not react to the viewer, and so on. As to content, if it can be shown that certain themes predominate, then we may accept that these can influence viewers. Thus Morgan (1983), and Singer and colleagues (1984) reported that watching more television, which contains more violence and helpless people being victimised, makes children more fearful. Others have reported that watching violence makes viewers more aggressive. So it remains necessary to tease out whether it is the kinds of things children see, or the ways in which what they see are put together, which may affect them.

Another reason why it is important to measure viewing to different kinds of television content is

that if there is a healthy diversity of available material, then it makes some sense for parents to try to model and interpret their children's viewing, and the American and Japanese research has suggested that such parental behaviour can indeed be useful. Further, if certain kinds of programming are found to be comparatively beneficial then concerned groups can press for such material to be universally available when children watch, rather than leaving it to the market to provide suitable productions.

The Independent Broadcasting Authority, responsible at the time of writing for the standards of programming on two commercial channels in the United Kingdom, maintained a panel of over 1000 child viewers, aged under five, to twelve years old, and these received appreciation diaries each spanning a week, once a month. Members had been recruited by interview and parents understood that they were to help fill in diaries, strictly according to what their children viewed without alteration, giving their children's opinions of the programmes they saw. Each wave had well over 500 respondents and over 400 who would fill in the extra questionnaires. These response samples had their answers weighted by expected numbers taking into account of the known proportions of children within the sexes, age groups and social strata. Where two waves' results were analyzed together, there were over 300 respondents in the common core sample. The main purpose of the system was to calculate 'appreciation index' scores for each programme, from its viewers, and to do this they had a scale with each position illustrated with a face, from a smile ('like the item') to a frown ('dislike it').

It was realised, however, that the week's diary also indexed the numbers of items seen, per person; and these items were classified by programme type. Towards the time the panel came to be disbanded (to be replaced by one run by a new Broadcasters' Audience Board consortium, including the BBC), the final waves of measurement were given an extended scope. With each diary wave an additional questionnaire was included, one assessing ways of parental control, the next exploring liking for television characters and ideas of how one wanted to be, oneself, in the future, and other topics. The analyses enabled these measures to be knitted together, indicating if patterns of viewing experience were linked with parental and child behaviour, and if so, in what ways. The work was limited in being postal and without the quality control possible with small longitudinal panels such as the Singers', and it was also limited in that it was not analyzed as a long term panel design. Nevertheless, it has

merits of size and of detail in measurement of viewing patterns.

Parental Control of Children's Viewing

The first report within this series (Wober, Fazal and Reardon, 1987) dealt with what were referred to as 'socialisation practices'. These included replies on whether children and parents talked about forthcoming viewing and what to and what not to see, how strict each parent was, (measured on a five point scale), whether the parents ever stopped the child viewing during a programme and whether viewing was ever used as a reward, or withheld as a punishment. Bedtime emerged as the best predictor of amount of viewing - no matter the age of the child. Earlier bedtimes, again with age partialled out, linked with more viewing of programmes made for children. Stricter parents had children who viewed less material made for adults - though it made no difference to their amount of viewing of children's material. In families where viewing is used as a reward, and where its prevention is a punishment, there is a higher degree of appreciation for children's material viewed, though no particular link with enjoyment of adults' items.

The Child's Personality, and His or Her Viewing

Child personality was measured by a self endorsed checklist of sixteen items which yielded five attributes including aggressiveness, defeatism, sociability, effervescence and ambition. Well known TV characters listed as options to emulate proved to group into four clusters, one female (whether from fact or fiction programmes) and three male (identifiable as deviant, fantasy or actuality models).

There was no simple link between watching more adventure action programmes and personal aggressiveness, but controlling for age such a link, absent in earlier years, emerged for ten to twelve year olds. Among boys, those who watched more film and non-serial drama made for adults tended to be more aggressive. This did not occur for girls. There was no evidence that viewing more cartoons, many of which are aggression-containing, linked with aggressiveness or other elements of personality. Watching more of informational material made for children related independently with lower aggressiveness.

A desire to be like female TV role models was connected with heavier viewing of soap opera - though not of adventure action, viewing of which in turn linked with a reported desire to be like male-fantasy characters. There were also links between measures of personality and aspirations. It was interpreted that aspirations may be influ-

enced by viewing experience, more so than are personality attributes which are more likely to be inborn. Personality, in interaction with parental control behaviour is likely to determine the viewing experience and this then brings to bear upon aspirations.

On the next occasion children replied about their expectations that each of a series of events (some good, some bad) might occur; for example that they might one day see a huge spider in the bathtub, or them may win a free holiday prize with some routine purchase. They also said whether they expected to be brave or afraid in eleven various cases, including if someone stole their favourite toys or things, or if they had to go into a dark room at night. Factor analysis revealed coherent patterns of expectations of events and of responses, including two 'kinds' of courage, involving physical and social elements. The analysis then went on to examine any links between these replies and patterns of viewing. Heavier viewers of adult adventure action were more likely to express physical courage in the prospect of positive events, such as medical injections and fun fair rides.

A greater expectation of loss or injurious events was found among those who expressed greater social courage, and who viewed less adult soap opera; there were no other links between this perception and viewing measures. The idea that one would be brave in the face of possible injury or loss was found more amongst those who viewed more adult film and drama but smaller amounts of adult general interest material. These findings do nothing to establish any causal links - on the contrary, they support the Singers' (1984) later null finding of no link between general viewing and feelings about a 'mean and scary' world, and similarly fail to support the earlier American reports of such a link. One reason why the British material shows no such evidence may be that the programming is more diverse and much of it more suitable for children in containing less violence than is found on American screens. It is not going to be claimed that a more mellow view of fewer injurious events is caused by watching more soap operas. The link may exist as a result of some common personality feature, or just by accident. The wise course would be to wait until more studies either reinforce such a finding or to support it.

Viewing and the Child's Future

Another questionnaire explored occupational aspirations. A Swedish study by Hedinsson (1981) had said that the time spent watching TV affects both ideal and real job choices, in the latter case

reinforcing lower social class patterns. Fifteen year olds who preferred informative programmes were more inclined to expect higher class occupations while those preferring TV fiction opted for less demanding jobs. These Swedish findings needed to be confirmed, and with younger children and more detailed measures of viewing experience.

The new British study (Wober, 1988c) listed fourteen work activities and found how often each was noticed being done by male and by female figures on the screen; then, children said how much they would like to do each one (or not) when they grew up. These occupational aspirations were correlated with the counts of viewing of programmes in each of seven types made for adults, and three types made for children. Indications of TV effects would require two matching correlations, as the following example illustrates. For girls, those who saw more adventure action said they more often saw women doing computer work; likewise, those who saw more adventure action were more interested in doing computer work. In this combination of a pair of correlations we can talk of a possible reinforcement by what one sees, or thinks one sees on the screen (which is what matters), on some aspect of one's character, in this case, future work aspirations.

In fact, there were very few such occurrences of joint pairs of correlations. In a later study, well after the appearance of *Neighbours*, an extremely widely seen soap opera in which a central character is a young girl who works as a motor mechanic, children indicated how often they saw, and wanted to be a motor mechanic. It was not a popular choice, but girls and boys were about equal in their aspirations in this direction, not an outcome for most other activities, which are markedly sex-linked. For example, boys are much more likely to want to do 'complicated work on a computer' and girls to 'attend to patients in a hospital' (the item did not state whether in the status of a nurse or a doctor). One of the noteworthy features of this survey was that the overall pattern of aspirations is well in place amongst children aged four to six, just as among those aged ten to twelve.

Viewing TV and The Machinery of Mental Life

A final report in this group of studies deals with evidence of imagery claims, and the links between these and the use of various forms of communications hardware. Two kinds of imagery practice were indicated, by factor analysis of seven items, such as making up stories in one's mind about others, self included or not, and re-running stories in one's mind that have been encountered on TV or in a book. These were linked with more viewing of

children's television (though there was no relationship with viewing of adults' material), with a greater use of print, and with less use of videocassette material. Imagery incidence or claimed fluency did not relate with amount of reported computer use; nor did it do so with the degree of aggressive personality feature called effervescence (those who laugh a lot, ask questions and are cheerful).

The measures of viewing underlying these studies are themselves of much interest. Children view on average over five programmes a day. They watch over twenty items made for adults, in a week, and over sixteen made for children. On average, children watch between four and five adventure action and film and drama items a week, but their greatest weight of viewing is of comedy and light entertainment made for adults (nine items) and that made for children (mostly cartoons—ten items). A relationship exists between aggression scores and a 'safety ratio' in viewing patterns. This ratio was calculated by adding all that is seen in soap opera, sport, comedy, news and information, and dividing by the amounts seen of adventure action and film and drama—a low score denoting less 'safe' viewing. The safest viewing occurred amongst youngest children. The evidence points to the importance of dilution of potentially aggression-supporting content that can be, and is seen, with material that is ostensibly innocent. Any argument that 'television viewing causes aggression' would then have to depend on aspects of its structure, such as short scenes, non-interactive nature, and whatever else it may be argued causes impatience or impulsivity. These processes may, indeed, exist and even at a very young age; but researchers have not yet widely tackled these possibilities.

British Research: Northern Ireland

A novel research approach has been pioneered by Professor Richard Lynn of the University of Ulster at Coleraine. He surveyed approximately two thousand secondary school children and established which were siblings. The measures were of viewing aggression containing programmes, of personal levels of aggression, of a personality (including extraversion, neuroticism and psychopathicity) and of enjoyment of the aggression-containing material (this measure was taken from the work of Van der Voort, discussed below).

Approximately one hundred boy sibling pairs were available and a similar number of girls, and correlations were calculated between measures either within, or across, families. It emerged that there were no significant links between amounts of viewing of violence and personal aggressiveness,

but there were significant links between enjoyment of the violence viewed, and personal aggressiveness. The interpretation offered is that children are born different, even within the family, and that amounts of viewing of violence (which correlate significantly within families) do not necessarily indicate which child will enjoy the violent material more. Those who do enjoy watching aggressive material more, who are significantly more likely to have higher scores in psychopathy (though not on extraversion or neuroticism), may be reinforced in their likelihood to behave aggressively.

This study, which also measured intelligence, but did not implicate it in the network of features which associate with or produce aggressiveness, did a service in clarifying inherent or inborn features of personality that strongly point to likely behaviour, and in showing how this aspect of the 'internal environment' has to be taken into account with what may be seen on TV as jointly having some responsibility for eventual behaviour. All the same, links between television viewing (not overall, but to particular items likely to contain violence) and own personal violence levels were extremely slight. Again, part of the interpretation for this outcome is likely to be due to the infrequent and diluted amount of violence that there is available, and viewed.

A German Study of Screen Violence and Personal Aggression

Lukesch (1989) has carried out a study, within a very large project involving over 4,000 teenagers, surveyed in 1985 in Bavaria. Within this huge sample, which provided extensive data on ownership, access to and use of most imaginable systems, 807 randomly selected participants had to answer two questionnaires to measure spontaneous and reactive aggressiveness. Spontaneous aggressiveness is a comprehensive measure of how often each of a list of 42 violent acts such as fighting or breaking a window had been done in the past six months; reactive aggression is a scale of the conditions under which people think they would behave violently (as with hitting someone with a bottle, shooting someone) with a highest value given to each case if one would do it for fun, and the lowest given if one would do it if one's life was threatened.

Measures were recorded of the amount of viewing of violence in the cinema, on videocassette, and on broadcast television. Analysis consists of correlating these measures with a few others. The result is that watching cinema and video violence is linked with aggressive behaviour, and so is watching televised violence. The first two experi-

ences are much more markedly linked with behaviour than is viewing televised violence. Sophisticated statistical methods were employed to check whether aggressive behaviour is more likely to bring about watching violence rather than the other direction of causality, and Lukesch claims success for these steps.

Lukesch's study is not a long term one and personality and environmental measures were not extremely involved (excepting type of school). Others would be reluctant to accept that the outcome shows, as Lukesch claims, a causal process. However, the study is very large, the measures very complex, and it is in harmony with the majority of other studies using similar and different methods, but generally pointing in the same direction.

A Note on Cable From Austria

Boeckmann and Hipfl (1989) tell us about a survey among one hundred families in Klagenfurt, a small Austrian city in which cable TV had been installed. About one third of the group had no cable, another group had just taken it, and the remainder had had it for some time. Children were included from under age six up to sixteen years old. The cable service at first offered channels from the public service broadcasters in Federal Germany, but towards the end of the study they began to offer *SKY* channels without explicit public service obligations. Some *SKY* channels offer recycled fare, but there are also some new films, and much music of appeal to modern youth.

The gist of the Austrian findings was that amounts of viewing, already low by international standards at about an hour a day per child, did not change greatly on arrival of cable. At first, the pattern of consumption as regards programme types did not change either, but amongst those who had had cable for a longer time there was a tendency to view a greater proportion of entertainment material. Amounts of viewing were connected with other attributes such as parental styles of control, child personality and educational experience, but not so much simply as an aspect of the presence of cable. It appears that family culture in this city was still strong and that this is what mostly affected the style of life, which included the kinds of use made of informational and entertaining screen fare.

Perceptions of Violence And Aggressive Behaviour: A Netherlands Study

T. H. A. van der Voort. *Television Violence: A Child's Eye View*. Amsterdam: North Holland, 1986.

As a social psychologist, Van der Voort considers it important to deal with how children perceive television. He chose to do his fieldwork in schools so that he could return to his subjects several times and in this way 314 children aged from nine to twelve years old were thoroughly interviewed. Basically they answered questions, saw programmes (there were four violent items with humans, *Charlie's Angels*, *Starsky and Hutch*, *Dick Turpin* and *The Incredible Hulk*, one with fantasy characters, *Scooby Doo*, and one group of children saw three short cartoons, one *Popeye*, one *Pink Panther* and one *Tom and Jerry*) and finally answered more questions.

The initial measures established how often children watched each of forty recent drama series (each of which was graded by children for its extent of violent contents), measured their preference for violent programmes and their enjoyment and fear of screen violence, and the extent of absorption in, and perceived reality of programmes.

After seeing the programmes (twelve sets of children each saw the items in a different order) children answered their second round of questions. These included appreciation of the programmes, absorption in each one, detachment while watching, emotional responsiveness, identification with leading figures, perceived reality, readiness to see violence, approval of violent actions, enjoyment of violence and understanding of the contents of each programme. Finally, aggression in behaviour was measured one year later, after all the initial testing; 217 children remained in the core sample. Aggression was measured by the children themselves and by teachers with respect to physical and verbal behaviour.

The results of all these questions are presented and discussed very fully. In particular there is considerable justification of the approach of relying on children's own perceptions of what constitutes violence, in assessing what the significance of such experience might be. For example, children may not feel that violence in retribution is as serious as that committed by the original transgressor. They also consider cartoons to be nearly devoid of violence, a view that is at odds with that of at least some researchers who have associated the fact that cartoon violence is not perceived as such, as a contributor to eventual harm.

Heavy viewers of television were less likely to identify acts as violent that light viewers would describe as such; heavy viewers enjoyed the violence they saw, more and were quicker to approve of violent screen acts. These facts van der Voort points out are 'hardly conducive to optimism' especially when he adds that parents of such children are less concerned about the adverse effects of screen violence.

All the initial measures were analysed together and grouped into five factors which were called uncritical enjoyment of violent programmes, school achievement level, involvement with programmes, indifference and unconcernedness. This last 'group' of two measures combines (lack of) parental concern, and child's preference for violent programmes; each of the other factors also consists of two or more measures.

The first outcome was to report that amount of aggressive programming seen in the first year of testing was significantly correlated with four measures of aggression a year later, but not with a measure of affiliation at this stage. In addition, five predictions about the perceptual characteristics measured earlier, were borne out with regard to later aggression. Uncritical enjoyment at the early stage related with aggression later on. Involvement with what one saw was not related with aggression, but school achievement was negatively linked. Finally, indifference and lack of concern were also correlated with this last result. The notion that 'watching programmes with detachment would reduce the likelihood of TV violence heightening aggression' has to be 'abandoned for good'.

This study is an extremely careful one. It may omit some of the steps which a perfectionist would consider necessary to 'demonstrate' a causal effect of watching violence, on aggression (for example, a measure of the level of aggressiveness at the outset of the study); however, perfectionists do not admit the force of studies which do include such steps in any case. Where this one has merit is in the obvious depth of understanding of the frames of mind among the child subjects, and the clinical skill brought to interpreting the way the results assemble statistically into patterns.

The Arrival of Television: A Canadian Case

T. Williams (Ed.). *The Impact of Television: A Natural Experiment in Three Communities*. New York: Academic Press, 1986.

Professor Tannis Williams at the University of British Columbia heard in 1973 that a small and not untypical Canadian town was without television but that in 1974 it was to be served by a

transmitter that would bring it one channel. A study was quickly organised so that a number of tests and observations could be done in this town, dubbed Notel for anonymity, and in two similar towns, once called Unitel, because it received one channel from the Canadian Broadcasting Corporation, and another referred to as Multitel, because it had the CBC channel but also three from across the border in the United States. A book on this research by Williams and her colleagues is one of the most widely recognised milestones on the road to knowledge about how television is woven into childrens' lives. Raymond Corteen helped in a study of reading skills, Linda Faye Harrison explored other cognitive skills, Gordon Handford examined leisure activities. Michael Boyes concentrated on uses of other media, Meredith Kimball looked at sex-role attitudes and Lesley Joy and Merle Zabrack, with Kimball attended to aggressive behaviour. Tannis Williams introduced, guided and discussed and concluded the whole enterprise.

The design of the project was to study children in each town at successive periods as they got older, before television entered Notel and up to two years afterwards. Other children were tested at each grade level, for sake of comparison. A few people in Notel did receive poor TV signals, while most others had 'guest viewed' in homes in other towns, with an average of under four hours' viewing per person per week at Notel before it received its service compared with 25 and 31 hours each in Unitel and Multitel. On the other hand a few people in Unitel did not watch television on the average day. In several demographic respects—of percentage of blue collar workers, parents with high school education—type of economy, road services to other communities and so on—the three towns were substantially similar.

Williams concludes that 'television affects viewers negatively in a variety of areas via displacement'. Related to this is the observation that it was the simple arrival of the screen, rather than the different amounts and kinds of fare as between Unitel and Multitel which had more to do with the kinds of effects that were detected. Thirdly, it appeared that 'television may serve as a teacher... children's aggressive behaviour increased and their beliefs about appropriate behaviour for girls and boys became more strongly sex typed'. In several aspects of functioning television does not operate in only one, but in several ways.

For example, with regard to reading skills, television begins by displacing reading practice which is particularly important for less able children. Those who read poorly tend to prefer to watch the screen. Beyond a certain level of ability

children cope effectively with reading in any case and this is one reason why there is not a major and deepening link between heavier viewing and poorer reading. Alongside William's evidence it is useful to bear in mind Reeves and Roberts' (1988) report from a large and longitudinal study in California, that there is little or no traceable connection between viewing habits and reading skills. It is also useful to bring into the picture the findings linked with the *Sesame Street* and *Electric Company* programmes (see Section IV) which suggest that certain well designed and regularly viewed material can help to motivate and teach elementary reading skills.

In all, therefore, the evidence illustrates the difference between what can happen and what does happen. The 'can happen' pointers to benefits depend on special programmes having a sufficiently prominent place in viewers' experience. A natural experiment may reveal that these special conditions do not exist, and is useful in showing what happens in the real world. The Canadian research expected to find better vocabulary among heavy viewers, but did not demonstrate this.

Children were also tested on creativity (as measured by the Alternate Uses task: 'how many uses can you suggest, for a magazine, a knife, a shoe, a key and a button?'), spatial ability and general intelligence. Before their town had television, Notel children had higher creativity scores than did youngsters in the other two towns; two years later, after TV, scores were equivalent in the three towns. This appears to be an effect of living with television, though the explanation is still a matter of conjecture. The authors suggest that TV may encourage viewers to rely on ready-made ideas to which one may add that this can be so because TV never stops. If it did so, viewers could reflect on what they had seen and turn it around in their minds. Instead, TV pours out more, for fear that viewers will switch to another channel. Viewing replaces time that could otherwise be spent with activities which would give more exercise to the imagination.

Visual-spatial ability was measured by one task of dealing with geometric puzzles, and another of suggesting meanings for very sketchy line drawings. There was little evidence to link television with these skills. This, therefore, failed to support the optimistic idea that experience of the screen and of the spatial relationships so copiously shown on it would increase these skills. One of the tests for intelligence also involved arranging coloured blocks so as to make complex patterns, and this did not provide results consistent with the longitudinal experiment. In one town there was a nega-

tive relationship between amount of viewing and (lower) scores on this test. The authors think this is not an effect of viewing, but a sign that less intelligent children tend to watch more.

Did the pattern of childrens' activities change, with the arrival of television? It did, with less participation in sports, dances and other clubs and meetings. Not only was there less participation in community events among children, but this was also true among old people, suggesting that television may lead to greater age segregation. Williams did not go into the matter but marketing is another source of a split between ages, with advertisements carrying programmes into separate styles for people of different ages, or at least doing this in countries with market dominated television systems.

The team found that pupils' perceptions of what is the right behaviour for girls and what is proper for boys was influenced by the arrival of television. This led to the suggestion that television could play a more positive role in showing to both sexes that each could do a much wider range of activities. This notion has been developed by Durkin (1986) in Britain. He found that girls could be interested in what were hitherto thought of as boys' jobs if they saw examples of girls doing such things on the screen, and the vice versa for boys. What is needed, for those who want to see greater sex role equality (not everyone does, and this poses a problem for those who want to preserve traditional culture among Asian immigrants to western countries, for example), are more examples of 'cross role' actions on the screen. To some extent, television producers can claim this is so, for example, there is a young girl motor mechanic in one of the most popular (Australian) soap operas; but such egalitarianism on the screen is not yet fully widespread.

To examine aggression the Canadian researchers avoided judgements by teachers and children about themselves, but actually observed children at play. Not only physical but also verbal aggression was measured, and on both counts effects were attributable to the coming of television in Notel. Increases in aggressive behaviour were there for boys and for girls, for those who were aggressive at the outset as well as for those who were less so, and it occurred at more than one age level, among the children examined logitudinally as well as among those who were only tested once at each age. As for explanations, one idea is that the lowered social cohesion in the community (remember the drop in attendance of community activities) may reduce the restraints on aggression. Other possibilities are that television content offers examples that are followed; or that regardless of

the story themes, the pace and activity of screen fare overstimulate some children who then behave roughly.

Some reviewers still disagree that television (at least in North America) stimulates aggression; but these tend not to mention the Williams studies (let alone the later South African ones). At least three constructive suggestions spring from these findings; one is that some form of restraint on contents - having less violence on display is likely to be no harm, at the very least, and quite possibly a contribution to more peaceful children. A second idea would be to reduce the amount of television available - the 'clamour' of the screen, in its number of channels and the pace of what goes on each one. At the moment this suggestion is not fashionable, with industrial and free speech arguments aligned in favour of a more hectic screen market. The third notion is to help parents to be able to explain the art of viewing, to their children, the so-called television literacy idea (which could well start by realising that literacy pertains to letters rather than to moving pictures). This critical skill can also be taught to children, and this may be necessary in view of the number of parents who are known, from surveys, to be disinclined to do anything to restrain or to help interpret their children's viewing.

At all events it is the job of researchers to reveal psychological and social processes, and progress has certainly been made in this regard. It is a wider responsibility for the public at large then to decide what to do about what has been revealed, including asking new questions of the researchers

South Africa

South Africa is the last economically developed country to have introduced broadcast television, and the opportunity was there to study the effects of this innovation. The Human Sciences Research Council followed up well over 2,000 pupils from their time in Standard 6, two years before the arrival of television, until Standard 10, three years after its introduction. At each year there was a large, parallel non-panel sample. A wide range of measures and personality, ability, perception and attitude were applied for the children, and data were also collected on parents. Various sub-sections of the overall research programme have been discussed by Jordaan, Visser and Botha (1989), while Conradia, Heyneke and Botha (1987) examined the issue of violence.

The desensitization theory, that increased familiarity with screen violence would make viewers less likely to identify acts as violent, was not supported, nor was catharsis theory, in which some benefit, by relief of frustrations might be

experienced by viewing violence. There was support in the evidence for the social learning (people copy what they see) and the disinhibition theories (people feel less likely to restrain themselves from aggressive behaviour, having viewed examples). The authors state that 'television viewing was accompanied by small increases in different types of aggression' though these 'did not make a big difference to the mean levels of aggression.....on various scales. The effect of television was therefore relatively small..' Such effects were found somewhat more among boys, those with lower self esteem and children who were initially more aggressive.

More generally, Jordaan and his colleagues indicate that television reduces the time hitherto spent in listening to radio, but suggests that it has a positive effect on the amount of reading, though this may be of a limited quality involving comics, as less time was spent doing homework than before the appearance of television. There was also less participation in certain sports, among certain ages of children.

As children grow older they talk more with their friends than with their family members, and as Elizabeth Nel (1989) showed, television affects the latter as well. Nel reports observations of thirty children in their families, each for a two hour period, in which on every minute behaviour was noted down in each of twenty categories - a kind of time-lapse photography in which trained observers played the part of the camera. Compared to when the set was off, the degree of communication was less than when it was on. In the categories of conversation depth and social approach there was more intimacy and spontaneous attempts to start talk when the set was off. In view of these results Jordaan's suggestion that children view behaviour norms seen on television as what is accepted, may well explain the result he reports, from the large scale studies, that in most social class groups children who viewed television, more so than those who did not, thought that their own behaviour agreed with the accepted norms of society. In terms of personality it was found that viewers were more hearty in their relations with others and to have a greater liking for group activities than was found with non-viewers.

Unlike in the British study reported above, Jordaan reports that television viewing affected pupils' interests in law enforcement jobs. Girls were reinforced in their interest in activities traditionally linked with women, including domestic management, dressmaking and knitting, but viewers had less interest in welfare occupations such as social work and nursing. There was no influence found on second-language (Afrikaans or

English) skills among the two major white communities, which is likely to be associated with the fact that there are programmes in each language for these speech communities.

The above studies were all among white children. Yet the most striking interest in television in South Africa should be in what it may do for white perceptions and knowledge of black people (for white viewing is more widespread) and what black viewers (who do have some services in their languages, but not with the same standing as the whites' broadcasts) may come to feel about the largely white society they see, up till now, on the screen. A study by van Vuuren, Bornman and Mels (1990) is therefore an important one in this context, for it involves over 200 black school pupils and looks at their perceptions of three episodes of *The Cosby Show*, featuring the black Huxtable family which has been, with *Benson*, a comedy in which a black hero dominates events in the Governor's mansion of an American state, one of the best liked programmes on South African television.

For items asking whether one's parents might like to be like the Huxtable parents in the programme, likewise for other people and for oneself were grouped together in a scale the authors called identification. Being black was a significant characteristic indicating wanting to be like the black TV family, while white pupils, of whichever language group, did not want to be like the Huxtables. Complex analysis shows that the main reason for wanting to be like the Huxtables was probably that those viewers thought that the children in the show were good at telling their parents about their feelings. This recognition of family interaction was also a reason why children liked the programme. However, although all groups liked the programme, it was not the colour of the child that determined liking. It was linked with wanting to be like the characters there, but not with liking the programme. In short, this is a programme with and about black people which white children in South Africa enjoy; as such, it may be one positive element in the developing culture of that problematic country.

V. Screen Prospects For Children: Fair and Unfair: A Policy Review

E. L. Palmer. *Television and America's Children: A Crisis of Neglect*. New York: Oxford University Press, 1988.

A. C. Huston, B. A. Watkins and D. Kunkel. 'Public Policy and Children's Television'. *American Psychologist*, 44, 1989.

D. Kunkel. 'From a Raised Eyebrow to a Turned Back: The FCC and Children's Product-Related Programming'. *Journal of Communication*, 38, 1988.

N. Postman. *The Disappearance of Childhood*. New York: Delacorte Press, 1982.

Kunkel warns that new ways of financing screen products, combined with what he terms a 'deregulatory' climate at the Federal Communications Commission, mean that the toy industry has started to promote 'program-length commercials'. These create 'heroes' in the images of whom plastic toys are sold, as are soaps, T-shirts and a range of spin-off products. He explains, as do Huston and her colleagues that young children are vulnerable to such appeals as they are not yet fully ready to distinguish the fact that they are being exploited. Huston, Watkins and Kunkel note that the FCC has assumed that market forces would generate diverse programming and limit commercialization. They point out, however, that these supposed benefits have not come about. It is worth commenting that the term 'deregulation' masquerades as a positive banner, implying an increase of freedom (and facilities). It should be understood though that what it means is that one system of regulation (by a Federal - or in other countries, some para-governmental body) answering to democratically determined goals (as in an act of the legislature), is to be replaced by another system of regulation. In the new case, market forces and pressures will determine what happens, but the rules of the economic system are just as effective as are the social ones of a Public Service structure. In short, a system of regulation beneficial in the first place to viewers is replaced by just as vigorous a system of regulation in which the rules are less visible, but which function in the primary service of corporations. They serve their paying customers, but not the whole public. A proper term by which to call this process is *re-regulation*: understood truly as such, it would pass muster a good deal less easily than it now does.

Palmer, and the others, point out that a most important sector of the public which is systematically unserved by a market system is the child population. In this, the criticism partly resembles that of Postman who goes further and argues that television is destroying or has already destroyed the social category of childhood. Postman, in his

strong and amusingly written book, is not impressed by some ways in which television probably supports the category of childhood—at least in providing programmes which help sell toys; and these are not adult toys. Postman also does not argue the case that television cannot counter the facts of the sequence of child cognitive development—largely as explained by Piaget—in which various stages of sophistication are slowly worked through. Much research suggests, indeed, that while television properly used can instil knowledge, it cannot lift children over the hurdles of the main stages of mental development to enable them to function mentally as adults, in their pre-teen years. Others, such as the group with Williams in Canada, have provided evidence that if viewing is not usefully applied it can hold back mental growth which might otherwise occur.

So, Postman says that television does not treat children like children—and thus far, and principally about the United States, he is largely right. Palmer agrees, and his co-critics propose two goals for public policy in this domain. The first is that screens should serve the diverse needs of children for education, entertainment, aesthetic appreciation, and knowledge about the world. The second is to protect children from content and advertising practices that exploit their special vulnerability.

Palmer points out that in the mid-1950s, when sets had to be sold into family households, there were thirty-two-and-a-half hours of children's material on weekdays in New York City network-affiliated stations. This fell to five hours by 1969, and since the removal of *Captain Kangaroo* in the early 1980s there has been no regular weekday programming for children on the three major commercial networks. The FCC in 1983 argued against imposing any quotas for children's material, pointing to the 56% of homes passed by cable, on which children's channels could be purchased. As Palmer notes, however, only 39% at that time actually subscribed to cable; and cable is generally laid first to wealthier neighbourhoods, leaving the sector of the public which most needs a well-

stocked service, on channels which they feel comfortable to use, least well served.

Palmer goes into the economics of programme provision. In 1987 he says US television cost (advertisers) \$97.50 per person. In Japan the public service broadcaster received \$11.93 per person, and the BBC in Britain had \$16.14 per person (to which should be added a similar amount for the two advertising supported channels). American Public Broadcasting received from charitable sources some \$5.40 per person. These incomes were used quite differently. In the relevant year the BBC provided 785 hours (590 of new product) of children's television, while US broad-

cast networks provided none (on weekdays), and while the PBS put out 88 hours of children's programming.

To illustrate the flavour of Palmer's frustration, he states that 'British youngsters are treated to the entire spectrum of light and serious fare on both the commercial and non-commercial sides. Only the United States leaves children poorly served through both public and commercial TV. The exception is that preschool children are substantially well served in the US on the side of public television'.

Perspective

Policy indications from these studies are clear. Television is capable of providing positive, educative and entertaining programming for children, which celebrates and enhances childhood; but such material is not likely to appear in accessible form to the whole population, especially those sectors which need it most, as an outcome of a solely market system. This kind of system, tempting to an adult society which puts hedonist goals to the fore, more readily provides material which on content and structure (sheer amount, timing, mannerisms) may be, even to a small extent, harmful for children. The corpus of research taken as a whole is certainly not as gloomy in its outcome as the most extreme pessimists take the truth about television to be. It is also a mistake to think of 'television' as a uniform entity, even if some of its 'architectural' characteristics may produce effects, regardless of the content of the programmes.

Television is diverse in its contents, some of which are benign, just as other aspects may (it is never certain) be harmful. The situation thus poses choices and these are not merely hedonist alternatives—of options to view one of several channels or one programme rather than another. The choices also involve the possible consequences of what is partaken, and these are also diverse, including the positive elements of learning, understanding facts and theories, enjoyment, and developing warmth for others, but the options also include the reverse of these. So the experience of viewing could engender misunderstanding, stereotypical thought, dissatisfaction with the viewing experience and contempt for others. There is the possibility that 'the system' of broadcasting management can help good choices, by narrowing the availability of material of dubious quality; but there is also the responsibility for the viewers to make the best of what is an astonishingly abun-

dant and efficient system of distributing beguiling information.

It is the function of researchers to establish and point out these facts - a duty which has to a considerable extent been performed. It needs to continue to be pursued, even if in future the industry may be dominated by market structures which may develop pressures away from funding or paying attention to such work.

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Current Research

Australia

Media Information Australia (PO Box 126, North Ryde, NSW 2113. Tel: 02-805-6611. Editor, **Professor Henry Mayer**) is a journal which is an effective point of contact with new Australian research as well as with world-reaching reviews.

Dr. Grant Noble (Dept of Psychology, Univ of New England, Armidale, NSW 2351. Tel: 067-73-3333) has published books and studies on the subject and recently issued a *Study Guide No.3*, on it.

Dr. Kevin Durkin (Dept of Psychology, Univ of W. Australia, Nedlands, WA 6009) is involved in a three-year study of 'Children, Crime and the Media: A Developmental Social Psychological Account'.

Belgium

The Bureau d'Études de la RIBF (Radio Télévision Belge de la Communauté Française, Local 10 M 1, Blvd Reyers 52, 1040 Bruxelles) issues *Cahiers*, collections of studies, periodically with invited contributions from the Low Countries and elsewhere. Issue No. 34, February, 1985, was on *Les enfants et la télévision*, with 13 papers, in French, but with English, German and Dutch summaries.

Canada

Prof. Joan Preston (Television Research Unit, Dept of Psychology, Brock University, St. Catharines, Ontario. Tel: 416-688-5550) has just completed a study among children aged nine to fifteen, relating the ways in which children think of themselves to their ideas about types of programmes, and to patterns of viewing behaviour.

André H. Caron (Groupe de recherche sur les jeunes et les médias, CP 6128, Succursale A, Université de Montréal, Québec H3C 3J7. Tel: 514-343-7739) has published a brochure on children's television, in collaboration with the Children's Broadcast Institute, 234 Eglinton Ave East, Suite 405, Toronto, Ont M4P 1K5., from which other studies are also available.

Germany

Prof. Helmut Lukesch, with eight colleagues, has published *Jugend Medien Studie*. Regensburg: S. Roderer, 1989. Prof. Lukesch (Inst für Psychologie, Univ Regensburg, Universitätsstr. 31, D-8400 Regensburg. Tel: 0941-943-2143) can supply bibliographies of work on children and television.

Werner Müller and **Manfred Mayer**, Internationales Zentralinstitut für das Jugend- und Bildungsfernsehen. Rundfunkplatz 1, D-8000 München 2. (Tel: 089-5900-2140), have published literature reviews in English listing worldwide sources.

Dr. Ulrike Six (Deutsches Jugendinstitut, Freibadstraße 30, D-8000 München 90) supervises several projects on Children and Television.

Holland

Dr. T. H. A. van der Voort (Ctr for Child and Media Studies, Leiden Univ, Rijnsburgerweg 169, 2334 BP Leiden. Tel: 01131-7124078).

Hungary

Dr. Tamas Szecko (Magyar Radio es Televizio, Tomegkommunikacios, Kutatokozpont, Akademic Utca 17, H-1054, Budapest) is a point of contact for research in his country, which is of a high standard.

Japan

The Nippon Hoso Kyokai (Japan Broadcasting Corp) has a Theoretical Research Centre (2-1-1 Atago, Minato-ku, Tokyo 105. Tel: 03-433-5211). Other Japanese researchers, such as **Professor Takeo Suzuki** (Inst of Journalism and Communication Studies, Univ of Tokyo) can be contacted via the NHK Centre.

The Hoso-Bunka (Broadcasting Culture) Research Foundation supports important projects on preschool children's experience of television. It is at: Kyodo Bldg. 41-1 Udagawa-cho, Shibuya-ku, Tokyo 150. Tel: 03-464-3131).

Scandinavia

The **Nordicom** organisation has documentation centres in each of the member countries. There is a *Newsletter* for which the editor is in Sweden and the Documentation Centre in Denmark, which provides an *Annual Bibliography of Nordic Mass Communication Literature*. The 1988 edition lists several hundred review articles and original studies, for some of which there are English summaries. It mentions the *Newsletter of NEQTAR* (Network on Qualitative Audience Research) which reviews work world wide, and is edited by **Klaus Bruhn Jensen** at Univ for Litteraturvidenskab, Copenhagen.

Ulla Carlsson, Statsvetenskapliga Institutionem, Goteborgs Universitet, Box 5048, S-40221, Goteborg. Tel: 031-63-12-19.

Peder Gronggaard, Nordicom, Statsbiblioteket, Universitetsparken, DK-8000.

South Africa

The Human Sciences Research Council (Private Bag X41, Pretoria 0001. Tel: 012-202-9111) carries out studies in a wide variety of fields. **H. C. Marais** (Ed.). *South Africa: Perspectives On the Future*. Pinetown: Owen Burgess, 1988. contains a chapter by **N. J. Rhodie**, 'Reform: The Way To A Democratic Socio-Political Order in South Africa', in which he states 'on the highest level of specificity...reform focusses on the dismantling of political apartheid...' Most of their current work is to be evaluated in the context of their awareness of this context, albeit in a cautious demeanour. Researchers at the HRSC include **Elirea Bornman** who has studied perceptions among black and white children of *The Cosby Show*, and **Dr. D. P. Conradie** who, with **M. Heyneke** and **M. P. Botha** wrote a report, *The Effect of Television Violence on Television-Naïve Pupils: A Follow-Up Study Over Five Years*. 1987.

United Kingdom

Dr. Anne Shephard (Dept of Psychology, Univ of Leeds, Leeds LS2 9JT) is continuing studies of children and television, funded now by the Broadcasting Standards Commission.

Barrie Gunter and **Jill McAleer** have written a new book, *Children and Television: The One-Eyed Monster?* which will be published by Methuen, London, in July, 1990.

Dr. Andrew Colman (Dept of Psychology, Univ of Leicester. Leicester LE1 7RH . Tel: 533-522522) has studied influences of the schedule context on perceptions of particular programmes - does what you saw before affect what you make of what you are now viewing? To some extent it does. Enquiries to Dr. Colman.

United States

The Center for Research on the Influences of Television on Children (CRITC) at the University of Kansas, Lawrence, Kansas 66045-2133. Tel: 913-864-4840) is a point of contact for a Newsletter which lists addresses, mostly in the USA, but also worldwide, and which runs brief reviews on ongoing research. The editorial circulates among members.

Professors Jerome and Dorothy Singer (Yale University, New Haven, CT 06520. Tel: (203) 432 4771) have written two new books: *Children's Play and The Emergent Imagination*. Harvard Univ Press, 1990. and *A Parent's Guide To Television Viewing*. Acropolis Books, 1990.

Professor Bradley Greenberg (Dept of Telecommunications, Michigan State Univ, East Lansing, MI 48824-1212. Tel: 517-353-6629) has produced reports on adolescents' viewing of sex on television, including content and perception analyses. Also, four Far Eastern countries form the start of a multi-nation account of schoolchildren's reports of uses of television and other message systems. US and European parallel studies follow.

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