
Recent worldwide studies on the viewing habits of children emphasize the large amount of time spent viewing television and the potential influence that television has to shape the behavior of children. Extensive research has investigated the short and long term effects of viewing television violence, and the results, though complex, suggest that children do learn interpersonal behaviors by observing models presented in television programs. Combined with some fundamental principles of social learning, these findings have led to the design and production of interventions aimed at promoting specific educational and social skills. Results of using such interventions show that social behavior can be enhanced by exposure to appropriate role models via television programming.
Beyond Entertainment: Television's Effects on Children and Youth

John P. Murray
School of Behavioural Sciences
Macquarie University

Early in the history of television, researchers in various countries became interested in the possible effects of this new medium. Pioneering studies such as those of Himmelweit, Oppenheim and Vince (1958) in Great Britain; Schramm, Lyle and Parker (1961) in North America; Campbell (Campbell, 1970; Campbell & Keogh, 1962) in Australia; and Furu (1962; 1971) in Japan provided the first detailed information on viewing patterns and the effects of the introduction of television. The results of these early studies converge in suggestions that the introduction of television was associated with changes in the child's vocabulary, fund of general knowledge, leisure activities, and patterns of play. However, with regard to direct effects on the child's interpersonal behaviour, these surveys failed to isolate clear increases or decreases in either aggressive or prosocial behaviour. Nevertheless, the major issues raised in these early studies forshadowed the focus of current research.

The research framework exemplified both in these early and recent studies rests on the assumption that television is more than mere entertainment. Television is considered to be a purveyor of
attitudes and values which play a role in modifying the viewer's behaviour. The perception of television as an electronic teacher is a view shared by many consumers of the medium. Indeed, longitudinal studies of viewer evaluation (Bower, 1973; Steiner, 1963) indicate that a continuing prime function of television is its educational role in providing a window on the world. To be sure, not every viewer perceives the same world in the same manner. Recent research suggest that each programme conveys a variety of messages to a variety of viewers. The message conveyed to a four-year-old child may not be similar to that which is understood by his or her parents, but it is a message capable of producing effects. In this regard a series of studies by Collins (1970; 1973) and Leifer and Roberts (1972) have demonstrated that the child's understanding of the motivations and consequences associated with various acts portrayed on television increases with age. The older child understands the subtle aspects of the message while the younger child recalls discrete events dissociated from their context. Despite individual variation in response to specific programmes it is possible to outline the general effects of television viewing. Therefore, the purpose of this paper is a review of recent research on television's role in modifying children's interpersonal behaviour.

Children's Viewing Patterns

A catalogue of the television programmes preferred by children
and the extent and duration of their viewing, in conjunction with a
description of the content of these available programmes, provides a
fairly comprehensive picture of the child's television world.
Studies conducted in Great Britain (Himmelweit, et al., 1958) and
North America (Lyle & Hoffman, 1972; Murray, 1972; Schramm, Lyle &
Parker, 1961) have indicated that children view between two and
three hours of television each day; that the amount of time devoted
to this medium increases as the child grows older; that the peak in
television viewing occurs in the preteen years with a subsequent
decline in viewing time for teenagers. Furthermore, among very
young children, the brighter child tends to spend more time watching
than his less bright peer but this pattern is reversed in the early
school years when the brighter child turns to other activities.
Another major factor that influences the amount of time devoted to
socioeconomic level of the family, with children
television is the socioeconomic level of the family, with children
from less affluent homes spending more time viewing television.
Relatively similar findings have been reported in a study of
Australian youth by Tindall and Reid (1975). In this survey of the
television viewing habits of 787 Sydney children and youth (ages
5 to 18) Tindall and Reid found that the children viewed an average
of three hours and three minutes each day, with heavier viewing on
weekends than on weekdays. Furthermore, there was a consistent
rise in the amount of time devoted to television in the older childhood (7 to 9 years) and preteen (10 to 12 years). Although there were no significant sex differences in amount of viewing, there was a strong tendency for children from families of lower socio-economic groups to view more television (average increase of 1.5 hours per day). In addition, brighter children and those who were "over-achievers" in school performance, tended to spend less time viewing television. Somewhat similar findings have been reported in a study of students in Sydney Catholic schools (Canavan, 1974) with the added proviso that in many homes (43%) children are the main controllers of the television set. Indeed, Canavan reports that parents exercised control over the television set, not necessarily children's viewing, in only 27% of the families surveyed.

Programmes Viewed

Perusal of the weekly television schedules initially suggests that the child is confronted with an endless array of varied programme content. To some extent, it seems reasonable to suggest that the diversity of programme types reflects a diversity of programme content. Indeed, the programmes available to Australian children range from Playschool and Sesame Street to Division 4, Matlock Police, The Six Million Dollar Man, Police Woman, Homicide, Cannon, Columbo, Adam 12, Hawaii Five-O, Gunsmoke, Softly Softly Task Force, and The Avengers. Of course, violence is not the only theme nor are all programmes
violent. For example, Tindall and Reid's (1975) study indicates that *The Six Million Dollar Man* is hotly pursued by *The Brady Bunch* in terms of favorite programmes. However, violence does seem to be one major interlocking element in the construction of a composite picture of children's television. The level of violence on American television has been documented by Gerbner's (1972) detailed content analyses of several years of programming. Although there are no comparable content analyses of Australian television, a large proportion of the television diet consists of American imports: the programme schedules provide a similar menu. According to Gerbner's (1972) earlier analysis, eight out of every ten plays broadcast during the survey period in 1969 contained some form of violence and eight violent episodes occurred during each one-hour of broadcasting. Furthermore, both Gerbner and Barcus (1971) have demonstrated that programmes especially designed for children, such as cartoons, are the most violent of all programming. More recent studies by Gerbner and Gross (1974; 1976) have indicated some decline in violence from 1969 to 1975, in terms of the prominence of killing, but they conclude that "...violence remained a (or perhaps the) staple element of dramatic programming..." (1974, p.30). Thus, in this more recent analysis, lethal aggression was modified but the use of aggression as a definer of social power remained an important theme in television drama.
Televised Violence

Does extensive exposure to violent television programmes have any effect on the viewer? Certainly there are a multitude of factors that enter into any such equation. Klapper (1960) has pointed out that: "by and large, people tend to expose themselves to those mass communications which are in accord with their existing attitudes" (p.19). There can be no argument with the notion that these selective attention factors must be considered in attempting to assess the impact of a particular stimulus, and, as we have noted previously, the multiple messages conveyed in a television programme are very complex. However, a number of researchers and commentators (Bandura, 1973; Berkowitz, 1973; Liebert, Neale, & Davidson, 1973; Murray, 1973) have maintained that the overwhelming consistency of the violent television stimulus is very likely to produce increased aggressive behaviour. The empirical evidence upon which this assertion is based issues from a large body of data generated within a social learning theory framework. Early studies, conducted by Bandura and his colleagues (Bandura, Ross & Ross, 1961; 1963), presented young children with a film, back projected on a television screen, of a model who displayed novel aggressive behaviour toward an inflated plastic doll. After viewing this material, the child was placed in a playroom setting and the incidence of aggressive behaviour was recorded. The results of these studies indicated that
children who had viewed the aggressive film were more aggressive in this setting than those children who had not observed the aggressive model. These early studies were criticized on the grounds that the aggressive behaviour was not meaningful within the social context and that the stimulus materials were not representative of available television programming. Subsequent studies have attempted to deal with these issues and have provided a more elaborated description of the processes involved children's learning from the media.

In a recent study conducted by Stein and Friedrich (1972) preschool children were presented a "diet" of either "antisocial", "prosocial", or "neutral" television programmes. The antisocial diet consisted of twelve half-hour episodes of Batman and Superman cartoons. The prosocial diet was composed of twelve episodes of Misterogor's Neighbourhood (a programme that stresses such themes as sharing possessions and cooperative play). The neutral diet consisted of children's travelogue films. The children were observed through a nine-week period which consisted to two weeks of previewing baseline, four weeks of television exposure and three weeks of follow-up. All observations were conducted in a naturalistic setting while the children were engaged in daily activities. The observers recorded various forms of behaviour that could be regarded as prosocial (i.e. helping, sharing, cooperative play) or antisocial (i.e. arguing, pushing, breaking...
toys). The overall results indicated that children who were adjudged to be initially somewhat more aggressive became significantly more aggressive as a result of viewing the Batman and Superman cartoons. Moreover, the children who viewed Mistero's Neighbourhood became significantly more cooperative, willing to share toys, and help other children.

There are, of course, some moderating variables in the violence-viewing-to-aggressive-behaviour equation which, as we mentioned earlier, some researchers have described as "selective attention" or "perceptual screening". A study by Ekman and his associates (Ekman, Liebert, Friesen, Harrison, Zlatchin, Malmstrom and Baron, 1972) was designed to investigate this aspect by assessing the relationship between children's emotional reactions while viewing televised violence and their subsequent aggressive behaviour. Children's facial expressions were unobtrusively videotaped while they watched a segment of a violent television programme. Later the child was placed in a social setting where he could either help or hurt another child. The results demonstrated that children whose facial expressions depicted the positive emotions of happiness, pleasure, interest or involvement while viewing televised violence were more likely to hurt another child than were children whose facial expressions indicated disinterest or displeasure in such television programming.

The long-term retention of behaviours learned via observation of
televised models has not been extensively investigated. Although Hicks (1965) demonstrated retention of modelled behaviour over a six-month period, most studies are of relatively short duration. However, Lefkowitz and his associates (Lefkowitz, Eron, Walder & Huesmann, 1972) attempted to answer some of the complex questions about the impact of televised violence by assessing the relationship between preferences for violent television programmes during early childhood and subsequent, socially significant aggressive behaviour when these subjects were adolescents - ten years later. The investigators obtained peer rated measures of aggressive behaviour and preferences for various kinds of television, radio, and comic books when the children were eight years-old. Ten years later, when the subjects were eighteen years-old, the investigators again obtained measures of aggressive behaviour and television programme preferences. Eron (1963) had previously demonstrated a relationship between preference for violent media and aggressive behaviour at age eight but the questions now posed were: Would this relationship hold over a long segment of the child's life span; and could adolescent aggressive behaviour be predicted from knowledge of the subject's television viewing habits in early childhood. Using a cross-lagged correlational design it was possible to describe potential causal agents in the television violence-to-aggressive behaviour equation. The results indicated that preference for
television violence at age eighteen was significantly related to aggression at age eight (r=.21) but preference for television violence at age eighteen was not related to aggression at age eighteen (r=.05). When the cross-lagged correlations across the ten-year span are considered, the important finding is a significant relationship between preference for violent television programmes at age eight and aggressive behaviour at age eighteen (r=.31).

Equally important is the lack of relationship in the reverse direction (that is, preference for television violence at age eighteen and aggression at age eight: r=.01). The authors suggest that the most plausible interpretation of this pattern of correlations is that early preference for violent television programming plays a causal role in producing aggressive and antisocial behaviour when the young boy becomes a young man.

The studies discussed above are representative of a large number of relatively recent investigations which had been designed to address the criticism of earlier research within the social learning framework. For example, a recent study by Drabman and Thomas (1974) demonstrated that children who had viewed an aggressive television programme were reluctant to intervene in or attempt to terminate the destructive aggressive behaviour of younger children. Similarly, Steuer, Applefield and Smith (1971) demonstrated that preschool children who viewed aggressive television
programmes over a ten-day period were more aggressive than their matched controls who viewed non-aggressive programming. The significant features of this latter study are the meaningful social context of aggression (e.g. assaulting other children in the preschool) and the cumulative effect of viewing the aggressive programmes (that is, more aggressive on day-10 than on days 1 or 2). However, it should be noted that not all children became significantly more aggressive. Thus, Steuer et al.'s (1971) results point to the individual differences demonstrated in the studies by Stein and Friedrich (1972) and Ekman, et al. (1972). But despite the complexity of the results, these studies support a consistent social learning theory interpretation which suggests that children can learn (or display previously acquired, disinhibited/instigated) significant interpersonal behaviours through observation of models presented on television.

Television Catharsis

Thanding in opposition to these accumulated findings on the effects of media violence is a major study by Feshbach and Singer (1971) which suggests that viewing televised violence reduces the likelihood that the viewer will engage in aggressive behaviour. The theory underlying this study stipulates that the child who views violence on television vicariously experiences the violence, identifies with the aggressive actor, and thereby discharges his
pent up anger, hostility and frustration. In this study, adolescent and preadolescent boys were presented with a "diet" of either aggressive or nonaggressive television programming over a six-week period while the researchers concurrently measured the day-to-day aggressive behaviour of these boys. The results indicated that, in some cases, the children who viewed the nonviolent television programmes were more aggressive than the boys who viewed the aggressive programmes. However, this research has been seriously questioned on methodological grounds (see: comment, Liebert, Sobol & Davidson, 1972; reply, Feshbach & Singer, 1972a; counterattack, Liebert, Davidson & Sobol, 1972; punch, Feshbach & Singer, 1972b). For example, the reliability of the main measure of aggressive behaviour, daily ratings by institutional personnel (e.g., teachers, houseparents, etc.), was not clearly established during the study. Furthermore, the raters were untrained and knowledgeable about the treatment condition to which their ratees were assigned. In another instance, boys who were supposedly restricted to nonaggressive programmes were, in fact, allowed to routinely view their favorite programme, Batman. However, a more general problem is one of interpreting the predictions derived from catharsis in light of other available research. To wit, if viewing televised violence leads to a decrease in aggressive behaviour then, in various other correlational studies, preference for a viewing of violent programmes
should be inversely related to aggressive behaviour (i.e., aggressive children should not prefer aggressive programmes).

Of course, this is not the case. As Chaffee (1972) points out, children who are more aggressive are also more likely to prefer and view televised violence. At this point in the state of available research, the most viable interpretation of these discrepant findings is the suggestion that although for some children under some circumstances viewing televised violence may enable the child to discharge some of his aggressive feelings, for many children under many circumstances viewing aggression on television leads to an increase in aggressive feelings, attitudes, values and behaviour.

Socially Valued Behaviour

In reviewing the extensive literature on the topic of television and children it is apparent that researchers have focussed on the issue of televised violence and virtually excluded other forms of interpersonal behaviour which might be acquired from television (c.f., Murray, Nayman & Atkin, 1972). However, it seems reasonable to assume that "prosocial" or socially valued behaviours such as sharing, cooperation or helping could be learned as easily as assaulting. Despite the paucity of research in this area there are some suggestions which may be derived from related studies. For example, several studies (e.g., Bandura & McDonald, 1963; Cowan, Langer, Heavenrich & Nathanson, 1969;
Murray, 1974; Singer & Singer, 1974) have demonstrated that, under certain conditions, a child's moral judgment, cognitive behaviour, manner of conceptualizing the world, and fantasy play can be modified by simply observing a live or televised model for only one brief occasion. The study by Stein and Friedrich (1972), which was discussed earlier, found that even a relatively brief exposure (2 half-hour episodes) to television programs that stressed the themes of sharing and cooperative behaviour, produced significant changes in the child's subsequent prosocial or altruistic behaviour with his or her playmates. Other researchers (Bryan and Walbek, 1970) have demonstrated that exposure to a model who "practices" and "preaches" generosity can increase the likelihood that the viewer will adopt this mode of behaviour.

The results of research on the basic processes of social learning theory can be used to develop a series of television programmes designed to foster specific educational and social skills. Perhaps, the most familiar example of this formative and evaluative research is the activities of the Children's Television Workshop in developing Sesame Street (Ball & Bogatz, 1970; Palmer, 1973). In this instance, the formative research was focussed on developing and assessing procedures for facilitating both educational and social skills. A recent addition to this trend in children's television
is Fat Albert, a series of programmes developed by the Columbia Broadcasting System. Each episode in the series is designed around one major theme with a variety of related prosocial messages embedded in the programme. In assessing the effectiveness of this format for transmission of socially valued information, the researchers (Columbia Broadcasting System, 1974) interviewed children who had viewed an episode of Fat Albert under either "captive" or natural viewing conditions. In the captive condition children were presented with a videotape of an episode and interviewed immediately after the viewing period. In the natural viewing condition, interviewers contacted the children within five hours after the episode had been broadcast on national television. The results indicated that approximately 90 per cent of all children interviewed could recall at least one prosocial message. Furthermore, there was no significant difference between the captive and natural viewing conditions in terms of the number of children receiving one or more prosocial messages.

Additional programme formats designed to facilitate socially valued attitude change have been evaluated by Roberts and his colleagues (Roberts, Herold, Hornby, King, Sterne, Whiteley & Silverman, 1974). A children's television series entitled Big Blue Marble was developed to encourage international awareness, in children, of the life styles of children around the world. Roberts,
et. al. assessed the effectiveness of this programme by presenting young viewers with four episodes of this series and measuring pre/post attitude change in a variety of areas such as ethnocentrism and perceived similarity. Among the major findings were increases in perceived similarity and well-being of children around the world and a decrease in endorsement of ethnocentric beliefs.

The results of an increasing number of studies designed to facilitate socially valued behaviour suggest that this behaviour may be enhanced by the child's observation of appropriate role models on the television screen. Moreover, the principles governing the acquisition or disinhibition of socially valued behaviours do not differ from those governing the display of aggressive behaviour.

Epilogue

The model of communication effects described in this analysis is based on principles derived from social learning theory. The major tenets of this theory combine to suggest that children and adults can modify their behaviour patterns as a result of observation of the behaviour of models in their immediate environment (Bandura, 1969). These exemplars may be parents or peers, teachers or television but each model conveys a message concerning the sanctions applying to the behaviour displayed.

Whether the messages transmitted by television are received,
understood and enacted is a complex question. For example, Katz and his associates (Katz, Gurevitch & Haas, 1973) in studying the uses and gratifications of the mass media, have suggested that audience members can, to some extent, select specific media to gratify particular personal/social needs. However, television is a peculiarly difficult medium because it is readily available and seems to serve a wide variety of needs. Indeed, Kippax and Murray (1975; 1976), in studying the media-related need gratification strategies of urban Australian adults, found that television served diverse groups of needs including those concerned with acquiring socio-political information, establishing/maintaining closer relationships with one's family and escape or diversion. However, preliminary results of a study of the introduction and diffusion of television in several rural Australian communities (Murray & Kippax, 1976) indicate that the perception of television as an information vs. entertainment source is related to one's current experience with this medium. For example, when television is not available in a community it is primarily perceived as an entertainment medium but even brief experience with television leads to the perception that television is an important medium for both entertainment and information. Moreover, Brown, Cramond and Wilde (1974), in studying the introduction of television in a small Scottish
community, found that the availability of television immediately
displaced other media as the child's major vehicle for need
gratification.

Television can serve a variety of functions for various viewers.
And it seems reasonable to assume that factors relating to the
viewer's perception of the function of television can intervene to
determine the effect for a particular individual. Nevertheless,
the research reviewed in the preceding sections suggests that the
observation of televised models can result in modification of the
viewer's behaviour. Thus, television, as a major source of messages
relating to a wide variety of social behaviour, is an important
influence in the lives of our children, an influence that extends
far beyond entertainment.
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2 Author's address: Department of Psychology, School of Behavioural Sciences, Macquarie University, North Ryde, N.S.W. 2113, Australia.
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SCHOOL OF BEHAVIOURAL SCIENCES,
MACQUARIE UNIVERSITY,
NORTH RYDE, SYDNEY, N.S.W. 2113
AUSTRALIA.
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