THEORETICAL BACKGROUND

Since its availability, television's appeal has burgeoned, and much of children's leisure-time is now spent in front of the television set. By way of illustration, in the UK 4- to 15-year-olds tend to view for around 18.5 hours weekly (Office for National Statistics, 1998). Even so, despite this popularity, television has regularly attracted criticism due to claims that watching aggression (e.g. murders, rapes, bullying, theft) provokes violent behaviour in viewers.

Nevertheless, evidence underpinning claimed links is often suspect. Much of this doubt derives from the disparate methodologies used to examine links between viewing and viewers' behaviour. For instance, laboratory studies often make robust claims that viewing aggressive acts encourages imitations of them (e.g. Bandura, 1986) and weakens restraints about behaving aggressively (Potter et al., 1996). However, generalisations of findings to real-life settings remain questionable for although laboratory studies permit causal
inferences they tend to measure only immediate or short-term behaviours, and exclude natural consequences of behaviour. Field study methodologies incorporate more realism (e.g. naturally occurring consequences are usually present) yet with diminished experimental controls. Whilst some outcomes lend support to laboratory findings, results often need to be treated cautiously as subjects are frequently atypical (e.g. youngsters from institutions and others who are initially more aggressive). Finally, the quasi-experimental inquiry though lacking experimental controls, provides scope for effects to be observed in real life. Yet results are often discrepant. Whilst Joy et al. (1986) found rates of anti-social behaviour among pupils increased significantly two years after the availability of television, others have failed to replicate these findings (e.g. Weigman et al., 1992). Moreover, too few opportunities have arisen for pre-television data collections in quasi-experimental settings to allow for convincing claims, or counterclaims, for television effects.

However, an alternative explanation may account for at least some of this dissension. Whilst viewers can learn anti-social behaviours from their viewing, they need not practise them, for among the mediators of such links is the social context within which behaviour
occurs (e.g. the home, neighbourhood and wider community). Consequently, whether or not learned aggressive behaviours are practised depends largely upon 'complex interactions among members of a group' (Joy et al., 1986, p. 313), the outcomes of which may ignore, cue, reinforce or discourage behaviours acquired from TV-viewing. Thus, social context variances among field and quasi-experimental inquiries may help account for conflicting findings. Although laboratory experiments offer empirical support for this reasoning (e.g. Bandura, 1978), few opportunities have arisen to consider this in a naturalistic setting. This neglect is unfortunate, for one way of testing the thinking in real life is to locate a television-naive community with low rates of anti-social behaviour among pupils and a social climate which watches over, and checks, their behaviour; and then to monitor pupils' behaviour across the availability of television. If the community’s social climate remains influential, then television's availability should have little impact upon behaviour.

Fortuitously, the island of St Helena provides opportunities to undertake this inquiry. The project offers exceptional scope to study television's effects in an unaltered natural setting since significant evidence was gathered on measures of young children's social
behaviour in the pre-television phase (Phase 1), showing youngsters to be among the most adjusted and industrious world-wide.

RESEARCH SETTING

St Helena, a British colony in the South Atlantic Ocean with a population of 5644 (1994 census), is among the world’s most isolated populated islands. It occupies a land mass of 121 square kilometres at the intersection of latitude 15° 56’ south and longitude 5° 43’ west. The island is without daily newspapers, a cinema, regular public transport, an airport and until recently, broadcast television. Satellite television (CNN) was transmitted to St Helena for the first time in March 1995. Since then, the local television network has expanded to incorporate two channels offering a mix of CNN, Hallmark (films), Discovery Channel, SuperSport and Cartoon Network. Viewing is possible ‘around the clock’. The introduction of broadcast television represented a major event on the island, whose only televisual experience had been through video. The new televisual experience comprised an intervention in the local environment that set in place an opportunity for a quasi-experimental investigation to be undertaken into the impact of broadcast television upon social behaviour in terms of content and displacement effects.
DATA COLLECTIONS

The St. Helena project began collecting data in November 1992, over two years before the inception of broadcast television, to establish baseline measures on key variables that would feature as central aspects of the study. These included measures of how children on the island spent their leisure-time, measures of their classroom (on-task levels) and around school social behaviour as well as their interactions in free-play settings in playgrounds. This meant that significant evidence was amassed on the status of young children’s behaviour patterns in an environment devoid of broadcast television and, indeed, with only limited other audio-visual experiences. The project has continued since that time, and data have been collected annually from the island on the key dependent measures just mentioned. In addition, since 1995, data have also been collected on children’s television viewing behaviour, parental mediation of their viewing, older students’ perceptions of television’s influence and on the nature of the television output. The St. Helena project has, therefore, provided a rare opportunity to study in depth a series of relationships between children’s experience of television and different aspects of their behaviour.
Although this is not the first project of its kind, it has attempted to learn from previous studies that have been conducted in the United Kingdom, United States, Japan, Canada and South Africa. In so doing, the St. Helena project has adopted a multi-methodological and multi-disciplinary approach to data collection. The research team comprises specialists from the fields of anthropology, communications, sociology, education, and psychology, and data have been collected through quantitative and qualitative research techniques. Self-report data from the children have been supplemented by data provided by older students, parents and teachers. They have been also obtained at aggregated group levels as well as from individuals. Both of these collection approaches have their strengths and limitations. For example, the micro analysis enables a potentially more precise study of individual characteristics but may place limitations on the extent of generalisability from what will be normally a small sample. However, the micro level study also holds out more potential for pinpointing causal factors. On the other hand the use of grouped data (i.e. working at the macro level), will usually produce a more robust and more reliable analysis in statistical terms but only reveals associations or correlations between variables rather than directly examining possible causation. The two
methods are ideally complementary - the one throwing up findings and hypotheses which the other can test.

Thus, a number of distinct perspectives have been integrated within the research project to help yield a rounded understanding of the impact of broadcast television in the remote community of St. Helena.

RESEARCH STUDIES

Children's leisure-time pursuits on pre- and post-TV occasions:

9- to 12-year-old children on St Helena kept diaries of their leisure-time behaviour at various stages before and after the introduction of broadcast television. The first diary-survey took place in October 1994 (pre-TV), the second approximately eight months after the introduction of CNN broadcasts, the third in February 1997, after the addition of further services (i.e. Hallmark [films], Discovery Channel, Super Sport and Cartoon Network) and the fourth in October 1998. Overall, the children of St Helena seem to have taken to watching television enthusiastically, but not (for the great majority) to the extent where their lives have become dominated by
it. The children continued to engage in a wide range of out-of-home and in-home activities, with no great shift from one to the other to provide for their viewing time. In 1997 the 'losers' appeared to be activities that involved little prior organisation or others - like sleeping and eating - which already took up large amounts of time and where 'losing a little' made small difference. By far the greatest loser between 1994, and 1997 and 1998 was watching video.

Over the longer term, it seems that the novelty effect of television has faded. This is indicated through a comparison of the results of the 1997 and 1998 surveys, by both a fall in the number of one-hour time diary slots filled by watching TV and the decline in the proportion of choices it received as the activity 'enjoyed most of all'. Overall, the biggest gainers from the same period were sleeping, unorganised indoor play and unorganised outdoor play which were amongst the biggest losers between 1994 and 1997. The position is also complicated by the fact that for the period February 1997 to October 1998, watching video has been a bigger loser than watching TV and that falls in active participation in sports, swimming and activities with animals have also been substantial. All of the biggest gainers from 1994 to 1997 experienced losses from 1997 to 1998. However, the shifts in activity are by no means unidirectional. It is
clear that the overall pattern of leisure activities of the children of St Helena is undergoing a process of change in which television-viewing habits are merely one factor.

This research is reported in:


Teachers' ratings of nursery class children's behaviour across the availability of broadcast TV:

Subjects were 1993 and 1998 cohorts of same-aged boys and girls receiving nursery provision. Nursery children were chosen because their dynamic quest for learning, the amount of time they spend viewing and their proclivity to imitation suggest they may be the
most susceptible to influences of television. McGuire and Richman's (1988) Pre-School Behaviour Checklist (PBCL) was used to rate children's school behaviour. The checklist includes 22 items mainly on emotional functioning, conduct problems, social relations and concentration. Most items allow choices between three behavioural descriptions scored 0 (no problem), 1 (possible problem) or 2 (definite problem). The maximum score available is 44.

In 1993 (pre-TV), and 1998 (post-TV) nursery teachers completed the PBCL for children in their classes. Completed checklists were marked by researchers. In the absence of a directional hypothesis, data from cohorts were subjected to two-tailed t tests. In the post-TV phase, random samples of pupils (N=14) were rated again by nursery class assistants to provide a rater reliability check.

Inter-rater reliability for nursery teachers' and nursery assistants' ratings was 0.86. Across the availability of broadcast television, nursery class teachers' ratings of their children's social behaviour showed a continuance of most of the good behaviour noted prior to the availability of television. Moreover, no significant pre-/ post-TV increases were noted for the kinds of anti-social behaviours television is often accused of inducing (e.g. "fights", "interferes with
others", "teases", "difficult to manage", "destructive"). Even so, compared to the 1993 cohort, 1998 cohort boys were rated as having lower concentration and higher activity levels, being both more fearful and more inclined to whine. Such changes may be unconnected to the arrival of television. However, Singer and Singer (1986) argue that viewing high action, fast paced programmes can contribute to children’s restlessness and fearfulness.

This research is published in:


First school children’s playground behaviour across the availability of television:

Participants in this study were boys and girls in two school playgrounds for 3.5 - 8-year-olds. Young children were selected for this inquiry because, compared to their older peers, they are less likely to be aware of being observed, are less self-conscious in playground settings and their proclivity to imitation suggests that they are more prone to be affected by their television viewing. Their free-play behaviour was video-recorded in 1994 (pre-TV), 1997,
1998 and 2000 (all post-TV). Recordings were undertaken during break periods and were completed within 2-weeks. Children entered into, and exited from, the video frame at will. 968 minutes of filming were made over the 3 years.

Video-taped behaviours were coded by trained coders (N=6) using the Playground Behaviour Observation Schedule which includes 26 behaviours (e.g. games; fantasy play; character imitation, anti-social and pro-social behaviour) and the number of pupils involved in each behaviour (i.e. 1, 2, 3-5 and 6+). Coders were trained. Thereafter, coding took place in pairs, with pairings changed at regular intervals. All 56 coding sessions were preceded by reliability checks. Coding commenced only when the 75% agreement level was reached.

With boys and girls scores combined, the mean rate of anti-social behaviour declined from 16.4 events per 30 minutes in 1994, to 14.5 in 1997, and to 9.0 events in 1998. Boys’ mean rates of anti-social behaviour decreased from 9.33 in 1994, to 9.00 in 1998. The 1997 mean rate was 10.08. No statistically significant changes in anti-social rates were found either for rates overall (boys and girls combined), or for boys. For girls, mean rates across the three years
showed a significant decline. Analyses were also undertaken across years - with genders separated and combined - for each of the four categories of anti-social behaviour (Gesture, verbal; Kicking, pushing, hitting; Seizing, damaging property; Non-compliant holding, forcing). Only one category showed a statistically significant change (i.e. non-compliant holding, forcing). Compared to girls in earlier cohorts, girls in the 1998 cohort evidenced significantly fewer physical acts of aggression of this type. (Pro-social behaviours in playgrounds have been coded but not yet analysed.)

An important detail should not be overlooked when interpreting this study's results. It was not possible to link the behaviour of the children at the individual level to their personal viewing patterns. Further, there could be no control over changes in children's social and cultural environment. Even so, at an aggregated group level, only two behaviour changes were observed that reached statistical significance, and both were inconsistent with the direction of change reported in the large majority of other studies reporting on viewing effects. As such, this study's findings challenge simplistic notions that viewing television leads to increased levels of anti-social behaviour.
This research is reported in:


- Warden, M., Panting, C., & Charlton, T. (in prep.) Children's pro-social communications before and after the arrival of broadcast TV.

The nature of the television output:

An important part of the project was the analysis of TV output which focused on the violence content in programmes on the five television services (CNN, Hallmark, Discovery Channel, SuperSport and Cartoon Network) in order (1) to establish the nature and extent of violence on St Helena TV for comparisons with other countries and (2) to collect data to combine with children's reported TV
viewing (see bottom of page 19) in order to produce a measure of exposure to televised violence and relate it to children's social behaviour.

Two sets of broadcast television output were video-recorded over three-day periods in 1997 and 1998. Recordings were made in two spells (06.00-09.00 and 15.00-24.00) on Tuesday and Thursday and for one continuous spells (06.00-24.00) on Sunday. A total of 153 programmes were recorded in 1997 and 136 programmes in 1998. Coded programmes were classified into 27 different genres that were clustered into five super-ordinate-genres: drama, children's programmes, sport, factual, and miscellaneous (entertainment and music/arts/religion). Advertisements were not coded. Four broad categories predominated: drama (including cinema films and drama programmes from Britain, the USA and elsewhere), children's cartoons, sports (live and recorded highlights), and factual programmes (including news, current affairs, documentaries and magazine programmes).

Data were obtained through content analysis. Violence was defined as "Any overt depiction of a credible threat of physical force or the actual use of physical force, with or without a weapon, which is
intended to harm or intimidate an animate being or a group of animate beings”. A number of specific features of the violence and its setting were then catalogued (e.g. the historical setting of action, the country where it took place, the motivational context of the violence). Finally, coders noted the gender, ethnic origin, age and occupational/dramatic role type of aggressors and victims in each violent act, and for the aggressors, made a note of their individual goals or motives for being violent. Coders underwent detailed pre-analysis training. Inter-coder consistency was checked satisfactorily both quantitatively and qualitatively.

The findings for St. Helena can be benchmarked against the violence observed on UK TV during the 1994-1996 period. Average rates of occurrence of violent acts in violent programmes and average amounts of violence in minutes per violent programme were found in 1997 to be lower in St Helena than in the UK (9.6 acts versus 10 acts; 0.59 minutes versus 1.55 minutes). In 1998, the average rate of violence per violent programme on broadcast television in St. Helena fell to 8.4 acts, but the average amount of violence in minutes increased to 0.98 minutes, still remaining below the UK average figure.
This research is reported in:


Focus group discussion with 16- to 18-year-olds:

This study incorporated a focus group discussion with 16- to 18-year-old students (N=9) during a one-hour session time-tabled for a History seminar. They were left alone to discuss their perceptions of TV’s effects upon St. Helena. With their approval the discussion was tape-recorded.

In their discussion, the students recognised that TV was bringing about changes in the lifestyles of people, mainly adults, on St. Helena. For the most part, these shifts were taking place in the ways
adults apportioned their time to the various recreational and other out-of-work activities. At least in the short term, according to the students, adults appeared to be withdrawing into their homes to view TV. In their opinion the 'losers' in this displacement exercise often were the socialising activities that took place at community centres, and public houses. There was a recognition, too, of the educational benefits of viewing. There was evidence, also, of adults learning from their viewing and putting that learning into practice. So the recent protest marches on the island were seen as a direct manifestation of imitational learning. They were mindful, as well, of the potential dangers linked to viewing aggression, but life in St. Helena made it difficult for this to happen on the island. Perhaps, they surmised, it was the remoteness of the island together with the extended family and neighbourhood supports operating in a largely caring community which helped construct a bulwark against untoward effects arising from the viewing of television.

Although this discussion was relatively brief and unstructured, interesting and potentially important explanations were put forward to account for the 'largely unchanged' nature of children's behaviour across the availability of TV. The students cited extended family and community social controls as preventing untoward effects arising
from TV viewing. Social scientists have noted similar 'controls' at work in small, and mainly rural, communities in the UK, and elsewhere. Valentine (1997), for example, makes the point that in communities where most people are known to most others, feelings of being watched over are commonplace because of the 'eyes on the street' (p.144) which keep youngsters and others under surveillance.

This research is reported in:


Exposure to TV violence and social behaviour:

47 children completed TV-viewing diaries for 3 days. Their behaviour was rated by teachers in pre-TV phase using the Pre-School Behaviour Checklist (PBCL: see page ) and on post-TV phase with the Rutter Behaviour Questionnaire (RBQ). The RBQ comprises sub-scales for neurotic and antisocial behaviour scores as well as a total score. Viewing data were merged with content
analysis data for programmes listed in TV-viewing diaries, showing amounts of violence viewed by individual children. The mean age of the 23 boys and 24 girls was 3.5 years at pre-TV phase and 7+ years in 1998, some 3 years after the availability of broadcast TV.

Over half the children recorded any TV-viewing. On average they witnessed 95 violent acts, viewing 7.28 minutes of violence across the three days. Only viewing of cartoons, was significantly correlated with (RBQ) behaviour measures. This relationship was significant for only girls. Total number of violent acts watched significantly correlated with (post-TV) total RBQ score and with RBQ anti-social sub-scale score. Among boys, only male-perpetrated violent acts viewed, correlated significantly with (pre-TV) PBCL scores. Among girls, total number of violent acts seen was correlated with RBQ anti-social behaviour scores. Other findings indicated that cartoon violence rather than other TV violence was linked to antisocial behaviour tendencies among children. Controlling for the effects of exposure to televised violent acts, film viewing was negatively correlated with antisocial behaviour tendencies. Taking out the effects of viewing televised violence, however, children who exhibited stronger antisocial behaviour
tendencies prior to the introduction of broadcast TV were the most strongly attracted to cartoon entertainment.

This research is reported in:


Children's viewing times:

A television diary was used to collect data on the children's television viewing on three days in April 1998. 66 pupils (34 boys and 32 girls) completed the diaries, a response rate of around 88%. 52% of respondents recorded watching TV on at least one of the diary-keeping days. The mean viewing time was 3.47 hours for the three survey days. Using these data to make estimates of their mean weekly viewing, yielded a mean of 8 hours and 2 minutes. 84 hours of TV programming broadcast to the island on the survey days were categorised into genres. By far the most popular programme genre
was cartoons, which the children watched on average for nearly two hours over the three days. The second favourite genre, 'films', was watched for 45 minutes on average over the 3 days. No other programme genres attracted large numbers of viewers.

The highest registered viewing time for girls was 10 hours and 50 minutes over the three days and for boys, 7 hours and 15 minutes. Comparing the mean viewing times of boys and girls showed no significant differences. The most popular time for viewing was immediately after school at 3:00 p.m. until 6:00 p.m. when cartoons were broadcast. Early morning viewing (6:00 - 9:00 a.m.) on the Tuesday and Thursday, as well as the Sunday morning (9:00 a.m. to mid-day) was also popular. 26% of viewers reported watching an adult orientated film broadcast at 7:00 p.m. on Sunday, whilst none reported watching a film made for a teenage audience which was broadcast (somewhat paradoxically), at 11:30 p.m.

The above research is reported in:

CONCLUSIONS

Displacement effects: With the availability of broadcast TV most children became enthusiastic - though not intemperate - viewers. Viewing time appeared to be most displaced from activities such as 'unorganised play', 'sleeping', 'eating' and 'walking'.

Content effects: Findings, so far, challenge simplistic notions that viewing TV encourages anti-social behaviour. Discussions with older students suggested family and community factors which seem more persuasive in shaping behaviour than mere exposure to TV.

Future research: If perceptions of the above kind are substantiated by further empirical work (currently in preparation) the possibility emerges that potentially adverse outcomes of TV viewing can be restricted by equitable social controls operating within family and community structures.
SUMMARY OF MAIN FINDINGS

- No significant differences were found between teachers’ ratings of nursery class children’s anti-social behaviour prior to, and four years following the availability of broadcast television.

- Significant differences were found between teachers’ ratings on more general aspects of nursery class boys’ behaviour prior to, and four years following the availability of broadcast television. Compared to boys’ pre-TV ratings, in the post-TV phase teachers rated boys as having significantly poorer concentration, higher activity levels, as well as being both more fearful and more inclined to whine.

- Only one significant change in rates of anti-social and pro-social behaviour was noted among 4- to 8-year-olds’ free-play behaviour in playgrounds prior to and four/five years following the availability of broadcast television. In the post-TV phase, children engaged in significantly fewer hand-holding acts.

- Individual studies of 8-year-olds’ behaviour prior to (when aged 4 years) and over three years following broadcast TV’s availability, and their viewing records (with violence-viewing loadings
superimposed) revealed no firm evidence that exposure to TV violence was linked to increased antisocial behaviour.

9-to-12-year-olds' leisure-time behaviour at various stages before and since the introduction of broadcast television showed that watching television quickly became the most frequent and popular of leisure activities seeming to displace watching video and various unorganised activities. However, more recently, the popularity of television has declined, and some unorganised activities, but not watching video, have been restored to their original levels.

PUBLICATIONS
Over the period of the award research results have been disseminated in:

- over 50 radio broadcasts
- 9 TV documentary and news programmes
- broadsheet and tabloid newspapers (local, national and international) via press releases and interviews, as well as in articles in quality magazines
- 10 articles in academic and professional journals (4 others in prep.)
END OF AWARD REPORT:

- 8 conference papers (1 other in prep.)
- in a book publication dedicated to the research project, and
- a chapter in a book

KEY REFERENCES


