PART II CRT TECHNOLOGY AT THE MEDIUM-TERM LEVEL OF DIRECTIVE CORRELATION

Here we present five case studies of various data from differing perspectives. Each in some way however, provides one or more insights into the themes and dynamics which emerge at this level of analysis. Chapters six to ten then pick up these indications and examine them more thoroughly within the context of each logical area of evidence.

Of the two institutional focii of study at this level, education has some psychological priority over marketing and is dealt with first. There is an almost complete separation of data concerning the learning of children and adults and this therefore becomes the natural sequence of validation. Chapter 8 justaposes a parallel analysis of material demonstrating the unique success of television as a marketing tool which exploits the process of recognition and, in the service of which success, the industry has learnt to bypass features which could stir traces of recall or remembering proper. Chapters 6-8 then become the scaffolding upon which we hang our arguments that 'prosocial' content has limited, if any, future.

We then attempt an overview, centering other evidence around the concepts of disadvantage at the personal level and dissociating at the cultural level, showing that there are indeed indications that a correspondence exists between the two, and also that jointly, they represent a spiralling dynamic away from adaptation as it has been conceived here.

The specific hypotheses derived in Part I are almost all touched upon in each of the data blocks and the conclusions are therefore to a large extent overdetermined. Because the phenomena at this level are writ so

large and clear, the repetition through chapter conclusions is more than obvious and we make no effort to tie these to specific hypotheses. Also emerging all too sharply through this part is the failure of the traditional paradigm to clarify the effects of this technology upon our children and cultures, and the reluctance of its accredited elite to confront this failure and their own. Case Study No. I begins at the beginning of the story.

CASE NO. I

THE SELLING OF EDUCATION TELEVISION

The date is 1956: the first wave of baby boomers is entering 4th grade, USSR has successfully launched Sputnik and educational television (ETV) is in its infancy. The first two of these 1956 features combined to form a context within which the infant ETV was accelerated into maturity and hailed as a wonder child.

> "Our Nation was rudely awakened a little over a year ago by a flying object which Russia called a sputnik but which, so far as implications for America were concerned, was a flying alarm clock. Let us hope that Russia does not have to launch the equivalent of a Sputnik in the use of television for educational purposes in order to bring the 'breakthrough' which American education so desperately needs if it is again to seize a position of world leadership in education, not only in science, mathematics, and the modern foreign languages but also in those humanities, social sciences, and cultural areas for which the world - and especially the underdeveloped nations - look to us for leadership".
> (Hearings, U.S. Congress, 1959, p71-2, emphasis is mine)

This evidence was given by the president of the National Association of University Broadcasters. He continued by extolling the effectiveness of ETV in realizing "the dream of our Founding Fathers for universal education...This effectiveness has been demonstrated at all levels of education, from the primary grades through adult education, and in virtually all subjects in which it has been responsibly tried...The crisis confronting education in this country regarding the appalling lack of facilities and teachers to cope with ever-mounting enrolments has been too well-documented to need repeating here....educational television can greatly assist with this critical problem." (as above p 72)

About Sputnik, its effect on the collective U.S. psyche, and the havoc wreaked by the baby boom (Jones, 1981) there is little doubt. There some doubt however, about the validity of the claims made for ETV. Let us begin the story in 1956, tracing the development of the evidence and the claims made about it.

1. Emerging Patterns

The first official documented enquiry into ETV appears to have taken place in 1956 in New York State when a group of distinguished experts gave evidence relating to expansion of ETV facilities in that State. Dr Franklin Dunham of the U.S. Office of Education mentioned eleven experiments of which only three, or possibly four, were complete and reported upon.

> "What do these experiments add up to at the present time? First, they seem to show that television as a direct teaching device is as good as the classroom but it serves incomparably more people. Second, that sight and sound impressions are more effective than sound alone. With the addition of print, both are better than they are when used alone. Third, television supplemented by regular meetings with students is superior to television alone. Fourth, that television is an excellent supervisory medium, an excellent teacher of teachers." (N.Y., 1956, p III-7)

The U.S. Army and Navy had completed studies showing "television has unquestioned value in their instructional programs" (as above, p 16) and these combined with the "preliminary findings" (p III-5) that "good teachers can and do project themselves successfully over the television medium" (p III-4) led Dr de Alton Partridge of New Jersey to conclude that "television can magnify the influence of good teachers, many, many times" (N.Y. p III-5). He noted however "that there is a publ relations job to be done even within our ranks" (as above). The

committee also mentions studies in five and "certain other cities" in N.Y. State which have partially evaluated ETV's effectiveness. "All report success" (p 23). On page 21 they had concluded that "enough experimentation has now been conducted to show that television can be used to multiply the effectiveness of outstanding teachers... (but) it is probably premature to make over-reaching claims." Dr George Wischner, psychologist, University of Pittsburg recognized "that very little research has actually been accomplished... (because) we have had to spend too much time reinvestigating the same primitive issue... 'can you teach by television?' One thing we can say, I think, is that television can teach" (N.Y. p III-14). The mood of the time is perhaps best expressed by Dr George Stoddard, chairman of the Board of Educational Television & Radio Centre: "In my opinion, we should not hold up a movement because we lack the data that characterize doctoral dissertations" (p III-22, emphasis is added).

Recommendations of the committee included:

1. The effectiveness of television as a teaching device and means of improving the educational process has been demonstrated. (N.Y. p 16).

4. Experimentation shows that television can be used effectively to help meet some of the critical problems of increasing student enrollments and teacher shortage." (p 20)

Without benefit of hard data or analysis, or at least it was not thought necessary to include in this report, the little that existed, the committee succumbed to the 'self-evident' facts. 1956 heralded the deterioration in the standards of academic research and debate in media studies which continues virtually unabated to this day. The following cases are evidence of this.

Following the N.Y. State study, the U.S. Congress began hearings on ETV which led to the establishment of the National Defence Education Act. Two volumes of these proceedings have been published, in 1958 and '59. By this time a large scale project was under way in Hagerstown, Maryland. After stressing the tremendous shortage of teachers in science and maths, the Hon Stuart Udall who had inspected the Hagerstown experiment continued

> "All available tests and evidence, they tell me... (shows) that the learning processes of the students ... is accelerated ... It opens up their (the teachers') eyes to the potential in the use of teaching methods and techniques that they hadn't known about. Because the master teacher who teaches just 1 class a day for 30 minutes -- let's say to all the 6 grades in mathematics -- he has an entire week to prepare 1 or 2 lessons, and he can use the very latest in visual methods, he can use the various aids and techniques which are not normally used..." The most difficult subjects to teach -- science, mathematics and languages -- can be taught with maximum effect." (Hearings, 1958, p 6, my emphasis).

Dr William Brish, Superintendent of Schools in Hagerstown gave evidence directly to the committee stressing the advantages of using television including the fact that "3.4 teachers will teach lessons from television studios that would otherwise require 33 teachers" (Hearings, 1958, p 87).

> "The results of research efforts in the project are, as yet incomplete because of the limited time we have worked with television instruction. It is not valid to advance claims on the basis of a few months' work. However, during the school year 1956-57, the results of standardized tests administered at the beginning and the end of the year were very encouraging. Growth seemed to be achieved by boys and girls in accordance with their learning potential." (Brish, as above p 88)

The Chairman queried Brish specifically about achievements and he replied "we have got to take it over a period of years ... but the results are encouraging, very much so" (p 93). Brish repeated his claims to the

further hearings of the House of Representatives (1959), again without providing data. Schramm tells us in 1962 (p 53) that the results had still not been released, and see below.

Richard B. Hull, Ohio State University spoke on behalf of the National Association of Educational Broadcasters (NAEB). He mentioned ETV's "great potential" (p 70) for adult education as well as solving the "crisis" (p 64) and tabled a letter which referred to "proven results of ventures in educational television by certain colleges and universities" (p 71). Arthur H. Compton of Washington University wrote

> "I look at educational television as a scientist and as an educator. I am impressed with the tremendous opportunity it offers to solve some of our educational problems by bringing great teaching to all the students of an area such as St. Louis instead of to the relatively few ... I hope that you will make the point forcefully that teaching by television is out of the experimental stage. We know that it works."
> (Hearings, 1958, p 135)

Dr Willard Brown, president of the Metropolitan Educational Television Association of N.Y. City said

> "I feel sure that this instrument -- I have spent my entire life in education -- and I am sure that this instrument is the greatest single new teaching instrument that has appeared on the scene since my boyhood. I am sure that there are some subjects that can be taught even better by television than in a classroom. I know from experience and from evidence that there are subject matters that can be taught as well. I know that this instrument has a peculiar power to reach the individual and to demand the concentration of the individual in a way that is rare in the classroom ... I defer to no one in my conviction that the master teacher ... can reach thousands instead of hundreds by the use of this instrument. But even more than that, I think this instrument, as a teaching device, has power which is unique."
> (as above, p 157)

Dr Alexander J. Stoddard, consultant to the Fund for the Advancement of Education summarized the results of research:

"Thus far it has been determined that --

1. Both large and small classes can be taught successfully at the college level either off or on campus, by direct teaching over television.

2. Teaching large and small instructional groups in the Armed Forces, in industry, in medicine, and in the political arena is being done extensively and effectively by television.

3. Students in small high schools are receiving satisfactory instruction by means of television in subjects where teachers are not available or where the quality of instruction otherwise would be low.

4. Television can be a very valuable and effective resource for regular instruction at the various school levels, not as a substitute for the teacher but as a powerful aid in the content and processes of teaching.

5. Television-studio teachers from within the profession can be found and trained to perform adequately the functions and responsibilities involved in the use of this new medium.

6. Wider and deeper curriculum content is possible, on a practical basis of cost in time and teaching service, through the use of television as a teaching resource.

7. Television is a powerful means of communication because it combines identical sensations of sight and sound, because of its intimacy for the learner, and because it is uninhibited by the limitations of the usual forms of communication."
(Hearings, as above, p 174)

It had therefore to be better than the often haphazard and unpredictable performance of an ordinary teacher in an ordinary classroom or a highly conscientious but boring teacher. We would expect therefore that ETV would produce superior learning to traditional classroom teaching in a majority of cases, say about at least 70 percent of the time. Allowing for the fact that there are some brilliant teachers and some failures in ETV production, we could reasonably expect that in any series of experiments comparing ETV with conventional teaching that the result would approximate

ETV better	70
ETV same	20
ETV worse	10
	100%

In order to achieve comparability throughout this body of data I will employ a simple formula of:

$$\frac{\text{ETV Better (+TV*)} - \text{ETV Worse (-TV)}}{\text{(+TV)} + \text{n.s.} + \text{(-TV)}}$$

* Following Schramm, 1962

to given an Index of Net Effectiveness of ETV. This gives a scale from 1.0 to -1.0. Net effectiveness of ETV based on the previous body of evidence would give us therefore $\frac{7-1}{10} = 0.60$, a clear indication of ETV's superior effectiveness, and one which would stand a chance of realizing the Founding Fathers' dream.

One team however presented hard data to the hearings. Table I.1 contains these findings for three courses over 'several comparisons'.

Table I.1 Comparison of TV and Standard Classes in Three Subjects (from Table 1, Hearings, 1958, p 195)

	TV Better N	No. Sig. Diff. N	Standard Better N
General Chemistry	0	12	0
General Psychology	0	10	2
Psychology of Marriage	0	3	0
	0	25	2

In twenty-seven cases ETV could not achieve an improvement in learning over ordinary, run-of-the-mill classes. The index of net effectiveness

0-2

27 gives us a value of -0.07. In spoken evidence, Dr. Carpenter (Director of Academic Research & Services, Pennsylvania State University) mentions a later figure of 0: 30: 2 which he describes as a "pretty firm story, not only from our research but from research in the military services, Miami University, and elsewhere, where comparisons have been made under controlled conditions" (Hearings, 1958, p 197). This then is the empirical basis for the many statements above. Not only does ETV not multiply the effectiveness of outstanding teachers; even with outstanding teachers and its other advantages it cannot beat the everyday teacher. "At a minimum, teaching by television does not measurably reduce the effectiveness of instructions" (Carpenter, p 188). Carpenter projects from this data "to the almost unlimited capabilities, largely as ye unimagined and underdeveloped, of television applied for educational purposes" (p 187). But taking advantage of this potential will require more resources and energy (p 188). During questioning he emphasized that on ETV you really need good teachers (p 198). Throughout his evidence, Dr Carpenter gives the impression that he implicitly knows something is terribly wrong, but he has also been convinced that "sound motion pictures and other film recordings can be used effectively for stimulating learning" (p 188). Therefore it follows that ETV can do likewise if only research is continued (p 199). But film and television are different media!

He attempts to justify the results with "theoretically, it is not to be expected that merely televising unmodified existing instruction will of itself improve instruction" (p 192) but he has already contradicted any

such notion by stating that "our television systems make it possible for our best available teachers to instruct very large numbers of students"; 5000 students in 19 television courses (p 188).

Let us be clear about what has happened here. Carpenter says that the finding that the relative effectiveness of conventional and televised instructions is "approximately equal" is "a fairly definitive finding" (p 187). The other expert witnesses were speaking from the same small body of data yet their testimonies are rosy. What was afoot was indeed a movement, but it was not one based on objective analysis of results. Perhaps this is being unfair because the data base was small and ETV was new and different. We shall therefore postpone further discussion until the 1962 results were in, but before moving to that evidence we must note two further points.

(a) Hearings were again held in 1959. There is no point in reproducing here all the key statements made. The following should suffice to demonstrate that they were of a similar ilk -- "There is already massive evidence to show that television can be used effectively to improve the quality of instruction and to make educational services more efficient" (Hearings, 1959, p 206) (emphasis added). Specifically we note that the awful results which confused Dr Carpenter are now amongst those quoted as showing "the great potential of ... educational television ... virtually all types of course material at all levels have been tried in nearly every case, tried successfully." (as above, p 66). Myths and legends were being created.

(b) Carpenter also presented data on student attitudes to ETV.

Table I.2 gives the results.

Table I.2 Student estimates of Probable Learning from and Interest in ETV as Compared to Conventional Instruction (from Tables 2 & 3, Hearings, 1958, p 195-6)

	Probable Learning Mean Score*			Interest: Mean Score		
Subject	4th Week	13th Wk	Final	4th Wk	13th Wk	Final
General Psych	2.6	2.5	2.6	3.0	2.6	2.6
Psych of Marriage	2.9	2.9	3.0	3.0	2.8	2.9
	8th Wk			8th Wk		
General Chemistry	2.8		2.7	2.8		2.7

*From Scale: Much more = 5, A little more = 4, About the same = 3, A little less = 2, Much less = 1.

We see clearly from Table I.2 that the students did not share th academics' enthusiasm for ETV. The highest mean score on both probable learning and interest reached "about the same". They were "mainly neutral or slightly negative" towards ETV (Hearings, 1958, p 189).

2. Not Significantly Different

It was obvious in the early data that for all the advantages that ETV was able to employ, the most remarkable feature of the research was the outstanding proportion of cases which showed 'no significant difference'. Despite Carpenter's evidence, this central feature was somehow overlooked until it was remarked upon by Kumata (1960(b)). By this time however, truly massive resources had been allocated and mobilized and Kumata's warning went unheeded, its implications neglected in the headlong rush into technological progress and keeping up with the Russians. It w

Carpenter himself "as an Air Force Reserve Officer" who made the "hesitant" statement:

> "May I suggest that it would be technically possible and feasible in terms of conditions that now exist, or may soon exist, for the Soviet Union to do the following:
>
> 1. Blanket one-third to one-half of its territory and that of satellite nations with educational television systems. 2. Reach two-thirds to three-fourths of the population of the region covered. 3. Employ as many channels as necessary for as many hours per day as needed, to accomplish their educational objectives. 4. Develop the system sketched during the next 3 to 5 years." (Hearings, 1958, p 199)

He later informed the Chairman that it may be struck from the record because "it might cause a good deal of excitement". The Chairman replied

> "No, I don't think it should be struck from the record. I think people ought to realize that, and I don't think it is a statement that can be taken lightly. I think it might be conservative. I am sure they are going to do this.
> Dr Carpenter. I am reasonably well convinced that they will. The time schedule here may be a little short.
> The Chairman. It is not exaggerated at all, because they can start from scratch without the problem of commercial television". (Hearings, p 199)

At the close of the McCarthy era the academic community in the U.S.A. appears to have devoted its not inconsiderable prestige and power to strictly national interests which may explain the tone of the statements and their distance from the data. 'erhaps though, it may have been more in the national interest to examine their assumptions in the light of data.

However, by 1962 the intensity of the feelings generated during the cold war had abated and there actually was a substantial body of experimental data against which to measure previous hypotheses about ETV's superiority over the normal classroom. Schramm's paper "What we know about learning from Instructional Television" became a classic in the field, not least

because he ducked the issue of testing these hypotheses and thus initiated what became known in the trade as the 'scandal non-significant differences'. Signs of the impact abound in the literature after that period. The NAEB called its final report on improving ETV "Towards a Significant Difference" (NAEB, 1968).

It was a scandal along two dimensions; firstly, research quality and secondly, because after the nature of the advocacy that had led to ETV, Schramm should have used "this massive testing" (p 52) to provide the definitive answer to the question 'Is ETV superior to the classroom teacher?'. As we saw above, a not unreasonable expectation based on the 'obvious advantages' of ETV would give it a net effectiveness of 0.60. Schramm's basic data (from p 54) is reproduced in Table I.3.

Table I.3 The Effectiveness of ETV

School Level		Math	Sci.	Social Studies	Humanities History Lit,Arts	Language Skills	Health Safety	Total	
3-6th grades	+TV	14	8	12	0	14	2	50	+TV
	n.s.	21	14	11	0	36	4	86	n.s.
	-TV	3	1	1	0	10	1	16	-TV
7-9th grades	+TV	4	9	0	2	0	3	18	+TV
	n.s.	11	8	1	7	0	1	28	n.s.
	-TV	2	3	0	0	0	0	5	-TV
10-12th grades	+TV	0	3	3	4	1	1	12	+TV
	n.s.	10	7	17	17	6	0	57	n.s.
	-TV	5	3	0	9	4	0	21	-TV
College	+TV	0	1	1	0	0	1	3	+TV
	n.s.	4	26	24	11	12	7	84	n.s.
	-TV	0	1	4	3	1	4	13	-TV
Total	+TV	18	21	16	6	15	7	83	+TV
	n.s.	46	55	53	35	54	12	255	n.s.
	-TV	10	8	5	12	15	5	55	-TV
								Total = 393	

This yields an overall picture of

	N	%
ETV better	83	21
ETV same	255	65
ETV worse	55	14
	393	100

and a consequent net effectiveness of 0.07.

Our expectation of a 70% superiority of ETC (7 : 2 : 1) is significantly different from the observed numbers ($x^2 = 13.66$, d.f. = 2, $p < .01$). This enlarged body of evidence only confirms the confusion of Dr Carpenter - the obvious advantages were not showing up in the results.

If ETV is not clearly superior to ordinary classroom teaching on this test, is it perhaps because so many elements are held in common that we should expect a large proportion of non significant differences? Accepting then the 65 percent non significance figure, is ETV perhaps superior in that the +TV to -TV ratio is different from chance level?

Observed	83	55	$x^2 = 2.86$ n.s.
Chance	69	69	

It isn't. For all the master teachers, props, editing, enhanced attention and additional cost, ETV added nothing.

When Schramm says "There can no longer be any doubt that students learn efficiently from instructional television" (1962, p 52) his data says

that 'a random selection of teachers, coping with overloaded classes in ill-equipped rooms and laboratories achieve the same learning as ETV' All the cost and effort had been wasted. Worse than this -- logic dictates that had even a proportion of the resources that were dedicated to ETV been directed instead into easing the burden of the face-to-face classroom teacher, there would have been a significant return on the capital expended.

Within the overall data there are differences between subjects and grades. Using the index of net effectiveness we derive Table I.4.

Table I.4 Net Effectiveness of ETV by Grade and Subject

	Maths & Science	Social Studies	Others	Total
Primary (grades 3-6)	0.30	0.46	0.07	0.22
Secondary (grades 7-12*)	0.05	0.14	-0.04	0.03
College	0.00	-0.10	-0.18	-0.10
	0.13	0.15	-0.02	0.07

*This combination is more the Australian pattern than Schramm's.

Table I.4 shows overall a pattern of diminishing returns in every subject group with grade. Maths, science and social studies appear to be more effectively conveyed than other subjects, particularly at the younger levels. Schramm says "Mathematics and science, for example, have been outstandingly successful, and so have social studies" (p 54). Using the same very conservative chance level we see

Table I.5 Effectiveness of ETV for Maths, Science & Social Studies

	Maths, Science and Social Studies		Chance		
	N	%	N	%	
+TV	55	23.7	69	17.5	
n.s.	154	66.4	255	65.0	$x^2 = 8.62$, d.f. = 2
-TV	23	9.9	69	17.5	$p < .02$

from Table I.5 that ETV is slightly more effective in teaching this group of subjects than would be expected by chance. It is only when we take maths, science and social studies at grade 3-6 do we find an 'outstandingly successful' result for ETV ($x^2 = 23.76$, d.f. = 2, $p < .001$). Schramm also states that "history, humanities and literature have been less successful. Language skills and health and safety have been in the middle" (p 54). These latter subjects (22:66:20) cannot achieve anything superior to our chance level ($x^2 = 0.6$, d.f. = 2, n.s.).

"It is clear that televised instruction has been used with greater success in the grades than in high school or college." This is

Table I.6 Effectiveness of ETV by Level

	+TV		n.s.d.		-TV		
	N	%	N	%	N	%	
Chance	69	17.5	255	65	69	17.5	
Primary	50	32.9	86	56.6	16	10.5	(x^2=16.49, df=2, $p < .001$)
High School	30	21.3	85	60.3	26	18.4	(x^2=1.15, df=2, n.s.)
College	3	3.0	84	84.0	13	13.0	(x^2=16.79, df=2, $p < .001$)

perfectly true as we can judge from Table I.6 but what Schramm does not tell us is that while ETV is superior for primary grades and no different for secondary, it is positively detrimental to learning at the college or university level.

It is not difficult to explain this pattern of results although Schramm gives no indication of the various ways in which the achievement results

were measured. As children progress through the education system so the material taught becomes more abstractly conceptualized. Obviously fr this data we must conclude that television is not the medium to most effectively convey abstract concepts; familiarity is of little benefit when abstract reasoning or 'knowledge about' is required. We would suspect that most tests conducted at the secondary or tertiary levels would have been based on recall rather than recognition, but not all were. Hartmann (1960) tells us for example that to measure achievement in physics via ETV, he used a short quiz, multiple choice format.

In many cases the testing procedure is not mentioned or is so vague that it is impossible to judge whether recall or recognition is employed. But when the distinction is made, the differences are consistent. In a study reported by De Vera both recognition and recall were used and there was no significant difference overall between the lecture and TV grou When the students were sorted into ability groups they found that "among the lower students, those in the TV group scored significantly better than the control group, <u>on the recognition part of the test only</u>" (DeVera, 1967, p 101, my emphasis). For this reason it is important to read critically, studies which report improvements in achievement with ETV, particularly of disadvantaged or low achieving samples. The results of cases which do not report whether recall or recognition was used must be suspect. Similarly, it is important to know over what retention period the measurements were taken. Barrow & Bruce (1960) who used a recall test found that when the children were tested immediately after the programmes, TV was superior to radio. But after six weeks no differences could be found. Given these factors the results for high school and university levels should perhaps have been better for ETV t they were.

As we see with 'Sesame Street' the special purpose tests usually employed with younger children are of the recognition type and therefore excellent at recording the 'knowledge of' x acquired by television viewing. Some of these are almost ridiculously simple. For example, Schramm et al (1961) report on a special vocabulary test "made up of five words (the children) might be particularly likely to encounter on television". (p 92) They then used this test to show that "first grade children in a town with television will have larger vocabularies than corresponding children in a town without television" (p 94).

On these grounds alone we would expect the earlier grades to show a more effective achievement with ETV. Perhaps the most surprising finding is the lack of effectiveness of ETV for language skills in grades 3-6, significantly different from maths, science and social studies ($x^2 = 7.11$, d.f. = 2, $p < .05$). But language is that area in which the children bring most from home. For middle class children there is probably less to be gained and for working class children the gap, as Sprigle (1971) pointed out, may simply be too large for the programmes even to be understood. For children with relatively severe language deficits teachers often provide additional class time and attention.

It may also appear surprising that ETV is as effective for primary maths as it is for science and social studies which depend heavily on familiarization at this age. But maths in the primary grades is predominantly repetitive (certainly before 1962) and conditioned.

Schramm also presents some data on attitudes of students and teachers. The former he summarizes as "elementary school children are enthusiastic over television classes, high school students are much less so, and

college students are equivocal or even in some cases unfavourable" (p 56). Teachers' attitudes using the same net effectiveness index where applicable, range from an elementary school level of approval of 0.35 (p 59) to 0.24 (p 60) to Penn State teachers who rated ETV as -0.44 in 1956 and -0.16 in 1957 (p 60). "The real center of teacher resistance to instructional television is in the colleges" (p 59) and with, as we have seen, good reason.

Schramm devotes the last pages of this article to exploring the advantages and disadvantages of television as teacher and concludes that the advantages are not small. "They help to explain why television has not done so badly in the classroom as many observers expected it would" (p 67). Casual observers perhaps, but at no point does he confront the fact that it was the academic community who sold ETV as an improvement over classroom teaching. This conclusion then is simply another way of avoiding the unpalatable truth -- that ETV for all its shine was a rust bucket.

3. The Pattern is Set

Schramm's 1962 article was unfortunate, not only because of what it did and did not say, but also in that it appeared to set firmly a standard for television research. The amassing of that data presented an opportunity to admit that early forecasts of ETV's power had been overly optimistic and to re-present the estimate.

Yet another opportunity presented itself in 1967 when Chu & Schramm again reviewed the available literature. By this time there were 421 comparisons between instructional television and conventional teach (Table I.7).

Table I.7 Net effectiveness of ETV
(from Chu & Schramm, 1967, p 7, Table 1)

Level	Index of Net Effectiveness
Elementary	0.09
Secondary	0.07
College	-0.03
Sub-Total	0.02
Adults*	0.15
Total	0.03

* This category was not included in the 1962 figures and we are told very little about it or how it was measured in the 1967 paper. In the main these figures appear to have been drawn from McCombs, 1967.

As the data base increased, the index of net effectiveness dropped from 0.07 to 0.03. This does not constitute a significant difference but the decline at the elementary level was dramatic, 0.22 to 0.09 (x^2 = 11.14, d.f. = 2, $p < .01$). Even the 'promising' findings for the primary grades could not be sustained. The presentation of data by subject in 1967 does not permit a comparable analysis. However, despite these losses for ETV over time the opening sentence is again "There can no longer be any real doubt that children and adults learn a great amount from instructional television" (p 1). This time they do mention the logical difficulty posed by the non significance factor.

> "Here we have hundreds of comparisons, usually involving on the one hand the best a system can put together in teachers, visual resources, and careful preparation, all presented on the television screen, and on the other hand, often ordinary classroom practice, ordinary teachers, and ordinary teaching aids. And yet the predominant finding is of no significant difference. It can be argued that if this is the case, why introduce instructional television?" (p 6)

And then they answer this question with the following:

> "But this is precisely the point: Instructional television does make it possible to share teaching more widely. It can share the best teaching as well as ordinary teaching. It does make it possible to give teachers more time to prepare, and make more resources for teaching. If new ventures are to be undertaken in education, if courses or materials not now available in existing classroom can be offered there by television or if television can be used to extend the benefits of education to children or adults not presently

> served by existing schools -- then it would appear that television can be used for such purposes with considerable confidence." (p 6)

Such a failure of logic writ so clear could well be interpreted as a sign of having one's back to the wall. This reaction was not confined to Schramm et al:

> "Many administrators and researchers have expressed disappointment at the frequency with which nonsignificant differences in learning have resulted from comparisons of direct and televised instruction and they seem to regard this finding as a negative result.
>
> In the section on possible lines for future research given below, some of the reasons why nonsignificant differences seem to typify the results of this kind of research will be discussed. Although a finding of no significant difference does not prove that no differences exist, there is a practical value in such results in that consistent findings of nonsignificant differences in learning from different instructional methods give educational administrators some confidence that several alternative methods of instruction are available for use, and allow them to choose which one should be used in a specific situation on the basis of considerations other than relative instructional merits." (Greenhill, 1967, p 4)

A pattern had been set, and the uncritical acceptance with which the textual conclusions were met by other researchers in the field appears to have led to a more general inability to analyze and accept the results of their own studies. A mutually collusive type of reporting is noticeable whereby Chu & Schramm (1967) discuss the combination of television and correspondence study in Japan as a "powerful learning tool" (p 8). De Vera (1967) who overviewed the Japanese experience from the original sources is less impressed. He notes one particular Japanese study which found that the reading ability of children in a TV group was higher than that of a control group before the family bought a TV set, but dropped to the control level after having TV in the house. Achievement in science and social studies was unaffected. The researcher concluded "while the study time was shortened through televiewing, viewing of TV programs is

helping the children in one way or another in Science" (DeVera, 1967, p 97). De Vera suggests the result "should, perhaps be worded in a negative way" (p 98).

In 1967, after 10 years of experimentation and evaluation on a massive scale, the results of the Hagerstown ETV project were released by Wade, 1967, who was incidentally a member of the Schramm team. We would expect from the scale of the experiment and its duration that a vast body of detailed data would have been provided, certainly sufficient to answer many of the outstanding questions about ETV over the short and long term. We are given instead two small isolated pieces of hard data, one concerning the improvement in arithmetic for grades 3-6 in rural schools over the first three years of television; the other, an 'achievement growth' score in grade 6 science for conventionally and television taught classes. In the first of these tables we are not told for example to what year the norms apply or changes in the national norms over the same period. In the second, we are given no information as to the derivation of the 'achievement growth' scores in science or to what years or years they apply. If we had been given sufficient information to make these tables interpretable, I am sure the figures would be impressive. However, where is the rest of the "considerable amount of information (that) has been gathered?" (p 70). Nine other brief points are made about learning. No attempt is made to distinguish between significant and non-significant differences; statements are imprecise with no mention of measures of baselines. For example:

> "increased to a point where achievement was comparable"
> "very small gains in reading"
> "very slight overall gains in problem solving"
> "declined somewhat"
> "small gains were recorded"
> "two years higher, after several years of television, than before" (added emphasis)
> "significant gains"

"consistent, though not spectacular, gains"
"second higher than" (all from p 71-2)

Subjects and grades included for discussion in these points are obviously only a scattering of subjects taught to all grades throughout the county. There is simply no attempt at a systematic presentation of findings. Ten years implementation and research have become less than two pages of patchy, uninformative text.

Given the history of ETV research one does not have to be paranoid to suspect that reading between the lines of this presentation may yield a more accurate perception of the overall results from Hagerstown. A conservative reading would conclude that Hagerstown joined the mounting proportion of non-significant differences. There are a couple of clues in the above phrases that suggest, should one wish to be more radical, that Hagerstown was a costly failure and that the results presented here are the best that can be salvaged. Some support for this radical appraisal is supplied by the fact that when "the real test for television came in 1961...(and) the cost of television now had to be absorbed by the Washington county school budget" (rather than the Ford Foundation) the justification for continuation was provided not by citing the learning gains achieved by ETV, but by an attitude questionnaire devised at the time. It is difficult to believe that the county commissioners and the parents they represent would have been more swayed by teachers' attitudes than by hard evidence of accelerated achievement with ETV, had this been available.

Time after time we see dreadful results presented as successes or at least cautious successes. "Thus the objective evidence is that Colombian

television instruction has never reduced learning and in a large proportion of the cases it has produced significantly increased learning - for students and teachers alike" (Lyle & Torfs, 1967, p 63). This sample comes from the joint UNESCO, International Institute for Educational Planners' publication of 1967. While many of the cases from developing countries were at an early stage there was an almost totally blind acceptance that miracles would be wrought.

The 1962 review pointed up the poverty stricken nature of the work and thinking done following enactment of the title VII of the National Defence Education Act of 1958. "This proliferation of research did little to improve the quality of research being done at that time, however". (Beisenherz, 1972, p 2) "The waste in time, manpower, and money is frightful. The number of degrees, promotions, budgets, and kudos that have been awarded is frightening". (Kittross, 1969, p 210) In analyzing the debacle Kittross found the field deficient in both basic skills and philosophy of science. It had been an era of "galloping empiricism which is our present occupational disease" (as above, p 213). In contrast to Schramm, Greenhill and the many others who attempted to brave it out during this period, Kittross quotes the acting director of the Communications Research Centre at Michigan State University:

> "And what about those poor guys sitting up on top of Title VII? They may well be wondering what went wrong, why a project which seemed to hold such great promise now looks like a straggly old dog.
>
> I wonder if others who read and do research in the areas of communication and education have come to this conclusion: Frequently, the best designed, most carefully thought out and conducted, the most useful research seems to be that done by one investigator, possibly with help from a graduate student, on a budget of $500 to $1000. There seems to be some things about the research team and the $50,000 and $500,000 budget that stifle common research sense.

> "I don't think that statistics and design are the chief problems by any means. The problems are really much broader, and are all mixed up with scientific and human values...
>
> "I have taken this opportunity to raise some serious questions about the philosophy and direction of our research. I have said that we seem to be wasting much fine research talent on trivial matters. We frequently use high prestige methods where they are not appropriate to our level of knowledge or theory. We control unimportant factors and leave important ones uncontrolled and undefined. We have learned statistics (sometimes), but have not learned to think and behave as scientists. We become so encumbered by elaborate manipulations and by unwieldy organization of research that we find little time to ask where we are going and why." (Kittross, 1969, p 216)

Kittross makes no bones about his feelings about the results. "To our initial surprise and later disappointment we found over and over again that there were "no significant differences" (p 218). His reaction was typical of many -

> "In view of the significant differences favoring the face-to-face group in the previous experiment, it was decided to rerun the experiment using the same materials and instructor... it was hypothesized that the TV group would remember the principles involved better than the face-to-face group on the basis that there were less distracting, irrelevant cues for the TV group" (Kumata, 1960(a)).

Kumata simply couldn't believe his first results but his second were the same.

Kittross concluded that it was the quality of research that was at fault rather than the medium -- "it seems that we may have muffed it...we didn't even ask all the questions, much less find the answers". (Kittross, 1969, p 234)

The superiority of ETV to the ordinary classroom teacher always was mythology born of a combination of national fear and opportunism. That

it should have been allowed to develop virtually unchecked with speculation taking the place of conceptual analysis is an indictment of all the academics who presided through this expansive period and whose influence to this day is felt in territories far beyond their own. Increasingly, it appeared to become more difficult for the scientific community to accept that what they had been led to believe had little basis in fact, or worse, as we shall now see.

CASE NO. II

BOLD EXPERIMENT: UTTER & COMPLETE FAILURE*

As we have seen in the case of the non-significant differences there was some reason to doubt the wide spread belief about television's power to educate, as early as 1962. Despite these results Schramm et al write in 1981 that "in 1964 educational television looked like an idea whose time had come" (p 1). For this reason alone they are correct in describing the experiment in American Samoa as "one of the boldest innovations undertaken in education" (p 40). The experiment entailed no less than the entire upgrading of the education system in American Samoa with television as the primary vehicle of change: "it was intended to carry the main load of instruction, rather than to supplement it" (p 2), a large scale demonstration of the value of ETV as teacher.

1. The Bold Experiment

There is no doubt from the political point of view that Samoa was an excellent field site. The system contained only six-and-a-half thousand children and four hundred teachers spread over 76 square miles. U.S. guilt about its responsibility in Samoa (p 3) and the fact that the school system was a shambles -- not a single teacher in the elementary schools had a mainland teaching certificate, the few with high school diplomas scored at about fifth-grade level on achievement tests, (p 16) curricular and books were outdated and inappropriate (p 19), method of instruction was mainly rote learning with errors passed from generation

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* 'Bold Experiment' is the title of Schramm et al, 1981; 'Utter & Complete Failure' was how it was described by Haydon, the incoming Governor of American Samoa, in 1970. (Schramm et al, 1981, p 80). A review in The Economist shortly after the book's release echoed Haydon's sentiments.

to generation (p 21) -- combined with the seductive promise of TV to create a crash programme for immediate improvement (p 25) where cost was no object (p 40-43). The new Director of Education in 1964 accused his critics of ludditism and stated "Whatever we are doing now cannot help but be better than what we are replacing" (p 75). Other elements of the renewal included universal education and new 'handsome' consolidated schools designed and built for the new television teacher (p 3-4). Naturally the equipment was top quality and expert ETV teachers, producers, engineers and principals were recruited from mainland USA. This was to be a demonstration of ETV in educational reform on a grand scale.

Perhaps this alone and the optimism it generated are sufficient to explain the haste with which the plan took effect, and the incomprehensible decision not to take baseline measurements of achievement or allow an evaluation (without benchmarks) for 12 years. (p 5 & 61) Hasty it certainly was. "Within a matter of months the Samoans had an educational system organized around a medium that was unknown to them as late as July 1964. Two years later, four of every five school age children were spending one-fourth to one-third of their class time looking at a television picture" (p 4). Of all the factors that contributed to this dreadful experience Schramm et al suggest "everyone was simply in too much of a hurry" (p 193). But if television had been able to deliver on its promises speed of introduction could only have been beneficial.

While the heady excitement and optimism of the grand plan may explain the haste of introduction, it cannot overcome the illogicallity inherent in the statement that because a full 12-year cycle was required before

evaluation, no baseline data need be gathered (p 65). The National Association of Educational Broadcasters (NAEB) chosen to conduct the feasibility study and whose recommendations were accepted, would have been no strangers to experimental design. Schramm et al excuse this 'oversight': "There was no attempt, in those pre-'Sesame Street' years, to introduce formative research." (p 196) This is unacceptable; we are discussing 1964, not the middle ages. Besides, in 1962 Schramm had surveyed 393 experiments with 'adequate design.' Whatever the reasoning however, this failure contributes substantially to the difficulty of evaluating both the experiment itself and the evaluation conducted by Schramm et al. As we see below, there is reason to believe that the damage done by the experiment (p 196) has been underplayed in this formal evaluation. Schramm et al appear again to be markedly reluctant to confront the data available to them.

(i) Expectations and Chronology

The Samoan people were led to expect that the new system would train Samoan teachers, ensure "quality instruction by top flight stateside teachers for every child in every village" and establish "a low-cost permanent educational facility, complete with a large library of tapes and other visual material." p 32) They were promised a new curriculum relevant to Samoa and its culture (p 33). Literacy was to be developed in Samoan with English taught as a second language. Lesson guides, worksheets, tests and materials should accompany the TV programmes (p 35). Above all they were promised desirable standards (p 63) "at the level of an average, preferrably an outstanding, mainland school system" (p 127) and an educational policy (p 37) to guarantee the continuity they had never had but desired (p 21). In addition there were reassurances that it would not spark a demand for commercial, entertainment TV (p 61).

It is easy to understand that the Samoan chiefs strongly wanted to give their children a better education although they expressed a reluctance to have them 'Americanized' (p 195). What is more difficult to understand is the sheer hubris of the U.S. experts and advisors who expounded such a set of expectations in the knowledge that television had failed to show any improvement in achievement in 79% of previous experiments which were, into the bargain, smaller and easy to control.

The progress of the experiment is documented in Table II.1 where I have attempted to pull together the events and dates scattered throughout the book. Key dates for interpreting the data and Schramm et al's evaluation are the 1964 introduction of ETV, the 1966 saturation point, combined effect of opposition and dismantling in 1970 and phased out point for high schools in 1972.

At the beginning and height of the experiment there was a common pattern to the school day: "a few minutes to prepare the class for the upcoming programs; the telecast itself, which varied in length from 8 to 25 minutes; and a follow-up period for explanation, review, drill or other classroom activity" (p 48-51). 'Teachers' became 'follow-up teachers'. (p 70) "All television lesson plans were prepared in considerable detail, including not only directions for the studio teacher, but also instructions for the Samoan Classroom teacher, who was told precisely what to do to prepare for the lesson, what to do during the lesson, and what to do (and what not to do) after the lesson . . . all instruction revolved around the broadcast curriculum" (p 55). Intended to induce

Table II.1

PROGRESS OF THE BOLD EXPERIMENT

EVENT	DATE	YEAR
Recommendations by NAEB		1962
Inception of TV (2 channels)	Oct. 5th	1964
Third Channel transmits	Dec. 2nd	1964
Change to Samoan as second language		1964-5
4 Schools receiving (opposition begins to be heard)	End	1964
Extended to high schools		1965
13 Schools receiving	End	1965
23 Schools receiving	End	1966
Saturation: 1/3 time watching ETV		
24/26 Schools receiving	End	1967
Wolf report questions effectiveness of television as teaching tool		1969
Opposition by teachers and students is serious problem, particularly in high schools		
Assistant Director of Education recommends reduction in ETV and immediate addition of 40 new Stateside teachers		
Begin to dismantle ETV, 24 new secondary teacher hired	Fall	1970
Science on TV dropped from 7th and 8th grade		1972
Language Arts on TV dropped		
Social studies and science shown not more than once a week for first and second graders		1973
Further formal reductions made		1974
No TV production personnel under supervision of Dept. of Education (programs shown are reruns)	After	1975

Table II.2

PROGRESS BY AVERAGE VIEWING HOURS

Grades	End 1965	End 1972*	End 1975*
1-4	7.55	6.03	5.23
5-8	6.58	4.53	3.18
High	8.20	1.25	0.00

*These are maximum number of program hours, not viewing hours as teachers were then free not to use it. Given the opposition to TV by teachers it is likely that viewing average was very low.

conceptual learning, reasoning and creativity, teachers were discouraged from being flexible or innovative (p 56). But as a demonstration of ETV's power as a teacher at a time when the average expenditure per student had been increased sixfold and more spent on physical plant and equipping of schools than had been spent in the entire history of Samoan public education to that time (p 43), it should have been superb. If television is a great teacher the results should have been excellent despite the occasional difficulty with delays in arrival of written material. These after all, were only back-ups to the information received via TV. Nothing was permitted to disturb the ETV impact: "school libraries were disapproved because they might introduce students to a vocabulary not consistent with the Pittman/Tate plan of development". (p 72) The scene was set for an "historic first" with "wide-ranging significance" (p vii) for affluent and developing countries alike.

2. Results: The Failure

The following tables accumulate and re-analyse the data scattered throughout The Bold Experiment. At the very least, we may note that Schramm et al do not make it particularly easy for the readers to reach their own informed judgement of the experiment's success.

(i) Overall. Although no benchmarks were taken against which success could be measured, Schramm et al fortunately unearthed a study of Samoan school achievement conducted in 1935. Little appears to have changed in the school system between 1935 and 1964 apart from jeneralized neglect, so the 1935 data for grades 4-12 may serve as the missing comparison point. Table II.3 illustrates the success of ETV in bringing the Samoan children up to U.S. mainland standards. This was the stated aim and

Table II.3

Percentage Achievement of U.S. Norms at 3 Points in Time

Grades*	Age	1935** Before	1971** After	1972** Dismantling Underway	Net Gains 1935-1971	Net Gains 1971-1972	Net Gains 1935-1972
3	-	-	53	73	-	20	-
4	10.6	58	50	68	-8	18	10
5	11.6	61	58	56	-3	-2	-5
6	12.6	66	52	57	-14	5	-9
7	13.6	63	66	50	3	-16	-13
8	14.6	62	68	63	6	-5	1
9	15.6	58	64	60	6	-4	2
10	16.6	58	56	59	-2	3	1
11-12	17.6	52	58	56	6	-2	4
12	-	-	57	57	5	0	5
Mean		60	58	60	-2	2	0
N	532	532	5422	5706			

* From Table A.3 (p 202): Obviously if the first row is 4th grade the last cannot be 12th grade, unless as I have assumed the small numbers of children attending them would have forced an amalgamation of 11th and 12th grades. Result calculated as Educational Age: Chronological Age

** 1935 test was Stanford Achievement Test as was grades 3-6 in 1971 and 3-7 in 1972. Higher grades in these years were measured by the SRA test. Figures here are derived from the formula Grade Equivalent: Grade, given in Tables A.5, A.6, A.7, A.8; using only those tests applied to all grades.

therefore the appropriate measure is percent achievement over time. ETV would be judged successful if its use was associated with an increase of percent achievement over the life of the project. Schramm et al do not make such an analysis. In a footnote to p 123 they explain why in Tables 29 and 30 they change to growth scores instead of grade equivalents. "In a case like that of Samoa growth scores have the further advantage of not drawing attention to a comparison of grade equivalents between Samoa and the mainland when, because of cultural differences, this comparison may be misleading" (emphasis is mine). This is an extraordinary statement from a team whose job it was to measure ETV against its stated aim of achieving such comparability. Yet again, they do provide such a demonstration on a small scale in Table 32 but only for 1971-72 when the peak period of ETV was over.

Table II.3 tells us that in 1935 Samoan school achievement was roughly 60% of mainland U.S.A. After seven years of concentrated ETV, grades 3-12 were achieving 58% of U.S. norms. Despite everything, including the great television teacher, these children were now further disadvantaged than they were in the 'primitive' oral society teaching days of 1935. But by 1972 when the ETV system had been widely discredited and largely officially dismantled, at least in the high schools (there are no clear records of what was followed in the elementary schools but we must suspect from the clues given that teachers reverted to 'teaching') the average achievement figure finally climbed back to its woeful 1935 level. In other words, it took two years of reduction in ETV with commensurate increase in face-to-face teaching to reverse seven years destruction of standards incurred by monopolization of television as teacher. As the net gain columns show the result for individual grades is patchy, some continued to slip to 1972 but overall from 1935-1972 these were all

primary grades where ETV was still being heavily used. Television as teacher had failed, not only to increase the comparability of Samoan a mainland achievement but also to maintain what there was. Schramm et al's overall conclusion is as follows. "We know that students can learn from television. There need no longer be any doubt about that . . . the instructional effectiveness of television is not in question" (p 187). This discrepancy speaks for itself.

But perhaps we are being too harsh. Perhaps the neglect from 1935 to 1964 had resulted in a far lower baseline figure which seven years of ETV had managed to bring back to former standards? Tables II.4 and II.5 contain the little data on which to make a judgment

Table II.4 Percentage Achievement of U.S. Norms for Grade 9 in 1954 and 1964

Subject	1954	1964	Net Gain
Reading	50	54	4
Language Arts		63	
Spelling	79		
Social Science	58		
Science	52		
Arith Computation	89	74	-15
Maths Reasoning	74		
Mean	58	64	6

For grade 9 (first year high school) there was a rise in reading score and a drop in arithmatical computation between 1954 and 1964. The mean is also up by 1964 (Table II.4). While these figures are patchy they could not support an interpretation that there had been a substantial drop in achievement to 1964 when ETV began. Nor can the similarly patchy data in Table II.5. There was a small gain in reading between 1954 a

Table II.5

Percent Achievement of U.S. Norms in Reading Over Time

Grades	1954 (p111)	1964 (p110)	1967 Voc.	1967 Comp.	1967 Mean	1971	1972	Pre-TV '54-64	Net Gains 1st 3 yrs '64-67	Last 4 yrs '67-71	Dis-mantli '71-72
5-6			78	78	78	55*	58**			-23	3
7-8			63	64	64	60	53			- 4	-7
9	50	54	43	44	44	54	48	4	-10	10	-6
10			42	43	43	48	48			5	0
11			40	44	42	53	50			11	-3
12							48				
Mean					54	54	51			0	-3

* 8th Grade only (Table A.8)

** From mean of all language arts for Grades 5 & 6 (Tables A.5 & A.6)
Spelling should possibly be excluded but this would lower the percentage even further.

1964. We must therefore reject any idea that the ETV was restoring achievement to 1935 levels.

(ii) Particular Subjects

See table No. II.5 for "Percent Achievement of U.S. Norms in Reading Over Time."

Tables II.6 and II.7 show a similar picture to Table II.5. There were a few losses and gains which continued through the dismantling period. The first three years of ETV saw a drop in reading scores which recovered only to 1964 level by 1971. By 1972 it had dropped below the 1954 level when the system was a 'shambles'. There is no sense of the consistency in improvement that would be associated with a good teacher or a good school. From this picture Schramm et al conclude that "a realist expectation is that ETV, well used, will produce . . . a measured, steady, consistent improvement" (p 192). The only consistency appears in the fact that at no stage, with the possible exception of arithmetical computation, did the Samoan students even approximate an achievement comparable with U.S. mainland students. ETV did not deliver on its promises. Indeed if we consider that the normal expectation would be a steady improvement from year to year then it becomes obvious that the Samoans not only made no progress but went backwards during the ETV period. This can also be seen clearly in tables II.6 and II.7.

Table II.6 Percent Achievement of U.S. Norms in Word & Paragraph Meaning for Grades 3-6 (From Table 27, p 121)

Grade	Word Meaning		Paragraph Meaning		N	
	1971	1972	1971	1972	1971	1972
3	60	70	57	67	860	767
4	55	65	53	58	815	855
5	52	52	54	54	705	724
6	47	50	50	53	581	664

As the grades progress in Table II.6 so they progressively fall from parity with U.S. norms. Despite some minor gains from 1971-72, which is the beginning of the dismantling period, Grade 6 in 1972 was performing at a lower percentage of comparability than any younger grade. Schramm et al use this test to show "that some differentiation was indeed taking place, albeit very slowly" (p 121). What it does show clearly is slippage. Similarly we may reconsider Table II.5 concerning reading.

The same pattern of deteriorating comparison over grades is evident. ETV had failed to halt this pattern which was clearly present in 1935. Nor is it confined to reading or literacy.

Table II.7 Performance in Grades 3-6 on English and Samoan Language Vesions of a Maths test, 1971 (from Table A.10)

Grades	Average Percent of Items Correct	
	English	Samoan
3-4	69	78
5-6	65.5	65

There is an actual decline in scores in mathematics from grades 3-4 and 5-6.

Schramm et al also provide some data on progress made in oral English. It is clear from the text that this data presented the researchers at the

time with some degree of difficulty. Results of a test administered in 1964 and 1968 are used by Schramm et al although "we do not know how the schools were sampled or exactly what the test consisted of. Nevertheless, if it is justifiable to speak of significance in regard to these tests, the 1968 scores were significantly higher than the 1964 scores." (p 113) No significance figures are given. Table II.8 shows the actual gains made in these schools. The result for Lauli'i school

Table II.8 Gains Made in Oral English in Grade 7 over Four Years (from Table 20, p 114)

School	Mean Scores 1964	1968	% Gain in Mean Score
Ava (42)	12.1	14.4	19.0
Lauli'i (26)	13.2	18.8	42.4
Leone (62)	14.9	12.6	-15.4
Pago Pago (64)	12.7	15.0	18.1

may be impressive but at Leone the net result of four years' learni from ETV was a drop in scores.

They also quote Harwood who administered the test in 1966, (see Table II.9). The picture shown here looks very much like a case of diminishing returns. Harwood credited TV with impressive gains but in a replication (1967) found exactly the opposite results; that is, the more TV the lower the learning scores. "I could hardly put any credence in them" (the results) (quoted on p 114). But given the emerging pattern in 1966 it is not surprising that after another year's ETV the scores would have started to drop. He devised yet another test which showed that students were learning oral English from ETV. Those results are displayed in Table II.9 under 1968. Again we see the same pattern of slowing a clearly after 3 years of ETV there was a drop in scores. The third year put them back 9% on the previous year. Schramm et al note that the

Table II.9 Oral English Scores in Grade 7 by Years of Experience with ETV, 1966 and 1968 (from Tables 21, p 115 & 23, p 116)

	1966			1968	
	Years of ETV	Mean Score	Gain over Previous Year	Mean* Score	Gain over Previous Year
3 Schools (N=43)	0	39		29	
1 School (N=29)	1	57	18 (46%)	45	16 (55%)
3 Schools (N=136)	2	66	9 (16%)	69	24 (53%)
	3			63	- 6 (-9%)

* N=18 in each year of ETV. N.B. The figure quoted for score on three years of ETV is incorrect. I have used the correct score calculated from previous table.

interaction between age and years of ETV was weaker than might have been expected and that Harwood was 'disturbed' by the fact that the two ye group did better than the three year group. He concluded "it is difficult to believe that they (the two year group) were not coached or selected for their excellence". (quoted on p 115) This looks like a case of wishing away the data and Schramm et al do not question it.

Schramm et al's tables 25 and 26 purport to show the difference in oral English and reading between two schools with TV and one without. But the numbers are so tiny and the grades different in each case that a genuine comparison is impossible. In the no-TV school, only 10 were tested and we have no idea of how they were split between grades 4 to 6. We have examined all the data pertaining to English, written and oral. All of the reliable evidence shows a deterioration in English. B "television's basic purpose was to improve competency in the English language" (p 77). Schramm et al's conclusion is that "there is every reason, at least, to think that the standard of English usage improved notably during those years" (i.e. 1964-1970, p 127).

Next we examine Table A.11 shown here at Table II.10. Grade 12 was tested on the MTELP in 1966, 68, 70 and 71. The differences between the no-TV school Fia Iloa, the accelerated group in Samoana and the TV non-accelerated schools are dramatic. They underscore what we have learnt so far: television cannot teach. On these figures face-to-face teaching is from 16 to 19 times more effective than television.

(iii) TV or No TV?

Having seen the destructive effect of ETV in actually lowering Samoan students' performance relative to the mainland, let us look now at Fia

Table II.10 Performance in Grade 12 on Michigan Test of English Language Proficiency by TV, or no TV and TV 'accelerated' (From Table A.11)

		Percent Scoring Over 70	N*
School:	Samoana		
	TV & Accelerated	81.5	35+
	TV & non-accelerated	6.3	113+
School:	Fia Iloa		
	No TV	68.0	?
School:	3 Others (mean		
	TV & non-accelerated	3.7	434+
	All TV & non-accelerated	4.3	547+

* Sample sizes are not available for 1966 & 1968

Iloa, the only school which avoided the use of TV. As Schramm et al point out, there is nothing in the genetic inheritance of Samoan children that kept them from gaining an academic grade per year as at Fia Iloa "they did make it" (p 133). By 1970 Fia Iloa was 50% populated by Samoan children for whom English was still a second language, although from their higher socio-economic status they may have been more familiar with it. But as Schramm et al's Table 33 shows, it was not only English on which they were ahead of their grade.

Table II.11 Percentage Achievement of U.S. Norms for Fia Iloa and other Schools in 1971 (from Tables 33, p 134 & A.5, p 203)

Grade	Fia Iloa No TV	Others TV
1	203	
2	145	
3	130	63
4	123	50

Table II.11 shows that over all texts in 1971 the school with no TV was performing at better than U.S. norms. The difference between this and the mean performance for the ETV schools is again dramatic and cannot be put down simply to other differences as Schramm et al attempt to do. No wonder the Samoans became convinced that they had been given second best (p 77). They had!

(iv) Recovery

Finally we may enquire as to progress after ETV was dismantled, the process which began in 1970 and was completed in the high schools by 1975. This date is probably too late for the high schools and perhaps overstates the case in the primary grades. At the end of 1972 high school students were watching only one hour per week while at the end of 1975, grade 8 was still watching over three hours per week. Apart from reruns of old ETV these younger students were also watching 'educational' programmes such as 'Sesame Street' and 'Electric Light Co.'. (p 184) This difference in viewing between the primary and secondary students may well explain the discrepancy between the progress of grades 8 and 12 shown in Table II.12.

Table II.12 Percentage Gain for Grades 8 and 12 After 1972 (from Tables 29 and 30, p 124)

Baseline Score	Reading		Language Arts		Maths		Social Studies		Science	
	G8	G12	G8	G12	G8	G12	G8	G12	G8	G12
1972	243	289	273	331	316	364	259	325	271	311
Percent Gain										
1974	0.4	6.2	2.2	3.3	7.0	1.1	0.8	9.5	-0.7	-1.6
1975	3.7	4.8	4.0	2.4	7.6	2.2	6.2	7.4	-3.3	-2.6
1976	-2.9	7.6	2.6	1.5	3.8	0.0	5.0	10.8	-5.2	-2.6
1977	-1.6	8.0	1.1	3.3	0.9	2.7	3.9	10.5	-6.6	(28
1979	-0.8	9.7	0.7	3.6	1.3	3.8	2.3	12.3	-6.3	-0.

*The score given in Table 30 of 398 is clearly a typing mistake and most probably should read 308. This would yield a % gain of -1.0

Tables 29 and 30 from which Table II.12 is derived are SRA growth scores which Schramm et al tell us can be converted into grade equivalents but the formula is not provided. We cannot therefore directly compare progress after 1972 with the ETV period. However, what the table does make clear is that for the grade 12, high school students, much smoother growth in achievement was made after the television was replaced, with the exception of Science. Schramm et al do not attempt to explain this exception but it is possible that teachers generally neglected Science in order to concentrate heavily on raising the knowledge of basics. We are also told elsewhere (p 82) that most of the new teachers recruited to replace ETV were English teachers. Also we are given the scores of grade 12 on an English as a Foreign Language test (TOEFL) for 1976, 77 and 78 (Table 31, p 125). From a baseline mean of 385 in 1976 there was a percentage increase in score of 2.9 to 1977 and another 4.5% increase between 1977 and 78. This supports such an interpretation and also shows that the Samoans were finally making some progress towards comparability. Schramm et al also tell us that between 1975 and 1979 students actually gained.

> "3.9 grades in social studies
> 3.3 grades in science (?)
> 3.0 grades in language arts
> 2.9 grades in reading
> 1.6 grades in mathematics." (p 125)

Thus in this post-ETV recovery phase "Samoan high school students are gaining at the rate we would expect of a mainland high school student" (p 125); something they were totally unable to do while television was the teacher.

The grade 8 scores are certainly not reflecting such a reconstructive period and in reading as well as science, have slipped again from 1972. Schramm et al acknowledge this as disappointing but make no attempt to

relate the difference between grades 8 and 12 to the differential use of TV. In fact they write of the trend in twelth grade scores as if it we a testament to ETV. "It should be pointed out . . . that the time series we have presented relate to the last nine years of a 15-year project in which the more spectacular changes may very well have occurred in the first half-dozen years." (p 129) But as we have seen progress only began after ETV was removed. They remain 'puzzled' by the grade 8 scores (p 126).

There was some measurement of attitudes towards ETV and while we know that in this field attitudes and survey data are unreliable guides to behaviour, it is worth noting that a pattern of declining support for ETV was evident in American Samoa as had been found in Hagerstown, Maryland and El Salvador. Schramm et al wonder about "the extent to which it (sharp decline in favourable attitudes) is a necessary concomitant of ETV" (p 94). Necessary for what? This data together with the strength of opposition which fuelled the dismantling of ETV lead them to conclude that "there is very little in the data to encourage anyone to think that what happened in the early 1970s was a rejection of television per se" (p 104). After two pages of speculation about what could have been done differently, they note that "it would be a very brave educator today who would prescribe core teaching by television for an entire school system, and an even braver one who would install it without trying it out cautiously, bit by bit, and standing always ready to make adaptations and alterations" (p 105). Indeed! The only adaptation or alteration the Samoans could see that would help the situation was the elimination of ETV.

3. Two-fold Failure

"The possibility of being able to carry adult educational programs to the entire island at once and to convey information to a majority of the people had great appeal." (Governor Lee, quoted p 26) Believing there would not be an economy to support a commercial type of TV, the governor planned on showing travelogs and "a bit of entertainment in the evenings" (p 61). But once introduced the growth of commercial network TV "was inexorable, even as educational television was being systematically cut back" (p 61). "The balance of education and entertainment had been reversed" (p 148) by 1979 and on quite a scale. It was gradual but irreversible (p 150).

Table II.13 Reversal of Education and Entertainment by 1979

	In-School (Production)	Out-of-School (Consumption)
Height of ETV	6000 progs. per yr	28 hours p.w.
1979	1 (40 mins)	189*

*Calculated from 3 channels every day from late afternoon to late evening (p 148) where this period taken as 3 pm to midnight (Appendix D)

"As soon as evening television came into use, it led people to change their living schedules, their social lives, and their tastes in recreation. The 'side effects' of school television were thus far broader than the effects in school' (p 68) (emphasis added).

Finally, the most popular shows were those receiving the ratings on the mainland (p 149) namely 'Star Trek', 'Bonanza', 'I Love Lucy'. In 1976 the favourites were 'Police Woman', 'Sanford & Son', and 'Beauty and the Beast' -- not terribly educational. Secondly, apart from the boom in sales of TV sets, the introduction of commercial TV stimulated demand for products "that had never been heard of in Samoa until (they were)

advertised on the air". (p 151) And these included "soft drinks, mouthwashes, potato chips" -- not exactly the most nutritious of foods. A store owner was quoted as saying "Pepto Bismol never sold here before at all. Now it sells like hotcakes" (footnote to p 151). Television had come of age in Samoa.

Thus ended school television and the dream of adult education in the mass consumption of mainland culture. But Schramm et al are dogged in their attempt to retrieve something from nothing. They use a fragment of data from an audience survey in 1976 to show that 20% were being educated at home because they watched TV before 3.00 p.m. when only some school television was shown. (p 153) Given the accumulation of data presented here, the more likely interpretation is that if people have a TV and time on their hands, they will watch anything. They actually confirm this on page 156. "The general pattern of viewing one deduces from the survey is that in Samoa most viewers (in December, 1976) turned on the commercial network channel and left it on." In other words, Samoans are no different from anybody else.

Thirdly, "the mass media were among the most important forces in bringing about . . . attitudinal and behavioural changes, which agrees with our conclusion that American entertainment television was at least partly responsible for the rapidly changing way of life." (p 161) This is a polite way of saying that television helped destroy Samoan culture. Schramm et al document in detail the changes in values as Samoan teenagers moved towards mainland culture.

There were therefore three major costs.

(i) the cost of setting up and producing ETV which did not decrease over the years; nor did it reduce the cost of education as a whole (p 87)

(ii) the cost of the damage done to educational achievement by using television as teacher, and

(iii) the cost of the rapid destruction of indigenous culture.

In any terms it was an expensive venture.

In Conclusion

1. ETV failed to teach, even to the standards previously achieved by a neglected system in a shambles. It therefore positively disadvantaged the already disadvantaged. Its removal from the high schools produced a return to pre-ETV achievements. Continued although reduced use in the primary schools produced patchy but essentially continuing degradation of standards.

2. Commercial network TV was a brilliant success. It advertised and the Samoans bought. It entertained and the Samoans changed their values and way of life. While ETV failed to produce a change in knowledge, commercial TV achieved a massive change in values and behaviour. ETV caused a deterioration in knowledge about the world; commercial TV operating through 'knowledge of' was an efficient and effective agent of cultural change. The Bold Experiment has proven a first class demonstration of what television can and cannot do. It is par excellence a marketing medium. It is in no sense an educational medium.

Let us now compare their final judgements with those derived from the re-analysis performed here:

(a) "There is nothing in this evidence to say television succeeded or failed, except that it did not accomplish the expected miracle" (p 145, my emphasis)

(b) "There can be little doubt that it contributed greatly to raising the standard of English in the schools" (p 146)

(c) "The figures on student learning, so far as we can now resurrect them, though not spectacular are far from discouraging" (p 5)

(d) "We know that students can learn from television. There need no longer be any doubt about that . . . the instructional effectiveness of television is not in question" (p 187)

(e) "A realistic expectation is that ETV, well used, will produce not a miracle, but rather a measured, steady, consistent improvement" (p 192). But as we have seen the only consistent improvement took place in the high schools after ETV was totally removed.

(f) On the growing hostility of teachers to ETV -- "teachers change with the experience of television in their classrooms, and the change is especially dramatic and noticeable in the case of experienced teachers who are not highly trained" (p 190). "What took place in Samoa in 1971-4 was not a rejection of educational television" (p 90).

Schramm et al do admit there was an "increasing gap between the Samoan performance and the mainland norms" (p 134). The attempt to use almost every possible explanation for the failure of ETV except the obvious one: ETV disadvantages. For example, consider "that the SRA standardized tests used in the upper grades were made to fit a mainland culture, curriculum and environment, rather than Samoan". But "the television

teaching was derived almost wholly from mainland experience" (p 135). If these students had learned mainland culture and experience from the ETV content, they should have had no difficulty with the standardized tests.

There was also the turmoil caused by the project, particularly "a rising current of dissatisfaction & tension" amongst teachers and students alike (p 137). As we have seen this was well founded; not a cause of failure but an early consequence. Thirdly, there was the initial background of disadvantage wrought by history and culture. But the claim of the NAEB and its supporters was that with ETV, students would break out of the disadvantage trap and gain an academic grade per year "rather than falling further behind mainland norms" (p 133). In using this argument Schramm et al are implicitly confessing that they know ETV totally failed to achieve its objective. They come closer to being explicit on p 186 -- "the result fell far short of achieving a standard comparable with mainland schools, an objective that in any case probably was unattainable."

Fourth, we have a discussion which includes in its first paragraph "there is another aspect of the problem of using English as a second language of instruction". Yet we were told clearly on pages 58-59 that English was the language of instruction, of teachers and television alike. The point of their argument is that Samoans succeed easily in memorization, the hallmark of an oral culture, rather than abstract concepts or reasoning. This could explain the failure but again the situation was known before the experiment began and the promise of ETV was to work the transition from oral to literate.

Finally we are given the argument that "the cutback in television explains the gap". (p 144) While they note "that the twelfth grade students gained steadily in SRA scores through the 1970s, even though television disappeared from the high schools in the early years of the decade" and "without denying the impressive gains made in the secondary schools after television was all but deleted" (p 145) they argue that "television must have been more important to the elementary schools than to the high schools." (p 145) Perhaps it was assumed to be for the reasons they enunciate but we have seen the results of that concentrated viewing. Their argument rests finally on science and maths which were the first to be eliminated from primary grades ETV. These scores did drop from 1970-9 for grade 8. But then we find "oral English, language arts and social studies continued to be taught with the aid of television; SRA scores rose in language arts between 1970 and 1979, and held about even in reading and social studies". (p 148) We note:

(i) Language arts showed less than a 1% increase in scores over 9 years

(ii) Reading scores were identical in 1970 and 1979

(iii) Social Studies in 1979 showed an increase of 2.3% over 1970

(iv) During the dismantling period there was "more emphasis on English" (p 145)

Obviously the emphasis changed, not only from ETV to teaching face-to-face, but also in policy from science and maths to basics. But with the aid of ETV from 1970-79 these elementary students lost nine years progress in reading, almost as much in language arts and some lesser but still substantial amount of learning time in social studies. In the high schools with no TV during the same period, the students did at least gain more than a year in reading and two years in social studies over a seven year period. (p 123) Schramm et al were 'hesitant' about

suggesting that cutbacks in ETV caused the gap because it may have sounded "like special pleading for a cause in which we might have developed a special interest" (p 144). Methinks their presentation of this case could be construed as something more serious than special pleading.

The experiment was clearly a failure and destructive in several ways. What then can we say of this evaluation? Basically we have a choice between incompetent or deliberately misleading. A few clues as to the correct interpretation of results are tucked away in the text but it is to be hoped that "any developing country that is thinking of using television to improve its educational system, and any affluent country that is thinking of helping to support such a project" (p 197) will carefully study the tables before proceeding with any further bold experiments.

CASE No. III

EL SALVADOR: A GENUINE SHOWCASE!

In March 1967 President Lyndon Johnson set forth a U.S. proposal to sponsor ITV programs in Latin America. (Mayo et al, 1976, p 27) The Salvadoran government was already seeking aid for an ITV program from the World Bank. With U.S. AID they decided on a program to make El Salvador "a genuine showcase for the rest of the hemisphere". (as above, p 28)

On one significant matter the Salvadoran government refused to go along with U.S. proposals. They rejected the notion of ITV for primary grades and insisted that it be restricted to the 7th, 8th and 9th grades. They advanced solid economic reasons: (a) the economy was based on plantation production of coffee, sugar and cotton and hence greatly exposed to the vagaries of world market prices. (b) the immediate future appeared to lie with futher rapid industrialization, along the lines that they, Mexico, Brazil, Taiwan et al were already taking, (c) rapid industrialization demanded a rapid inflow to the workforce of young people with a modern education in science, mathematics and English language, i.e. a basis for an urban middle class and skilled labor sector. The obvious immediate barrier was their existing secondary education system -- dedicated to the Hispanic tradition it was centered on Spanish language, the humanities, rote learning of 'the verities' of that tradition, and so lowly valued in the public school system that it was very understaffed, the salaries of the teachers were so low that many had to take second jobs and about eighty percent were qualified only to teach at primary school level. The Salvadorian Commission on ITV believed that "instructional television would help compensate for the many unqualified secondary school teachers who could be trained in short

time as effective monitors within television classes." (p 27, my emphasis) They did not question the assumption that ITV, with master teachers and professional program production, could surpass the education currently being provided. In almost every way, the existing system and its implementation and goals replicated the Samoan experience.

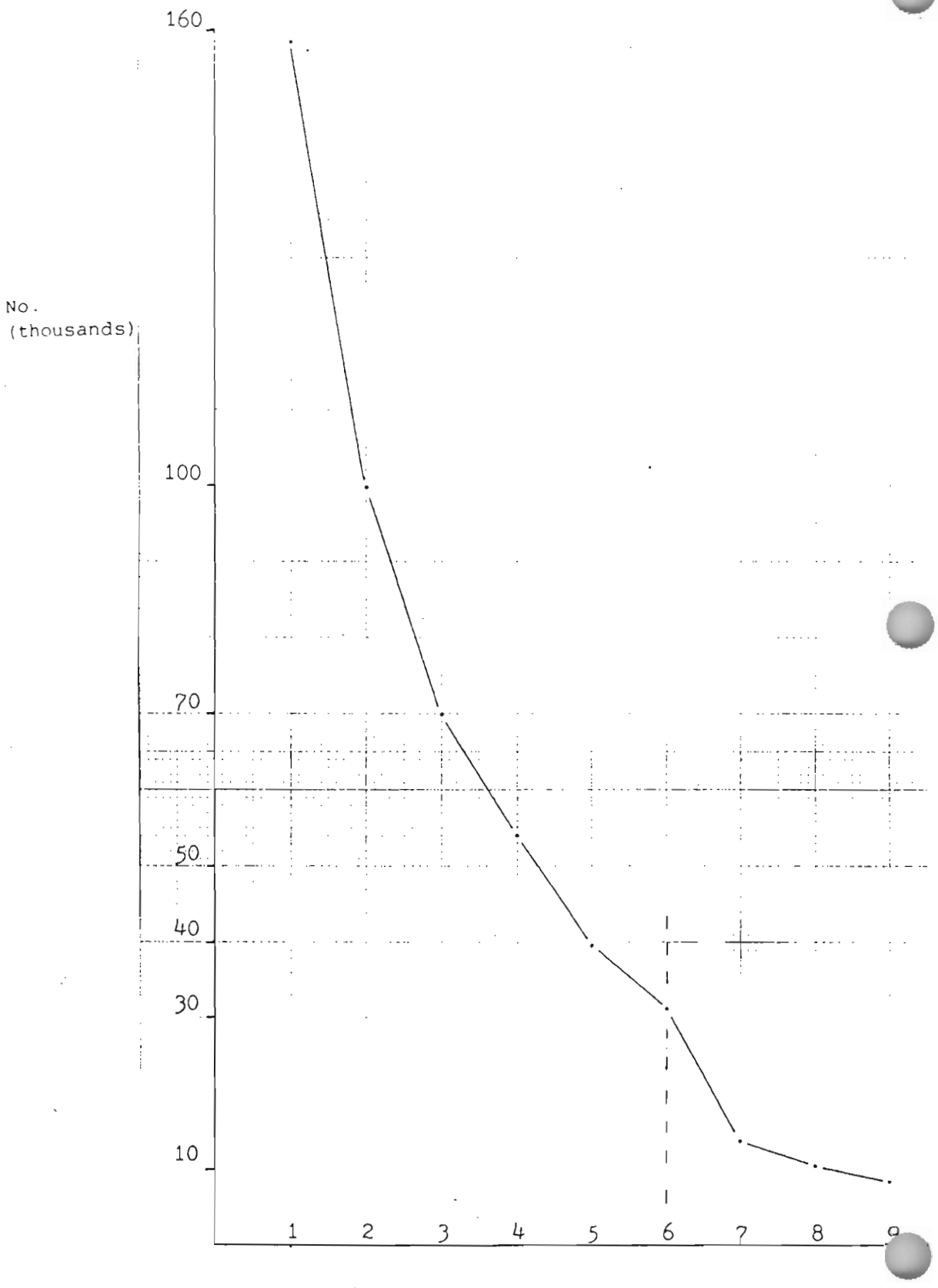
In cultural terms, the one significant difference between Samoa and El Salvador as case studies, was commercial TV. This was already established in El Salvador by 1968 and no direct data are provided about its cultural effects. We are however given some indirect clues that the prior arrival of "cartoons, adventure series, and soap operas" (p 89) contributed to the rapid disenchantment with ITV amongst incoming students. There was a cumulative feeling over the evaluation period that "television in the classroom was really more classroom than television" (p 90). In other words ITV was not the real or quintessential phenomenon to which they had become accustomed: it could not meet expectations engendered by "more polished commercial programs" (p 90). But this difference in timing appears to have had no systematic effect on actual measured results of learning from educational television. In both cases it notably failed to deliver on its promises.

Seen from this distance in time it would appear that the decision to focus on the secondary schools was again politically inspired, as well as making short term economic sense. The political setting for these decisions about the 'model program for ITV' was not comparable with western experience. As is typical of Central American plantation economies, the basic social division was (and still is) between a large proportion of landless, or near landless, rural laborers and a small group of old large landholding families, in a tight bond with the

military and naturally, firmly determining national policies in their own best interests. The distribution of wealth was highly polarized: in the northern coffee growing areas, the average income was such that two families out of five could expect to provide only $US 31 to house, feed and clothe a child at school for a nine-month school year (10¢ per day, p 11). The Salvadorian state educational system on the eve of the ITV demonstration reflected this socio-political setting. A law for compulsory primary education existed but in this setting "fewer than one in seven who began school ever graduated from the sixth grade; two-thirds of all rural schools did not offer all six primary grades and 60 percent of them had only one room and one teacher" (p 20-21). The following graph indicates how laxly the national authorities enforced the law for compulsory primary education:

Figure III.1 Enrollment in Grades 1-9 in 1967, El Salvador

(from Table 2.1, p 21)



The graph also indicates the sharp break between completion of primary school and entry to secondary school. With entry into secondary school the shape of the curve also changes radically: See Table III.1.

Table III.1 Wastage by Grade level. (from Table 2.1, p 21)

Grades	Percent Loss	Base N
1-2	37%	158.5
2-3	30	
3-4	23	
4-5	27	
5-6	21	
6-7	58	31.3
7-8	25	13.8
8-9	14	10.4

Students able to continue on to secondary education "were still something of an elite among their age group" (p 60) -- a social and economic elite.

1. Reform and the Introduction of ITV

"Thoroughgoing reform" (p vi) was the name of the game and the details of the five year plan given on pages 22-3 document its comprehensiveness. Of 12 major reforms covering industrial relations, reorganization of the Ministry of Education, and supervisory duties, elimination of tuition fees, and building program, instructional TV was only one, but it was the central teaching/learning focus of the entire reform. As with American Samoa, the results of television as teacher must be evaluated not as an isolated feature but one supported and given every best chance by the interlocking of systemic upgrading. The chronology for introduction is set out below:

1968 Revision of 7th grade curricula then production of first TV programs, teacher guides and supplementary printed materials for the students -- a three months' crash course to retrain 100 teachers for ITV classes

1969 ITV and the new curricula introduced in thirty-two 7th grade classes when schools opened in February. Nine months' retraining for the next wave of 250 ITV teachers

1970 The new curriculum introduced to all 7th grade classes and ITV extended to 219 of the 400 7th grade classes.

The original 32 classes begin 8th grade with ITV and a new 8th grade curriculum.
A new wave of 250 teachers retrained for ITV and the new curriculu for nine months.

1971 The original 32 classes begin ninth grade with ITV and a new curriculum (p 45)
The new curriculum and ITV extended as widely as possible in grades 7 and 8 (no figures presented)
A new wave of 250 teachers retrained for ITV and the new curriculum for nine months.
Teacher strike July to September puts 9th grade ITV off the air for the rest of the year and disrupts other ITV

1972 Further extension of new curricula and ITV to all secondary grades and programs and printed materials revised.

2. Evaluation

The potted version of the history of this program which is presented above indicates a sound social strategy for the change of a national educational system: the spearhead of 32 classes providing feedback for the next wave of about 200.

This history, however, also indicates some of the serious difficulti such a practical strategy poses for evaluation of the contribution of ITV per se:

a) the new curricula was introduced into the ITV classes but not into the control classes in the first year. Cohorts B & C could be matched with classes with the new curriculum.

b) the teachers for the ITV classes received retraining for ITV and the new curriculum (a three-month crash course for the first group and a nine-month course for subsequent waves); the control class teachers did not.

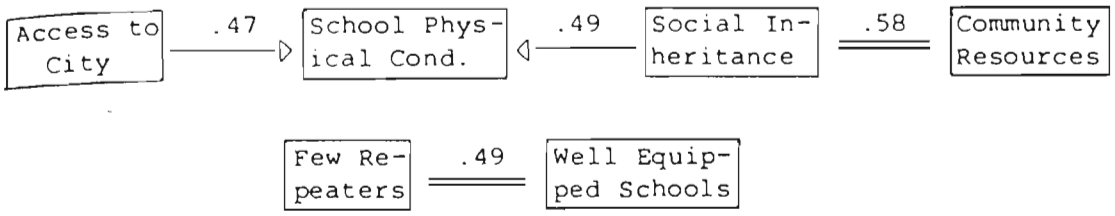
These difficulties were probably unavoidable. Given the political decision to go ahead and limited resources, everything had to be committed to making the program succeed. However, several selecti processes are not considered in the report although they could seriously

affect the comparability of the ITV classes and the control classes. Of the waves of teachers that went into retraining, it is clear that not all went into the next ITV classes. If one were to try to statistically control the comparability of ITV and the control classes it would be necessary to know whether the best teachers were selected for retraining, and whether the best performers during retraining were selected for ITV classes. Given the political and economic pressures to make a success of the program it is reasonable to assume that such was the case, but the report gives no data on which an allowance could be calculated for such biases.

Next, in a small, highly stratified society such as El Salvador, with corruption a way of life, it is difficult to imagine that there was a random selection of the schools, classes and teachers that were to first receive the new educational technology. (This is admitted on p 57-59) From their Table 3.1 we know that the research team had collected enough evidence to measure such a bias. However, at no point do they break this evidence down to compare the experimental ITV classes with the control classes in each cohort. We are simply informed that the removal of tuition fees created a less elitist input to Cohort C (those coming into ITV in the third year).

This is not a trivial source of bias. Causal path analysis of the matrix of correlations between social, economic and educational performance (table D.11) shows that differences in educational performance are overwhelmingly determined by socio-economic factors. Even slight biases in these matters could override the effects of ITV (or even ITV and retraining of teachers).

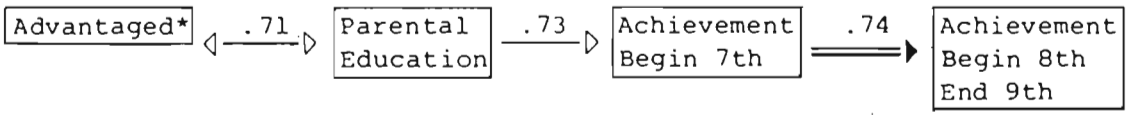
Figure III.2
(A) The Advantage Cycle of SES, School and Achievement Variables
(from Table D. 11. p 203)



*Where: 'Social Inheritance' describes the cluster of variables, nos 1, 2, -3, 5, 13, 14, 15, covering mother and father's education and wealth and cognitive skills achievement and young age.
: 'Community Resources' consists of variable nos 6, 10 & 12 describing school size, access to city & community resources
: 'Well Equipped Schools' covers variables nos 8 & 9; teaching materials and school facilities.

Quite obviously this analysis bears out the most consistent finding in educational research, namely that the educationally rich get richer. If we zero in more specifically on home background and achievement at the same level of analysis, we find the pattern shown in Figure III.2 (B)

(B) The Advantage Cycle of SES & Achievement Variables



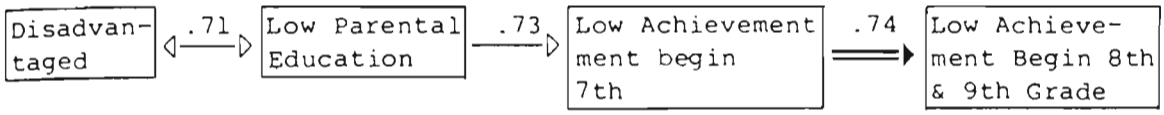
*Where: 'Advantaged' consists of variable nos. -3&5, youthfulness and wealth
: 'Parental Education' covers both mother and father (nos. 1&2)

Little doubt could remain about the pattern of influence on achievement in El Salvador's schools. Mayo et al say themselves that "the abilities Salvadorean students brought with them to the seventh grade determined, more than any other single factor, the ability levels they had reached by the end of eighth or ninth grade" (p 64). ETV, once again, failed to narrow the gap between the haves and the have nots. As the evidence of ETV (ITV)'s failure to redress this imbalance accumulated, it is not surprising that rising dissatisfaction about allocation of resources eventuated in the teachers' strike. Television may not aid the

advantaged, but it positively disadvantages the already disadvantaged. For those who have something, or a lot else, it can well be treated as a source of stimulation, an additive, but for those with few of the basics such as 'well equipped schools', it produces the results that Sprigle demonstrated on the small scale (1971). Reversing the total pattern in figure (A) shows precisely that finding.

Figure III.2 (C) Reversal of Figure (B)

(B) The Disadvantage Cycle in El Salvador



Mayo et al consistently document the failure of ITV to change the sex imbalance and the rural/urban chasm (see p 65). And this is accompanied by the comment that it is "not surprising". It must have been extremely surprising to the Salvadoreans however, whose expectations that it would solve their "pressing . . . social problems" (p 20) had been fed by such as President Johnson's comment that "Samoan children are learning twice as fast as they once did, and . . . from them . . . will come scientists and writers" (Schramm et al, 1981, p 64); the positive feasibility study by the NAEB, and the US AID representatives who urged "as full a test as possible" to produce the showcase (Mayo et al, 1976, p 28).

The problems of evaluation do not cease with these issues of confused causes and sample biases. The authors claim that "there were no standardized achievement tests in El Salvador, new tests had to be built on the intended objectives of the courses." (p 57) Does this mean that no international test had ever been administered in El Salvador up until 1968? Certainly the Mayo team do not report any. "Little was known . . . about how these abilities (to read and learn) were distributed among El

Salvador's school population" (p 56). Little? Yes perhaps, but nothing to serve even as notional benchmarks?

There were problems with the test instruments that are given a good deal of attention in the report (particularly pp 70-72). The achievement tests were unvalidated, "mainly concerned whether language in the test conformed to Salvadorean usage" (p 71). No satisfactory evidence of the reliability of the achievement tests is provided. There are more serious difficulties that are not faced up to in the report. The curricula reform eliminated most disciplinary studies:

Table III.2 Comparison of Traditional & Reform Curricula

Traditional Curricula	Reform Curricula
biology chemistry physics civics morals history geography	general natural science social studies
algebra geometry trigonometry	modern maths
Spanish language arts	Spanish language arts English

As the 1962 Schramm study showed, ITV is at its worse with fact-centered disciplinary ('knowledge about') studies and at its best with communicating a general sense of 'knowledge of'. It would seem that the new curricula were designed for television and would impose a considerable burden on under-educated teachers.

The Educational Testing Service at Princeton who devised the tests for 'Sesame Street' were engaged to construct the achievement tests based on

the new curriculum. As the authors remark, "how accurately each tests sampled its curriculum must remain in doubt . . . When the first drafts of the tests were made available to them (the teams drafting the new curricula) they had only a vague notion of what they would be teaching even a month hence, let alone what they would be teaching at the end of the year. Thus their review of the test was mainly concerned with whether language in the test conformed to Salvadorean usage." (Footnote p 70) The ETS in similar fashion to 'Sesame Street' devised tests each of which contained "50 multiple-choice questions" (p 70-71). Once again recognition rather than recall was operative combined with unreported validity and reliability. Thus again we have a clear measurement bias against what face-to-face teachers are attempting to accomplish. But note well here that even this bias towards ITV could not establish it as the more effective teacher, or even as an effective teacher.

The sample design of the evaluation is shown in Table III.3. "Inevitably, there remained certain imperfections in the design of the study" (p 59) but it did provide a profile of the cohorts as they progressed through traditional education to Reform which includes both ITV and non-ITV classes. Table III.4 gives the basic and changing character of cohorts over the introductory period.

The asterisked figures in Table III.4 show the gradual democratization of the eductional system following the introduction of the Reform. Clearly more disadvantaged children were entering the system by 1971 and it was these who received the full 'benefits' of ITV.

Table III.3

Sample Design
(from p 58-9)

	ITV		NO ITV			
	Traditional	Reform	Reform	Traditional		Σ= Survivors
Yrs in 7th grade						
1969 Cohort A						
No. classes	-	25	4	9	38	
No. students		581	114	207	902	706
Av. class size		23	28	23	24	78%
1970 Cohort B						
No. classes	-	18*	11	-	29	
No. students		482	225	-	707	519
Av. class size		27	20		24	73%
1971 Cohort C						
No. classes	-	18	5	-	23	
No. students		467	133		600	562
Av. class size		26	27		26	94%

(*Three of these were eliminated as they could not be matched wi
comparable non ITV classes, p 81)

Table III.4

Characteristics of Cohorts

	A	B	C
Av. age	13.9	13.6	13.8
% Female	45.0	44.0	47.0
% Rural	8.0	10.0	20.00*
Father Edn. some secondary or more	28	29	24
Mother Edn. some secondary or more	18	20	17
Fa. occ. skilled +	21	16	12*
Home TV	50	52	36*
% Repeating at least one grade	47	47	44
Mean Score on General ability test	60	59	53

3. Results

Given the degree of unreliability in the achievement tests the evaluation team set a 20 percent annual gain as "the criterion for learning sufficiency" (p 72). Tables III.5 and III.6 present the overall success of ITV in El Salvador.

Table III.5

Average Percent Gains and Learning Sufficiency where 20% annual Gain was taken as Criterion (p 73) (from table 3.3, p 73)

Grade	Cohort	Maths	Science	Social Studies
7th	A	48	30	27
	B	22	23	28
	C	24	21	26
8th	A	12	7	10
	B	18	12	12
	C	17	1	20
9th	A	16	10	9
	B	26	13	4
	C	-	-	-

Taking 7th grade against 8th and 9th gives us the following picture:

Table III.6

Learning Sufficiency Across All Subjects

	Over 20% N	Under 20% N	
7th Grade	9	0	$x^2 = 20.16$
8th & 9th Grades	1	14	$p < .001$

The educational reform appears to have failed despite the increasing proportion receiving ITV. Mayo et al hasten to tell us that "this is not

quite as bad as it appears" (p 73) because there were delays involving Cohort A's measurement in grade 8. But their scores in grade 9 weren't much better. They make no other explanation for the generally dismal result. What is striking is the same pattern of diminishing returns that was consistently noted in the Samoan case.

The gains in the first year, seventh grade, can be put down to two factors -- practice with the multi-choice format which was quite strange to these students (p 62) and learning the new language of the new general courses, the language in which the tests were couched. The new curriculum was not introduced into the earlier school years until after cohort C entered seventh grade. But one would assume that with further practice in these areas the gains would continue to increase.

Against this background the differential effects of ITV were examined. To simplify comparison between cohorts, years and subjects I have used a standard index of the form $\frac{A-B}{A+B}$ which ranges from a value of +1.0 to -1.0.

$$\frac{A-B}{A+B} = \frac{\text{Percent gain with ITV} - \text{Percentage gain without ITV}}{\text{"} \quad + \quad \text{"}}$$

Thus a value of +1.0 would indicate that only the group with ITV made gains and -1.0 would indicate that only those without ITV made gains.

(See table III.7)

Table III.7

Relative Effectiveness of ITV for Science
(from Table D.9. p 210)

Year	Grade 7	8	9	Cohort	Weighted Mean
1969	.54				.54
1970	.41	-.28			.01
1971	.09	-.19	-.10		-.07
1972		-.75	-.35		-.41
				A	
				B	
				C	
Weighted* Mean	.36	-.40	-.21		

*Weighted for size of cohort

Owing to the design faults, these disastrous outcomes could be due to the higher wastage rates in the non-TV groups in cohorts A&B but no such difference in wastage occurred in cohort C. For cohorts B&C, grade 7 was an introduction to newly re-trained teachers, new work books and a more coherent curriculum of studies regardless of whether they had TV or not. No matter which way the data is read it does nothing to inspire confidence in TV as a medium for teaching science. As the authors note this was particularly disappointing for the Salvadorean authorities both because of the perceived need for basic scientific understanding and the economic difficulty of providing laboratory facilities in every secondary school.

For relative effectiveness of ITV for social studies see table III.8.

Table III.8

Relative Effectiveness of ITV for Social Studies

Year	Grade 7	8	9	Cohort	Weighted Mean
1969	.61				.61
1970	.36	0			.15
1971	.17	-.32	-.48		-.23
1972		.17	.19		.18
				A	
				B	
Weighted Mean	.40	-.04	-.20	C	

This is another disappointment, but for a different reason. In the modern broadly conceived sense of social studies the emphasis is on familiarization with social, cultural and geographic differences. TV can be very good, compared with other media, in creating such iconi 'concepts' that can subsequently be readily recognized, though not easily recalled. The test for achievement in Social Studies was multi-choice and hence heavily biased toward recognition. In this case ITV achieved nothing beyond chance level.

Table III.9

Relative Effectiveness of ITV for Mathematics
(from Table D.8 p 201)

Year	Grade 7	8	9	Cohort	Weighted Mean
1969	.20				.20
1970	.39	.28			.33
1971	-.17	-.31	.64		.12
1972		.43	.10		.27
				A	
				B	
	.14	.16	.42	C	

In the face of earlier findings about the ineffectiveness of TV in teaching mathematic this is a surprising overall finding.

This finding is also surprising in the face of the fact that "The most abrupt change (in teacher attitudes) revealed by this study was the sudden demise of televised mathematics, which began in 1970 as the most highly rated course in the seventh grade (TV) series and the second most highly rated in the eighth grade. By 1972 it was at the bottom of the list in all three grades." (pp 135-36). ". . . very few students were willing to give up television completely . . . only in mathematics was there a substantial percentage of students (35%) who wished to see ITV eliminated." (p 91)

Table III.10

Percent of Cohorts Rejecting ITV for Maths
(from text, p 91)

Grade	Cohorts: A	B	C
Begin 9th	5%		
End 9th	20		
Begin 7th		7	6
End 8th		33	36

Table III.11 shows that by 1972 more than four times as many teachers wanted ITV eliminated from maths than from other subjects.

Table III.11
Teachers' Preferences for Number of Classroom Periods with ITV, 1972
(from Table 6.3, p 136)

Subject	Percent Favoring All Periods with ITV	No Change	No ITV
Maths	12%	62%	26%
Mean of Science, Soc. Studies, English & Spanish	34	61	6

There was a clear-cut difference in preferences for maths and the other subjects. It is likely that dissatisfaction with the ITV maths programmes lead staff and students to collude in not watching them. It would seem improbable that the people of El Salvador would behave differently in this regard from those of Samoa. It need only have taken two full years' experience with it before disenchantment, collusion and avoidance set in. Another possibility inheres in the statement (p 7[illegible] that "in the belief that a more accurate sampling of the curricula could be obtained through direct consultation with ITV staff, the evaluation unit itself revised the achievement tests in 1972, raising the number of questions on each test from 50 to 60." Nowhere is there a discussion of the correlation between the new 1972 tests and the earlier version.

It is also highly probable that the improvement in TV performance in 1970 was in fact due to the fact that these were the first teachers to receive nine months of retraining (the 1969 ITV teachers had only a crash course of three months).

The only other measures of ITV effectiveness are related to reading and general ability. The reading test was only in Spanish (p 176). Television instruction was given in Spanish and English. Many reliable tests exist for the measurement of comprehension of English and it is

difficult to believe that no such tests were administered -- a grasp of English was, after all, one of the prime aims of the government's educational reform. However, at no place does the report ever refer to the results of such testing. Is it possible that they got the same sorts of appalling results that appeared in the Samoan experiment?

The following table focuses on the relative effectiveness of ITV for reading comprehension in Spanish. Not only the scarcity of reported data but also its admitted doubtfulness preclude the simple format of the preceding tables. We are told on p 69 that the figures in their Table D.3 are "estimates . . . subject to error factors perhaps as large as 10 or 20 percent at the 95 percent confidence level." In a footnote to p 69 we are also told that the tests were changed mid-stream. From all this they conclude however that "the Salvadoran expenditure on ITV and other reforms . . . seems to have paid off" (p 69). Table III.12 illustrates the percent gain with ITV in reading Spanish.

Table III.12

Percent Gain in Reading Spanish
(from Table D.3, p 198)

Cohort	Period	ITV	No ITV
A	Begin 8th - begin 9th	8%	15%
B	Begin 7th - begin 8th	23	25
	Begin 8th - end 9th	20	20
C	Begin 7th - end 8th	33	39

"None of the reading differences were significant" (p 68)

The remaining measure of the effectiveness of ITV concerns General Ability. This measure was a test of intelligence "published by Guidance Testing Associates of Austin, Texas (Spanish version validated in Puerto Rico)" (p 176).

The report makes an astonishing claim, "In general students in ITV classrooms gained more in general ability than did students traditional classrooms (Cohort A) or students in Reform classrooms without ITV (Cohorts B & C)." (p 68) This is astonishing because of all of the claims made for ITV, none have been made for increasing intelligence, let alone claim to have evidence to prove such a claim. Again the data is piecemeal and requires a non-standard presentation.

Table III.13

Increase of 'General Ability' due to ITV
(from Table D.2, p 198)

Cohort	Period	ITV	Non ITV	Significance
A	Begin 8th - end 9th	18	16	n.s.
B	Begin 7th - begin 8th	22	20	n.s.
	Begin 8th - end 9th	17	14	n.s.
C	Begin 7th - end 8th	26	21	n.s.

There is nothing in this table that supports the repeated assertion (see also p 81) that ITV increased "General Ability". As these figures are derived from exactly the same table as those for reading and the cohorts have the same N's, then because the differences here are actually smaller than for reading and none of those were significant, we must conclude that Table III.13 contains no significant differences. ITV did not increase general ability.

4. Student attitudes toward ITV

A series of attitude studies were carried out at the beginning and end of each school year for those students actually in the ITV classes.

> "If any question could be considered the basic measure of student attitudes towards ITV it was the one comparing learning with and without television." (p 89)
> "Question: 'You learn more during class hours with television than during class hours without television" (p 86)

> ". . . at the beginning of each year expectations (of Cohort A) were high but by the end of the year they had declined . . . During their first two years in ITV classrooms, the favourable attitude of Cohort B students toward television declined almost 17 percent . . . they averaged six percent less acceptance of ITV than their peers in Cohort A. Similarly, Cohort C started with nearly 12 percent less acceptance than Cohort B and declined even more rapidly." (p 89) "Certainly, these were pessimistic trends." (p 89)

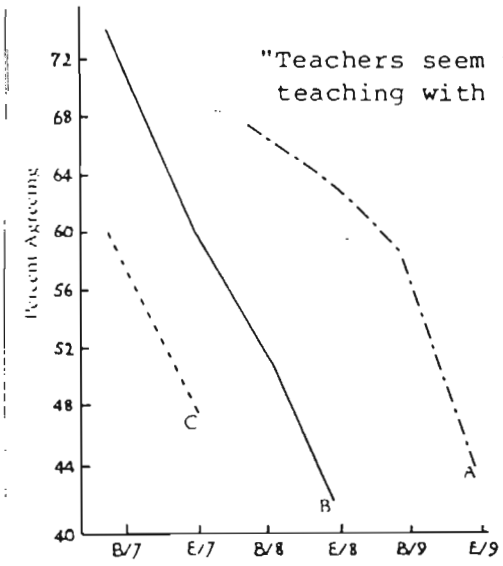
Again the parallel with Samoa is striking.

> "Salvadorean students were excited by the introduction of the medium to their classrooms. It was quite possible that the higher achievement in seventh grade television classes was related to this enthusiasm. However, the motivating effect was not long-lasting; and within each of the cohorts enthusiasm waned when ITV ceased to be something new." (p 99)

The students reported a similar waning in the enthusiasm of their teachers: see Figure III.3

Figure III.3

Students' Attitudes Towards ITV
(from 4.1, p 88)



5. Teachers' Attitudes

Repeated surveys were made of teachers' attitudes. Data are reported on 43 questions. In the table below, I use only those items that were included in all surveys and show a consistent trend.

perhaps the most striking response of the teachers was "the bitter strike" (p 135) through July to September 1971. The teachers contraste the expenditure on the new technology with the "neglect and disdain for the human needs of teachers" (p 135).

Table III.14

Teachers' Attitudes (Percent Agreeing)

About ITV	1969 (n=125)	1970 (n=190)	1971 (n=211)	1972 (n=137)
"Students learn more with ITV than without"	73	70	59	56
"Students learn to study better on their own when given ITV	50	44	37	24
"A serious obstacle to learning with ITV is that students can't ask questions until program over	36	40	66	69
"The ITV Schedule does not allow the classroom teacher enough flexibility	47	55	57	59
About teaching & education:				
Agree: Teaching not a very satisfying profession		18	27	37
The majority of secondary students is not very interested in learning		29	33	46
The great majority of secondary students wants to take advantage of their secondary education		71	47	34
A Very Serious Problem:				
Lack of parental cooperation		27	32	38
Too many students in class		26	39	44
Student behaviour in class		-	9	18

On none of the 43 questions was there a consistently favourable trend.

6. Cost-benefit Analysis of the Program

There appears not to have been net benefit. What was gained in the fir flush of enthusiasm is outweighed by the growing losses with each further year of ITV.

An estimate of the costs is easier to arrive at from Table 7.1 (although these do not include the cost of remodeling classrooms for acoustics and security of the equipment, p 49).

Table III.15 Cost of ITV in El Salvador

	1969	1970	1971	1972	Totals
Enrollment 7-9 grds (T2.3)	25,500	28,100	39,100	52,100	144,800
Costs ($000s, T7.1)	1001	1121	2561	860	(
Distribution of pre '69 costs	400	400	400	400	(7,113,000
Outlay/student	$54.9	54.1	75.7	24.2	$\bar{x}$=$49.1

However, this $49/student year is averaged over all students whereas in fact only a portion received ITV. To put this figure in some sort of perspective we may recall the earlier evidence that in the northern part of El Salvador the average family was expected to house, feed and clothe a child for the nine months of the school year on $32.

Thus El Salvador during the four years 1969-72 became "a genuine showcase for the rest of the hemishpere." (p 28)

There is one interesting little twist to this case study. Much effort was put into public relations in the introductory phase for reasons including the fact that "many parents had the notion that television would damage their children's eyes." (p 49) On this measure the results of the reform remained 'disappointing' as "in spite of retraining and increasing familiarity with ITV, the old fear that television might damage students' eyes -- so often denied by experts and never really supported by evidence -- was retained by 35 percent of the teachers in 1972." (p 128) More than half the students believed likewise and this

belief was widespread in rural areas. Given the evidence surveyed in Part III here and particularly that relating to VDUs, it is possible th these 'backward' people may have had a point.

In Summary

Mayo et al mention that their evaluation came in for criticism (p 54); that "questions arose concerning the future course of the Reform itself", with doubts expressed about long-range benefits and cost effectiveness of the ITV system (p 55). This evaluation team claims to have shared doubts about rapid expansion of ITV to learning opportunities outside school, primary education and teacher training and "a new planning office within the Ministry restored some faith that expansion priorities would be established in a realistic way" (p 55, added emphasis). Reading between the lines is inevitably fraught with dangers but while we are not told that consumption of ITV for grades 7, 8 and 9 was cut back, we are told (p 39) that production was curtailed. Nobody could have missed the pattern of diminishing returns from ITV, attitudinally and in learning as has been noted for Samoa; but as has also been documented here, the evaluation team always managed to find a reason why ITV was not at fault.

These three case studies are from the one stable, the Institute for Communication Research at Stanford with its Director at those times, Wilbur Schramm. As a set they illustrate two fundamental and inescapable conclusions.

Firstly, that television as an educational mediun has been vastly oversold by the academic community charged with its evaluation. effectiveness at best compares only with that of untrained teachers in

neglected and backward oral systems, even when supported by other system-wide reforms and back-ups.

Secondly, that advocacy and evaluation continue to be inextricably confused in this area of social science research, and that this fact alone is a convincing argument for basic reforms in social sicence conceptualization, statistical techniques and reporting.

CASE NO. IV

CAN POVERTY CHILDREN LIVE ON 'SESAME STREET'?

The effectiveness of 'Sesame Street' in teaching pre-schoolers, particularly the disadvantaged is now so firmly established in the minds of many as to be unquestionable. As a single program, it is the shining light which beckons others to attempt to emulate, or perhaps improve on its outstanding success. Details of its huge achievements in attracting an audience of millions, teaching letters, numbers, forms and classification skills, all of these gains bridging the gap between middle-class and lower class and/or disadvantaged children have been documented elsewhere (Lesser, 1975, Polsky, 1974) and are sufficiently well known and accepted not to require explication here.

However, as we saw from the previous three cases, such unquestioning acceptance may be misleading, and in relation also to 'Sesame Street' there is strong evidence that the same systematic sources of bias have operated in its evaluation and advertising.

Dr Herbert Sprigle, a teacher of disadvantaged children, has shown dramatically that when 'Sesame Street' is evaluated strictly and scientifically in terms of its stated goals rather than by how many watch it or like it, it actually disadvantages. Of the goals stated by the Children's Television Workshop (CTW) he selected and tested the following two:

(i) Can 'Sesame Street' prepare disadvantaged children for first grade?

(ii) Can 'Sesame Street' substantially narrow the achievement gap which now exists between the disadvantaged and the advantaged child?

These were the critical two, embodying the whole purpose of the program (Lesser, 1975; Polsky, 1974)

S's were twenty-four pairs of disadvantaged children randomly selected and matched on Binet IQ, age, background and SES. The experimental (E) group attended two Head State kindergartens where they watched each day, one of 130 programs of 'Sesame Street'. The teachers followed up on the day's program with activities suggested by the material distributed by CTW for teachers and parents (p 203) and also sent home supplementary material for parents. It was not then a case of watching TV alone, and as Sprigle points out, the circumstances were optimal. Most children watching 'Sesame Street' at home have neither the environment nor the trained staff to follow through on the program. Controls (C) were not exposed to Sesame Street at home or kindergarten. They attended another program for the same length of time where for 15-30 minutes a day they played with numbers, letters, shapes, etc. and were exposed to language and communication experiences. Emotional and social development was equally, if not more stressed than the cognitive. Sprigle also had two other comparison groups, the classmates of the groups in the first grade they went into and a matched control group from the same kindergarten with the same teachers from the year before, i.e. the year before television was used. Unselected classmates were children from families above the poverty guidelines who were not eligible for Head Start programs. Rejecting the ETS tests developed for Sesame Street on the grounds that they have no predictive validity for first grade achievement, Sprigle administered the widely used Metropolitan Readiness Test (MRT) which has this validity, and which was developed specifically for that purpose. It also measures precisely those skills 'Sesame Street' purports to teach. Figure IV.1 illustrates its six subtests. In

addition, Sprigle administered the Draw a Person Test to the E and C groups. This can be used as raw scores (RS) or as a derived IQ. Al testing was done one month after entering the first grade class so the results measure learning and retention over the summer.

Figure IV.1 shows just how dramatic the results were found to be.* In all but one case (A) the E group had the lowest scores of any. All differences between E and C were significant at $p < .001$. Those who watched 'Sesame Street' with the CTW follow-up did not achieve a sufficient degree of proficiency in those characteristics that are important for success in mastering first-grade work (p 204). They also drew a lower number of body parts "suggesting a poor body image" and their drawings "lacked the imagination that was clearly evident in the figures drawn by the control children" (p 205, emphasis added).

When we examine the comparison of E with their matched controls from the previous year the full effect begins to strike home. There were no significant difference between the 'Sesame Street' trained and those from the same kindergarten, who enjoyed no special experiences. The 'Sesame Street' children had gained absolutely nothing.

Comparing E then with their classmates we find that only on one subtest (Matching) did the unselected and untrained larger group fail to outperform the 'Sesame Street' children. This suggests that E group will have a difficult time in this class where the other children are much

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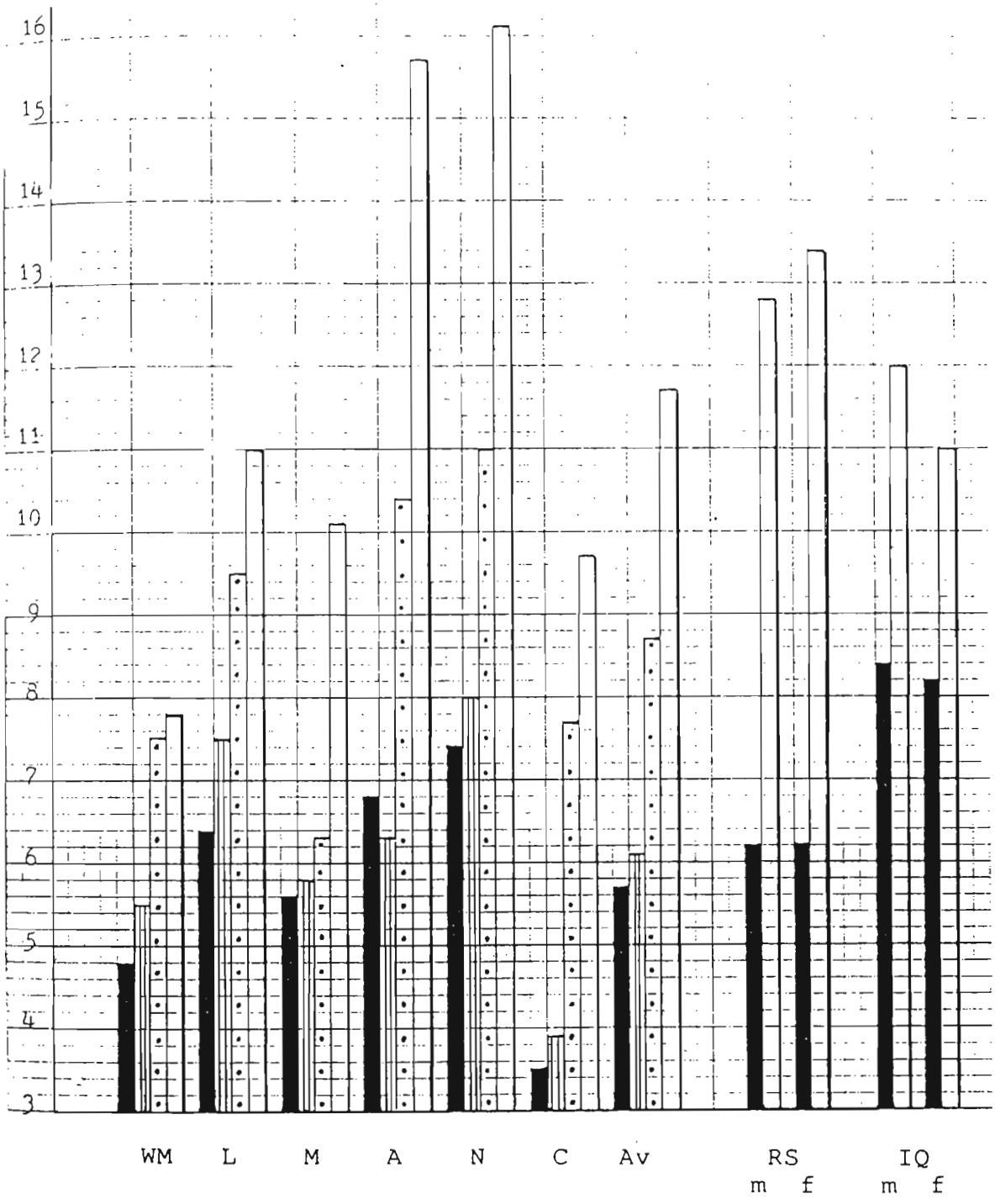
* In order to fit all the data on one graph I have averaged Sprigle's total score on the MRT, halved the mean RS's for the 'Draw a Person Test' and divided the IQs by 10. This in no way affects the comparability or strength of relationship.

Figure IV.1 The Disadvantaging Effect of 'Sesame Street'
(From Sprigle, 1971, tables 1, 2, 3 and 4)



Where: ■ = 'Sesame Street' curriculum,
▥ = Matched Controls from previous year
⊡ = Unselected Classmates,
□ = Matched Controls without 'Sesame Street'.

And where: WM = Word Meaning, L = Listening, M = Matching, A = Alphabet, N = Numbers, C = Copying, Av. = Average score of six tests, RS = Raw Scores on 'Draw a Person Test', IQ = IQ derived from raw scores on same test.

better prepared. Whatever the decision of the teacher -- to request they be moved to a special remedial class, attempt to provide remedi learning while the rest of the class moves on, or to ignore their needs -- "the gap between the middle-income and poverty child (who watched 'Sesame Street') will grow wider. But more importantly, the poverty child's confidence and self-concept are adversely affected." (p 206)

Neither of the two goals set by CTW have been met; more than this,'Sesame Street' has been shown to further disadvantage the already disadvantaged. Sprigle's study illustrates many critical points, only the first of which is the inadequacy of the research and reporting of CTW and ETS. Apart from the fact that the test developed by ETS has no predictive validity for first grade achievement and no criterion measures, it is simply as Sprigle notes (p 208) a test of <u>recognition</u>. The two tests used b Sprigle require <u>recall</u> and <u>ability to perform</u>. ETS must surely have been aware of the critical difference between the methods and their implications.

Polsky's discussion of ETS's evaluation is interesting in this regard. He notes that they measured a child's ability to identify and name a geometric figure which was not one of the primary instructional goals, but failed to measure whether there was increased understanding of rules of justice and fair play, and secondly, the generation and evaluation of explanations and solutions. "The study did not say why these two areas were unexamined. Perhaps the testing agency felt that designing accurate measuring instruments was too difficult, or perhaps the two areas lost their 'priority' status during the broadcast year" (Polsky, 1974, p 9 ETS obviously biased their evaluation towards recognition and away from

recall (understanding) even though this meant disregard of two of the primary goals of the program.

Sprigle like Cook et al (1975) has also found that they failed to correctly interpret their data. The evidence does not support their conclusion that the disadvantage gap was closed. (Sprigle, p 208-209) Similarly, in regard to their claim that nobody knew whether one program can benefit both disadvantage and middle-class children (Polsky, 1974, p 43-44) Sprigle says this "is simply not true" (p 209) and provides the evidence for his claim. Central to this body of evidence are the factors we surveyed in Part I; the ability to abstract and conceptualize which is born of conversation with adults. Totally different strategies are required to teach middle class children who use language as a guide to behaviour, and the disadvantaged who are trapped at the level of concrete objects and events, and cannot generalize. Developing his analysis, Sprigle shows why 'Sesame Street' must necessarily widen the disadvantage gap. Disadvantaged children need an initial learning task of a simple, concrete form with materials to manipulate and explore, with opportunities to use language and demonstrate knowledge within a social setting characterized by conversation. Subsequent tasks must keep pace precisely with progress and reinforce learning. Parents must be actively and cooperatively involved.

There is no evidence of any of these necessities within the 'Sesame Street' curriculum. Materials sent home to parents are abstract and sophisticated, meaningless to child and parents alike. The content lacks a developmental sequence and strategy (p 213). Obviously the TV cannot listen, converse or provide feedback and just as obviously the objects presented cannot be physically manipulated. The original deprivation of

crucial emotional, social and cognitive experiences is compounded. Many poor children feel hostility, aggression and depression. They expre hyperactivity, hypersensitivity, impulsivity, distrust and suspicion arising from their early experiences with others. Above all else, they need a learning environment within which positive human experiences are generated. (p 215-217) "The real danger (is) the point of view that the . . . child is a cognitive system into which you can store information" (Sprigle, 1971, p 215). Conceived and designed on this assumption of the first paradigm together with the most fast paced advertising techniques, it is not surprising that 'Sesame Street' disadvantages. Even the exercises accompanying its viewing within a quality kindergarten setting were insufficient to redress the damage. Sprigle has in this analysis alone provided sufficient evidence to condemn this and similar programs as educational for disadvantaged children.

Ball & Bogatz (1972) rejected Sprigle's analysis by employing a curious logic. They object to non-viewers being compared to viewers, "in order to show middle class children widening their distance from lower class children. Predictably, lower class non-viewers are going to learn less than middle-class non-viewers. Would we argue that Head Start is ineffective because lower clas children who do <u>not</u> attend are increasingly dis-advantaged in comparison with middle class children?" (p 24) But Sprigle showed that it was the treatment conditions, watching 'Sesame Street' which disadvantaged, not its absence! Please also note that they make no attempt to reply to his criticisms of the tests they employ.

In 1975 however, the criticism heated up with Sprigle being accused of embarking "with the largest boatload of false premises about 'Sesame

Street's' purposes and methods", assessing its effects, "not with measures of its goals, but with his own choice of standardized tests of academic achievement in school" and failing to use any advantaged children. (Lesser, 1975, p 227-8) Needless to say, Lesser appears to be wrong on the latter point and Cook et al's (1975) analysis of the ETS evaluation of 'Sesame Street' leaves one in grave doubt as to whether Lesser should be throwing stones at Sprigle's glass house for being "too flawed technically". (as above) Note again, that there was still no reply to the criticism of lack of validity and also, that the MRT was similarly used by Minton, who came to much the same conclusions as Sprigle, and whose study has been extensively used by Cook et al as an independent check on their own findings. (Minton, in Cook et al, 1975)

Both the CTW and ETS point to words and phrases which indicate that 'Sesame Street' was not designed to narrow the achievement gap, and that they have been misinterpreted by Sprigle, Minton and Cook et al. (Ball & Bogatz, 1975) The difficulty for the reader who has followed the 'Sesame Street' documentation is the constantly recurring reference by the CTW to the disadvantaged and the national problem of the 'gap'. Implicitly, this does appear to have been the aim and the ETS has on many occasions claimed that the results show successful achievement of narrowing. In terms of technical competence and logic, the critics would appear to win the day.

CASE V

THE BOY WHO HAD NOTHING ELSE

> "John, silent, still and alone with pictures he cannot understand because there is no one to explain them said 'I'm fed up of that thing . . . it's the same . . . (Dunn, 1977, p 152) "The child who said this had watched alone for many hours daily since he was able to watch. He looked at a coloured screen but, at five, he did not know the names of colours or the name of the thing he complained about, the jigsaw rainbow, which is part of every programme in the 'Rainbow' series. He did not know what a real rainbow looks like. Still, and usually silent, he continued to watch what he was 'fed up of'. How much other television he was 'fed up of', I was unable to judge. When I met him he had another month or so to 'get through' before a local school had room for him. Lacking skills, a garden, an older brother or sister, he had little choice about what to do with his time. The nearest playground lay two busy roads away from home. He was not the 'norm' of children I met. I remember him as I remember them all, as individuals. He was an attractive one, responding to talk and attention with eager laughter, often a substitute for words. He twisted and pressed his hands together as he tried to find ways of telling, without the necessary vocabulary, what he wanted to share. He would, I thought, love school once he recovered from the shock of finding the world so full of people, especially of other children. He would, at school, be less deprived. Unlike me, however, his teacher would not have much time to watch his hands. Thirty or more other five-year-olds would be needing and demanding her attention and perhaps that of one ancillary helper. This boy might resent school food because he was used to eating what and when he wished, and the food he had was, on the whole, more expensive than school meals can provide. His deprivation had to do with values, not money. Perhaps when the next researcher calls at his school he, like many children I met, will mob her, clutching at an arm or leg to invite attention from her simply because she is adult and human." (p 147)

John was neither mentally retarded nor from a particularly deprived home (socio-economically speaking). But he had been seriously deprived of human interaction. Virtually his sole source of knowledge and learning had been a coloured television. His language development and expression was way below the norm for a 5-year-old.

We may recall the case of Genie the modern day wild child although in some ways these two case studies are not comparable. Curtiss's study is securely embedded in social science theory and method and heavily documented. Dunn's is participant observation, her conclusions drawn from her experience as a teacher. Genie's case is an extreme one in any culture; John's deprivation appears confined to being left alone in front of the television, probably not too unusual. Yet both studies unerringly point, as did Sprigle, to human interaction as the single most important factor in not only language and social competence, but also in Genie's case, to maturation of the left hemisphere.

Dunn's conclusions about the role of human interation in the learning process are of some importance here as she actually watched pre-schoolers watching television in their normal environments. This method could be expected to yield more reliable data than asking mothers or children about their behaviour in front of the box. As we see from the literature on advertising, parents' report and practice are divergent, probably because of the guilt they feel about watching television and giving in to it. (Himmelweit & Swift, 1976).

The other lesson to be learnt from the case study of John is that obviously he had not learnt very much from his five years of television viewing. Colour TV had served as a surrogate mother for this child but at the age of five, he did not know his colours. Almost inevitably, being a teacher, Dunn would have used recall rather than recognition.

She concludes --

> "no television programme with clearly defined educational aims is of any use to children who 'have nothing else'. One of the findings of American research on this programme (Sesame Street) was that children with greatest adult support

> made most progress" (p 15). "What do parents want television to be? If they want it to gag children, it will -- for long periods -- and the chances of its ever doing anything else are minimal. If parents want television to educate, then they must provide a climate in which education happens. Children must be helped to habits relevant to education, the chief of which is wanting to know." (p 30)

This snapshot of John at age five is more properly called a vignette than a case study. It is, however, a concise statement of the fact that children do not learn from television: not facts (colours), nor linguistic and other competencies and adaptations. Bored, he continued to watch, moving only for food but without motivation to explore and manipulate ordinary household objects and substances. While not so dissociated that he didn't welcome human company, John illustrates an extreme of the modern, technologically devised disadvantage trap.

Chapter 6 Validation of ETV's Failure with Children: Re-Centering Other Evidence

The five cases presented here indicate that television is not an educative medium. They suggest that its potential in this regard has been over-rated and oversold by the TV educational, industrial combine which was simply unwilling to believe that their Newtonian assumption of 'one leg good, two legs better'* was not being fulfilled by the accumulating data. If pictures and radio could teach alone, then television had to be twice as good; as films had proven to be. Consequent deterioration in research conceptualization, methods and ethics has been aired as an issue.

But given the widespread belief in the educative powers of 'Sesame Street' and ETV in general, it is perhaps possible that the cases I have selected are chance occurrences, atypical for reasons unknown. In the terms adopted here, ETV has no tangible product. We would expect therefore that learning and education would not be successful via television. The a-conceptual nature of the medium is discussed below. The world of course is one big product to be understood, but not simply picked off a shelf. [illegible]derstanding and ability to manipulate concepts, symbols and materials is measurable, but many psychologists and educationalists forgot the troublesome gap between 'acquisition' and 'performance' (Comstock, 1978) in their enthusiasm for the new medium. They therefore used tests of recognition to measure instruction and performance while they can in reality record only that one has been

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* With apologies to George Orwell and Animal Farm: "Two legs good, four legs better."

informed, made familiar with. 'Facts' then became quasi-products, and successful recognition on multiple choice tests or even more simple formats, was interpreted as evidence of TV's instructive potency. When appropriate tests were used, as by Sprigle and Minton, the mirage disappeared. 'Educational' was the most respectable of all television's guises, which helps to explain why the defence of ETV and television as educational has been so vocal. The two key themes or dimensions underlying this controversy are therefore as we have previewed:

(i) learning as an adaptation depends on active manipulation of the real environment plus face-to-face transactions with spoken language,

(ii) learning, in its sense of understanding rather than familiarization can be adequately measured only by tests which engage recall. Recognition measures only familiarity.

Armed with these very clear and simple distinctions which have not commonly been acknowledged by the TV establishment, including its academic adherents, we may re-examine the mass of literature concerning television as an educational medium. In particular, we will focus on the several peripheral themes covered by the cases; for example, television's role in development for the third world. Our two central dimensions pervade each area of this validation.

Before we embark on this reappraisal let us just remind ourselves that our conceptual base is neither new nor radical. As early as 1958 the British study Television and the Child was drawing attention to the fact that:

> "television may give children a sense of familiarity even when it does not instruct (p 265) . . . the lack of gains in current affairs is unexpected, since television excels in providing this type of information (p 272) . . . Television it seems, does not increase the children's breadth of knowledge (p 277) . . . Television appears to be more of a

> hindrance than a help to the brighter children in both age groups." (p 308) (Himmelweit et al, 1958, my emphasis)

Accelerating misunderstanding and/or neglect of these dimensions has caused confusion in researchers and the consequent literature, and provided a loophole through which the Stanford Institute and the CTW, for example, have been able to insist that children do learn from their educational TV.

We confine ourself here, with one exception, to children's learning. A further validation of the basic framework in terms of adult learning or education is the subject matter of the next chapter.

1. Confusion Reigns: A Failure of Conceptualization.

It is the failure to distinguish between 'knowledge of' and 'knowledge about' which has produced some of the strangest reactions and juxtapositions of data and conclusions in probably any body of social science literature. Because so many reasoned on the Newtonian assumption that audio-visual must be twice as effective as either on its own, television has had a peculiar power to induce hope and optimism about its ability to educate, despite the growing evidence that it is not an effective medium in this regard. Without a systems approach, the result was a set of massive contradictions which rendered the task of clarification of formative factors extremely difficult if not impossible. Consider this quite remarkable statement"

> "P.S. I realize there is something self-contradictory not to say schizophrenic in this paper, which on the one hand details the hopeless unfitness of American television for the work of serious thinkers, and on the other begs the serious thinker to make greater use of it. But the contradiction exists in my own mind as well, and it would be deceptive to try to edit it our here. D.L." (Littlejohn, 1975, p 79)

Indeed I would agree that he has made a brilliant analysis of the total failure of television as an educative medium and its outstanding success as "an almost Huxleyan tranquillizing function" and as an illusion maker; "TV has become reality for many people . . . (reducing) one's ability to make his own world, to judge, select and participate."

Another victim is Harvey Lesser, 1977, who has reviewed in great detail the literature on television as an educative medium for young children and analyzed the way in which current knowledge of child development reinforces the experimental evidence he quotes for television's failure. His statement:

> "However, the type of active engagement possible through television is particularly limiting given the special nature of pre-schoolers' reasoning abilities. The importance of active engagement at a physical level with immediate feedback for correct solutions has been isolated as extremely important in the instruction of pre-schoolers. There seems to be no way of avoiding this unpalatable fact." (p 152, emphasis is mine.)

is entirely appropriate given the evidence he has produced.

He has drawn his data from many countries, including the USSR, and many varieties of empirical method. Of most value here are the controlled experimental studies measuring a range of pre-and post-skills and abilities including IQ. Sprigle is a key witness, having done one of the few such controlled studies. (p 82) There are others. "Appalachia Educational Laboratory finds instructional television, by itself, insufficient to improve the educational and social-affective development of Appalachia's poor." (p 84) "The ECE (Early Childhood Education Program) . . . found that . . . Educational TV, by itself, produced significantly lower cognitive attainments than those measured in the groups who were additionally exposed to mobile van instruction and home

visitors." (p 122) He concluded "It has not been established that unaided television viewing can teach young children. This important fact is amply documented in this book." (p lx)

Lesser then devotes the last third of his book to outlining ways in which television may be used to greater educational advantage. This section is interspersed with such comments as "Television's primary emphasis on the visual makes it an ideal medium for teaching children how to solve problems presented to them visually" (p 203) At least Littlejohn had become conscious of his schizophrenic reaction!

Even Gwen Dunn who gave us the case study of John provides some other memorable conclusions:

> "Of course, some children make and do because they have learnt the habit. But they do not learn it from television, they learn it from mothers." (p 52) "Children learn by recognizing what they know or nearly know -- and sometimes gain a little new knowledge . . . reinforcement, though feebler and slower than it need be, is probably happening, but new learning has little chance." (p 121) "I found support for the view I had reached that children listened very little and got most from seeing, recognizing and reinforcing." (pp 54-55)
>
> "Television can and does stimulate children's interest but it cannot make them speak unless they are used to speech and to being listened to." (p 31) "Children learn by doing. Do they participate while viewing? There were excellent opportunities for joining in programmes that I watched . . . It seemed all the more wasteful therefore that I saw practically no participation." (p 51) "There are two exceptions to the general lack of participation. One is laughter . . . The other is movement prompted by music . . . However, for what I most often saw, 'participation' is too strong a word." (p 53) "One of my greatest surprises was the stillness of many three-and four-year olds . . . What I should like to know is why a child of three, growing and experimenting with body movements, sits still for fifteen or twenty minutes until a touch reminds him of himself and the room he is in." (p 90-92) "Despite the delight children get from listening to their own voices saying a word, I did not hear a child repeat a new word he was told in a programme." (p 93) "The passivity is a fact, at least among the children

> I saw." (p 148) From her work with senior high school girls -- "Sixty-four percent said, 'I find that once I start watching television I go on watching even though I don't really want to.'" (p 150) The Plug-In Drug!

Dunn asked herself the question "Can television programmes help little children to learn their own language?" Her general answer was "Yes, but the qualifications are many and very important." (p 13) Her qualifications include "What is important is to know that learning, say, 'm' and its name is not necessarily the beginning of literacy." (p 15) "Word recognition in itself need add so little to life that it is not worth the cost of television programmes to teach it." (p 16) "Thus reading readiness is not an easy stage to achieve. A child's ability to repeat symbols learnt by rote from television, however satisfying to some adults, does not indicate that he has reached it." (p 21)

She emphasizes throughout her study the fact that children must practic speech and be listened to, if they are to genuinely grasp the nature of their language. Bruner and others have made the same point (Emery & Emery, 1975) "How far the lack of practice in speech is due to the general habit of television-watching by parents, I do not know . . . Television's great inadequacy as a teacher is, of course, that it cannot listen." (Dunn, p 27)

Dunn also surveyed pre-school teachers of television viewing children"

> "None of the teachers separated cognitive from affective areas of learning in their thinking because in practice, certainly with the age group under discussion, it is impossible. They expect to teach the skills of reading and handling numbers. What they were often amazed and frustrated by was a child's lack of experience of ordinary things. You cannot read 'garden' with purpose if you do not know what a garden is." (p 76) "Forty-five out of fifty schools said that children's lack of vocabulary held up their progress." (p 76) "I found that many teachers held the view I was coming to myself, that children had learnt from television to ignore the human voice . . . 'some can't listen to stories even though they want to' . . . what I believe I find is a

> group of children, who are neither discourteous nor disobedient, but simply not alert to human signals." (p 85) "Most (teachers) thought that 'switching off' attention happens more readily and more often than before." (p 85)

To her basic question "do children learn from television?" she then gives the answer "Yes, they do. This is one of the few categorical answers I am able to give." (p 44) But this statement is contrary to her evidence.

Anderson et al (1979) have re-analyzed data from 695 kindergarten-aged children randomly selected from five areas of the USA. Achievement was all by recognition as the original analysis was an evaluation of 'Sesame Street' with its tests. They concluded: "it appears as if 'Sesame Street' alone will not be particularly useful in closing gaps between children of different social classes." (p 76) They continue

> "Allowing for the possibility that both Sprigle and Educational Testing Service are correct in their assessment of 'Sesame Street', we are forced to conclude that a suitably designed teacher-television mix might be more effective than either teacher or television alone." (Anderson et al, 1979, p 78, my emphasis)

But as we saw from Sprigle himself, his experimental group did have the teacher-television mix specially designed for 'Sesame Street'. Their compromise solution turns out to be another vain hope.

These examples by no means constitute all the evidence of confusion in the literature. The Australian Royal Commission on Human Relationships, in spite of the negative evidence they quote, "agree with Dr. Edgar that television is probably the most unused resource available to society for reform" (p 16 of Vol. 2). They are however, perhaps sufficient to document the phenomenon and open the door to a more systemic and precise picture of television's effects on adaptation at the ontogenetic level. This is provided by the distinction between 'knowledge of' (recognition) and 'knowledge about' (recall). The lack of it has lead to the

schizophrenia about television and its potential. This we see clearly now by examining the data which has been gathered to test the learni from 'Sesame Street'.

Gerald S. Lesser (1975) presents a selection of the evaluative studies of 'Sesame Street'. Each of those mentioned used recognition memory rather than that of recall. The children were required to choose the appropriate symbol from a prepared list, or in some cases, had only to point without using words. (Lesser, 1975, p 216) Madigan and Peterson (1977) found that when children could point to a picture in response to a question they showed an improvement in verbal intelligence, but no improvement was evident when the questions required verbal responses. (p 185)

'Sesame Street' and the tests designed for it have been translated into many languages. There is little point in presenting the mass of data compiled by using these tests as in every culture the results are consistently good. Children have 'learnt' from watching 'Sesame Street'. A typical example is provided by Diaz-Guerrero et al (1974). They show conclusively that Mexican pre-schoolers 'learnt' a range of material and skills as measured by nine separate tests. "Most of the tests were translated and adapted from similar tests developed by the Educational Testing Service for use in its evaluation of 'Sesame Street'" (p 633). When these tests are examined we find that only one of the nine contains tests of recall, and this is only partially so. The other eight are strictly tests of recognition. We cannot conclude from this data that the children in the experimental condition were any better able than t controls to remember or manipulate the information and concepts presented in 'Plaza Sesamo'.

Others have similarly noticed that the evaluation procedures "are of the recognition type, with little testing of comprehension, and in many instances the responses do not require verbalization." (Lesser, 1977, p 93). Thus he could grasp the distinction but not its implications for his conclusions above. Rigorous conceptualization within a coherent framework has become such an endangered academic species that useful instances such as that under review have been all but lost from consciousness. Lacking the clarification afforded by the concepts of knowledge 'of' and 'about', Harvey Lesser and the others reviewed here are drawn into an optimistic stance for which there is little base. For the results depend less on programme content and audience characteristics than on the medium and the measuring techniques applied after the event.

The critical difference in results between Sprigle's experiment and the dominant body of literature involving 'Sesame Street' is that Sprigle used tests which genuinely measured understanding. It is the recognition test loophole which allows Lesser of CTW to state in 1979, after all the re-analyses and their damning conclusions --

> "One of the hard pieces of evidence we found is that this deficit (of disadvantaged children) is cut sharply for those kids who watch Sesame Street. They learn about five times faster than non-Sesame watchers. When they get to school, t achers find them more ready than other kids from their neighbourhood schools to learn the basic skills." (Blazey, 1979).

This set of five cases has illustrated clearly the pattern of diminishing returns from the use of ETV as education moves from the earlier to higher grades. The pattern is highly correlated with the shift towards more abstract, conceptual material and analysis, with increasing age, literacy and numeracy. At the core of the ETV problem as Sprigle showed, is the fact that disadvantaged children simply do not acquire concepts unless

specialized attention and care is provided, and this must be of a person-to-person 'doing' nature.

Postman (1983) has isolated five characteristics of television as a curriculum, relentlessly influencing mind and character. These characteristics exercise specific cognitive predispositions antagonistic to the goals of education. Television is above all analogic, nondiscursive, not read and anti-conceptual. Postman asks 'may not a word be worth a thousand pictures?' as words are creations of the imagination in a way that a picture cannot be. As discussed in Part I, the answer is almost certainly 'yes'; it is consciousness, spoken language and its evolution into literacy which are "entirely responsible for whatever intellectual superiority we may claim to have over baboons . . . The science of astrophysics, being little else but a linguistic construct, does not play well on television" which is why Cosmos features "Carl Sagan riding a bicycle" (Postman, 1983, p 312).

Fowles (1977) begins her argument for ETV with assertions that television is uniquely able to provide exposure to concepts. "It can gather together in time and space more examples of a given concept than a child would naturally encounter in months" (91). And because the television world is a limited, highly controlled and non-random one, many of the ordinary obstacles to learning are removed. In this analysis Fowles displays a fundamental misunderstanding of "conceptual" and its distinction from iconic (Ackoff & Emery, 1972). Fowles understands the difference between content and structure or form, and argues that the reason 'Sesame Street' is educational while the 'Roadrunner' is not involves content (1977, p 94-5). Postman argues from Arnheim that it is print which is content oriented and that "an education dominated by

concrete, dynamic visual images must weaken the abstracting powers of youth and erode their abilities in all modes of digital symbolism -- that is, in all modes of conceptual thinking." (as above, p 312) Fowles claims that it is the critical ability of television, particularly through the form of animation, to render many abstract concepts concrete and visual. This makes them therefore, accessible to those with minimal linguistic skill, "who are not generally able to function at an abstract level" and this aids the young disadvantaged (p 98). Postman points out that this form is nonpropositional and irrefutable, precluding critical analysis in favour of visceral response. On top of this, he adds easy--"watching television requires no skills and develops no skills. This is why you will never hear of courses in remedial televiewing" (p 313). Fowles attempts to argue that the child learns conventions such as "sound effects signal a point of high visual information content" (p 94) but she gives no references for any of this set of points. She is in fact arguing from tacit but wrong assumptions.

Postman's fourth point is that television is nearly always entertaining; material is unsuitable when it is not entertaining "which is another way of saying that television is an attention-centered curriculum". (p 373) Producers and fellow travellers on 'Sesame Street' have of course ade this a central feature of their advocacy -- education does not have to be painful. But as Postman points out, the lesson learnt is that learning and entertainment are indistinguishable (p 313) which is different, and increasingly poses difficulties for teachers who cannot either emulate the stars or intersperse their presentations wtih a string of jumpy commercials.

Postman's final point is yet another widely noted aspect of this phenomenon, the fragmented and discontinuous nature of TV as curriculu -- "there is no theme or coherence or order to what is presented" (p 314). In distinction to the printing press which links the individual present with forever (Postman, 1982, p 21) emphasizing the time-binding human potential, the television is now, cutting the links between past and future. (p 113)

> "The TV curriculum embodies a clear and powerful philosophy concerning the nature of reality. Its axioms include that history is bunk, that hierarchies are arbitrary, that problems have no antecedents, that the future is not worth dwelling upon, that randomness is uncontrollable. I believe the word . . . in philosophical discourse is nihilism. In aesthetic discourse, the word is Dadaism. In psychiatric circles it is known as chronic depression." (p 314)

In short, Postman sees television as hostile to language, conceptualization, intellectual development and social order.

For all her advocacy of ETV, Fowles bends to research and reality by concluding that television has limitations. It "is not a truly linguistic medium . . .(and) language appears to be important . . . for the mental organization, storage (sic) and manipulation of concepts." (p 98-9) Finally, "the growth of language depends on the presence of social consequences for speech acts . . . the egocentric child may try to talk with the TV set, but eventually he will stop. Singing along and similar behaviors may continue, but what is acquired in this way is not linguistically productive." (p 100-101) But despite her arguments that adequate levels of spoken transaction within the family or human group are essential for intellectual development, Fowles concludes that we "might more aptly think of television as all mind and no heart . . . we ought not be sanguine about its use as a baby sitter . . . Language is

only an example of many functions that require real social interaction for their development." She maintains to the end that intellectual and social development are "quite separate" for "young children" but clearly by implication, television accelerates the former while it impedes the latter. Only rigid adherence to the assumptions of the first educational paradigm could fuel such a perspective which is at odds with many data. Better supported is the view that "if the TV curriculum has ... an organising principle, it is merely the immediate, short-term psychological gratification of the student". (Postman, 1983, p 314) As we see in the next part, there is evidence at the short-term level of directive correlation for such an organizing or system principle.

The evidence surveyed here would support the clear analysis and conclusion made by Postman and the many others who have protested, argued and been beaten down by the voluminous weight of recognition data, peddled unthinkingly by educationalists wedded to the scientism-technocratic paradigm.

2. Sesame Street

(i) The Appeal

Jerry Mander's inside knowledge of the industry is particularly relevant here. Arguing that (U.S.) public television is bound by the same technological limits as commercial stations, he says

> "The best proof can be found in the most successful public television shows . . . It is not well enough appreciated, I think, that 'Sesame Street' was conceived, designed and executed from its inception by ex-advertising people. Using every technique they learned in advertising -- rapid cutting, interspersing of songs and cartoons, very short time spans -- their show has been found more 'interesting' than any public TV program that preceded it. This 'interest' is based on technique and these are the same techniques used in advertising." (Mander, 1978, p 310)

This was part of the "conservative" nature of 'Sesame Street'; "its goals were educational and it employed current commercial production techniques to achieve them". (Polsky, 1974, p 90) Story reading was originally thought to have great appeal but the first season's "research indicated that it did not attract and hold the children's attention, and so it was gradually removed from the show". (as above, p 43) It was simply too slow relative to the rest of the program.

Huston et al (1981) found that in general, educationally oriented children's programs had relatively low levels of rapid action, music, tempo and visual change, the features which characterize Saturday morning animated shows. The more educational used techniques favouring reflection with the exception of 'visual tricks', but it would also appear in general that little reflection actually takes place. It is also clear from their analysis that 'Sesame Street' is different in technique and pace from a large group of 'educational' programs. They confirm it indirectly with the statement: "Although some programs such as 'Sesame Street,' get fairly large audiences in their target age ranges, the total audience for educational programs is small." (p 47) Perceptual salience is the dimension of production that demands attention and this is all that is required for success in the market place. Huston et al's conclusion is interesting because while they recognize that educational programs do not get the audiences, they would like to see production diversify away from its narrow range of techniques -- the attention grabbers.

> "European productions demonstrate clearly that animation does not by definition require rapid action, rapid tempo, noise, or loud music. Educational programs have utilized a combination of interesting audio-visual techniques with features that allow for reflection and comprehension of content. But American commmercial producers have found a formula that works, and they rarely depart from it. Our analysis makes it clear that this formula is defined by

formal production features as much as or more than by content." (as above)

The point is precisely that the American commercial formula works, and that is why 'Sesame Street' has the audience and the rave reviews.

(ii) Mothers and 'Sesame Street'

All five of the cases but particularly the last two have made the point that learning is a function of human life and environment; mediated by air rather than by CRT technology. Does the CTW in fact agree with the conclusion quoted by Dunn that 'Sesame Street' depends for its effect on face-to-face interaction with the mother or human surrogate? They do, but somewhat obtusely. In the developmental stage there were proposals for accompanying 'at-home projects' but they never materialized, reflecting perhaps "Mrs Cooney's opinion that the television series had to stand by itself; she felt it could not and should not depend upon the introduction of manipulative materials". (Polsky 1974, p 43) The ETS discovered however, that co-viewing with the mother increased learning and this was due to the mother talking about the show and reading more often to their children. (Polsky, 1974, p 94) Capitalizing on this finding, the CTW began its most ambitious project called 'The Sesame Street Mothers Project.' "It helps parents to work with their children, and perhaps with others, to reinforce and expand upon the lessons provided by Sesame Street. It builds upon the most powerful resource available to young children -- their parents' interest in them." (Lesser, 1975, p 209) "At the same time, the value of an interested adult watching with the child was apparent. Among the disadvantaged children who watched regularly at home, for example, those who gained most had mothers who often watched the show with them and talked with them about it". (as above, p 220) In Australia in 1979, Lesser noted that "children

learned most when parents and older children watched with them". (Blazey, 1979) He continued however to make the same claims for the programme itself.

Cook et al (1975) in their re-analysis of the value of 'Sesame Street' also examined the effects of 'encouragement'. "Encouragement-to-view ... had more desirable consequences than viewing 'Sesame Street'." They discuss the possibilities leading to this and conclude that it may be due to "establishing social relationships ... These last possibilities involve face-to-face rather than television-mediated processes and, as such, they take 'Sesame Street' out of the technological arena of mediated, focussed, and entertaining instruction and put it back into the traditional arena of learning caused by face-to-face interaction with other persons." (Cook et al, 1975, p 24)

The effects of mother and children viewing together has been directly tested in Israel:

> "Encouraging parents to watch the program with their children made a large contribution to low SES children's amount of viewing, enjoyment and comprehension. This manipulation had no effect on middle class children. Nor did encouraging parents have a direct effect on learning from the show." (Salomon et al 1972, p 3)

The experiment was replicated with additional insights by Salomon, 1977. Encouragement by the mothers to co-observe again had a relatively strong but indirect effect on the recognition scores in the lower class group but not in the middle class. The greatest effect was on degree of enjoyment. Salomon considered the most likely interpretation of this difference concerns the sheer presence of the mother as a non-specific energizer. Presumably the working class mothers had more often employed

TV simply as a baby-sitter; "many mothers complained that co-observing . . . interfered with their routine". (p 1147) The presence of the mother had an influence which is directly predictable from the Coleman study and our previous discussion of adaptation; it was an energizer and motivator, two things that television appears not to be. (Emery & Emery, 1976) Similarly, they confirm that emotional and conversational neglect is the essence of childhood deprivation, more commonly found in working class than middle class homes. But as Salomon used the standard recognition tests devised for 'Sesame Street' by the ETS, we are left wondering if the combined effect of viewing and mother's participation resulted in learning which could be recalled and manipulated. Sprigle's treatment group also had follow-up exercises with a teacher, but this was not sufficient to remove the learning gap between that group and the control without 'Sesame Street'.

Sproull (1973) also studied children viewing 'Sesame Street' in groups and alone. Group viewing produced more eye contact, more modeling behaviours, both verbal and non-verbal, more smiles and laughs, more direct program reactions and more yawns. Individual viewing produced more non-viewing behaviours, greater mobility on and off chair, and movement in time to music or countdown. The study confirmed the attention holding nature of the medium with even the most talkative child watching over 60% of the programme; the mean was 80%.

> "This finding may lead to a tentative explanation regarding parents and other observers of children who say that children do not watch television even when exposed to it. It is possible that these people observe the large number of nonviewing behaviours and the high mobility exhibited by children while viewing, overestimate the time consumed by the nonviewing behaviours, do not recognize the amount of mobility children can display while still viewing television, and consequently underestimate the time children have actual eye contact with television." (p 131)

When tested in the post-viewing play periods, however, for signs of learning, Sproull found that there was no difference between the gro viewers' play before and after 'Sesame Street'. "These findings were contrary to the expectation that viewing the 'Sesame Street' programs would increase the use of these (letters and numbers) in post-viewing play." (p 111) Obviously there was no learning despite the 'modeling' behaviours during viewing. Sproull contends that the sometimes chaotic interaction of the eight children during the play period was an interfering factor and that this also helps explain the slightly greater frequency with which the individual viewers used the letters and numbers during play. As the testing situation was therefore considered inappropriate, this difference was <u>not</u> tested for significance. (p 112) Working from both the means and the medians with Chi Square we find that the difference is not significant. In other words, neither the group nor the individual viewers demonstrated any transfer from viewing to behaviour. This direct behavioural test shows very different results from those employing recognition.

Additionally, we note that if talking and playing are adaptive learning behaviours as we claim, then the group viewers may well have learnt something by simply being together. The individual viewers did not even have this. The increased degree of rhythmical physical movement by the lone viewers is also consistent with Gadberry's (1974) observations of increased self-stimulation when children viewed rather than played.

Sproull's conclusion however, was that

> "The greater amount of modeling, amusement, and verbalization of group viewers compared with single viewers would seem to support the Sesame Street producers setting up group viewing centers to enhance their targeted learning. However, the finding that single viewers used the "6" and the "0" in post-viewing play <u>more often</u> than group viewers may indicate the

> need for more comprehensive research on group versus single viewing." (p 113, with added emphasis)

But she didn't test it! I have, and it wasn't significant.

She adds "Television is a commanding medium and thus is a most appropriate tool to help individuals learn" (as above).

Throughout this pro-television body of literature we find a reluctance to confront the fact that children learn from other people while actively engaging with the environment, or echoniche. When gains have been recorded during adult-children co-viewing, they have been put down to mothers or teachers, 'helping their children learn from television'. The rather more obvious, common sense interpretation is that what the children learnt was from the accompanying humans, despite the difficulties caused by attentiveness to the TV. When children view alone, as we saw from the case of John, the results are dreadful. Parents, sibs, peers and teachers mediate the effect. In middle class homes where language and social competencies are well established, co-viewing has less effect than in working class. But in both, evidence has been evinced as to television's positive effects. The dimension of the primacy of human communication has escaped critical analysis. Continually, it becomes clear that it is not television that teaches; the most 'successful' ETV programme in the world (Sesame Street) needed mothers in order for it to be understood and therefore remembered. Given even measurement by recognition, there is still a clear effect which derives from the human dimension alone.

This is one of the most misleading aspects of the published 'Sesame Street' research. Together with the refusal to distinguish betw recognition and recall, it marks the systemic failure of advocates to establish that their course is in any way separate from, or better than, the normal haphazard day-to-day adaptive life and learning of most children.

3. At Home and Incidental Learning

One study which claims to show TV's educational effect at home is that by Atkin & Gantz (1978) who specifically explored the political socialization of children by watching the news at home. Fourth and fifth grade students were given a recall test while younger children completed an abbreviated recognition version of the instrument. Key dimensions measured were political knowledge and discussion with parents around the news content. The findings "indicate a consistently positive relationship between viewing television news and knowing political information (although the strength of association is not impressive for younger children)" (p 191) despite the fact that their test employed recognition. Concerned to show causality, Atkin & Gantz used a cross-lagged correlation technique which showed firstly that television news viewing causes politi al knowledge and secondly, that while news viewing does not cause discussion, discussion causes viewing. (p 193-4) Also, "it was difficult to infer causality . . . between news exposure and political interest." (p 194)

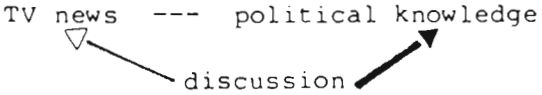
On the surface it would appear therefore that news viewing by childrer increases their potential to be well informed citizens. The critic relation in this study however, was neglected. Our theory would suggest

that a significant relation would exist between discussion and political knowledge. Atkins & Gantz provide

TV news ⟶ political knowledge

TV news ⟵ discussion

but there is no mention of the configuration:



Their data indicates, as we would expect, that discussion is a causal agent; it is entirely predictable that discussion rather than TV news will be found to be the stronger influence on political knowledge. The correlations which provide Atkins & Gantz with their conclusion are only marginally significant and "previously knowledgeable children do not necessarily seek out news programming" (p 195). The most probable causal interrelation therefore, is that shown by the arrows above with the causal link TV----▷ knowledge, being a secondary effect of discussion.

Children's learning from general television at home which would normally include some proportion of children's ETV, plus some of the 'informative' adult programs, has also been found to be disappointingly negative. In comparison of children in Teletown and Controltown in 1961, Schramm et al found that over all six tests used there were no differences. ! wever, when the results were broken down by grade and intelligence, over 60 percent of the comparisons favoured Controltown.

Difference in vocabulary for first grade children, as measured by the Stanford-Binet, showed that high and low IQ children in Teletown had more comprehensive vocabularies than those in Controltown, but the great majority of average children displayed no difference. Having then devised their own "special vocabulary" test, "made up of five words they

might be particularly likely to encounter on television", almost certainly administered via recognition, they found "a significa difference in favour of the Teletown children among the lowest intelligence group" (p 92). In other words, even with their special, oversimplified vocabulary test, they could not find significant differences between the majority of children in Tele- and Controltown.

Moving up the educational ladder we find that "Except for one tie all the comparisons in the sixth grade are in favor of Controltown. All the comparisons on the science test, when there is a difference, are in favour of Controltown." (p 94) Teletown children however, were better able to name singers and dance band leaders while controltown children were more able to name writers, rulers and statesmen. While Schramm et al do not mention the form of the tests,it is obvious that children learn something from domestic television, but it is not necessarily the type knowledge to ensure a broad vision or competent citizenship. As we explore in more detail below, the medium encourages interest only in its own narrow world of fantasy and entertainment. That Schramm et al can say that "television does apparently send children off to a faster start" is a fair indication that recognition tests predominated during the younger years. The team concluded that there were implications for public policy but they had no intention of developing those implications there. Instead they raise questions as to why these young minds are not gaining from the "informative resources" available (p 96). The implication of their answer is that if only parents and children could be persuaded to watch ETV rather than the commercial, then the results would be more positive. But that of course is history.

A Canadian study compared three towns, Notel (no channel), Unitel (one channel) and Multitel (four channels). "Before television came to Notel, the children in the second and third grades had higher reading scores than those in Unitel, who in turn were higher than the Multitel children. But two years after Notel had television, the higher scores for its second and third graders were gone." (MIMH, 1982, p 80) Notel's children's verbal fluency scores on standardised tests also decreased significantly and it was apparent that TV was having a negative impact on the children's verbal fluency and creativeness (National Institute of Mental Health, 1982, p 46). The U.S. National Institute of Mental Health also summarizes the literature between 1972-82 (p 79-80). Of the eight reports they cite, one in Venezuela showed an improvement with TV in the home, one in Finland found no difference in vocabulary and the six others noted various decrements in achievement after the introduction of television.

This yields a pattern of +TV (1): n.s.(1): -TV(6) with a consequent net effectiveness index of -0.63. However measured, the relationship always appears to have a minus sign in front of it.

An Australian control-town study, while not measuring learning, claims to have demonstrated a recovery effect from the initial impact of television on other leisure activities. Murray & Kippax (1978) studied High TV Town which had five years experience with ABC and a commercial channel, Low-TV town with one year's experience with ABC only, and No-TV town. The children were 8-12 years old. Continuing depressed levels of watching sport, outdoor activities and reading comics were associated with watching TV. Increased activities accompanying television were playing with friends and toys, reading books, hobbies and sitting around doing

nothing. Decreases in a wide range of social activities, use of alternative media and pursuit of individual interests were noted betwe No-TV and Low-TV towns but not between No-TV and High-TV towns. Thus the authors conclude that there is a 'novelty effect'. The overall conclusion must be therefore that "television, although an initial displacer of social engagement, may ultimately foster increased interpersonal contact by serving as a focal point for shared activities." (p 28)

Now let us apply a simple validation or credibility test to this data. There are 168 hours in a week and Murray & Kippax give for each town the number of hours per week quoted for each activity. We estimate nine hours sleep per night which is 63.00 h.p. week, six hours school per day which accounts for 30.00 h.p. week, and two hours per day of 'committed' time which includes washing, travelling to school, doing chores, etc. This yields a total committed time estimate of 107.00 hours per week for each of the three towns. This leaves 61.00 hours per week available for leisure pursuits. We may then compare the data collected by Murray & Kippax with the expected time available. (Table 6.1)

The High-TV town sample overestimated its total leisure time activities ($x^2 = 4.23$, $p < .05$) while Low- and No-TV town samples did not ($x^2 = 0.10$ and 0.55 respectively). As we are told (p 31) that there was no difference in the amount of viewing of the children in High-TV and Low-TV towns and there couldn't be in Table 6.1 any difference in committed time, we can only conclude that High-TV Town overestimated its activities other than television. Whether due to the guilt associated with hea viewing (Himmelweit & Swift, 1976, discussed below) or from some generalized loss of ability to accurately perceive time associated with

Table 6.1

Validation of Leisure Patterns for Three Towns

(Hours per Week)

	High-TV Town	Low-TV Town	No-TV Town
Total Committed Time	107.00	107.00	107.00
Leaves for Leisure (Expected)	61.00	61.00	61.00
Claimed Leisure other than TV (from Table 3, p 36)	54.13	40.53	55.22
Average Viewing*	22.93	22.93	0.00
Total Leisure (Observed)	77.06	63.46	55.22

*This is a weighted mean calculated from p 31-32. 60% watched 3+ hours per day; 30% watched 1-2 hours per day. Formula applied as follows:

60% : 4 x 5 (weekdays) + 5 x 2 (weekend) = 180.0
30% : 1.7 x 5 " + 2.7 x 2 " = 41.7
10% : 0.8 x 5 " + 1.8 x 2 " = 7.6

Resulting weekly mean viewing is a reasonable estimate for Australian children

television, these figures cast severe doubts about Murray & Kippax's "recovery" from television's impact on active leisure. Given what we have come to know of the grip of commercial rather than public TV, it is also possible that heavy-TV viewers underestimated their total viewing hours relative to Low-TV town which would render their estimates for other activities even more suspect. Support for this comes from the authors themselves. "Although children in the two television towns watched television equally often, those in the Low-TV town viewed for a shorter duration of time." (p 37) In other words, the High-TV town children were watching more hours a week than the town with only ABC. My formula has tended therefore to reduce the difference between High- and Low- town viewing and simultaneously diminish the overestimate of other activities.

Why did Murray & Kippax not report actual viewing hours? Even allowing that some viewing could be cutting into, or be done concomitantly with proportion of committed activities, would not appreciably change this picture as radio and record listening, talking to friends etc., can also be carried out concurrently. We must therefore reject Murray and Kippax's conclusion and hypothesis.

As there was no recovery after five years and Teletown children in general appear to go downhill in achievement relative to Control-town children, we can confidently assume that if Murray & Kippax had measured educational achievement by methods of recall, a small decrement for High-TV town children would already have become apparent despite the fact that news viewing was increasing. This is more an index of indiscriminate viewing and lack of parental control than an educational activity, as above. There was already evidence of dissociation.

Morgan & Gross (1980) have concluded that their study "hardly suggests that television serves to improve the academic achievement of most children, nor, however, does it support the most dramatic claims of television's disastrous effects on academic performance." (p 131) Viewing and IQ continue to be inversely related even when all demographics are controlled but the relation is much stronger for boys than girls. High IQ girls watch more than high IQ boys which parallels the findings for SES. Heavy viewing very often cuts across all social status, aptitude and family structure variables suggesting that another variable such as personality is also at work here, and this is explored below. Even when IQ is controlled, significant negative correlations persist between reading comprehension and total scores, and language usage and structure. But it is high IQ students of both sexes who suffer

most from the inroads of heavy viewing on reading and language ability. In particular, heavy viewing is associated with relatively higher reading scores for girls with lower IQs. Their primary finding is that IQ accounts for most observed relationships between viewing and achievement, and the set of interactions is not random but highly systematic. The dominant exception to this is reading comprehension which is related to viewing over and above the effects of IQ. While Morgan & Gross do not mention it, the reading result for heavy TV, low IQ girls could be due to another result that they themselves found; that heavy viewing leads to more reading but less comprehension. (Morgan, 1980) I discuss this below together with other data which show that heavy viewers read intellectually less demanding material. There seems to be a discrepancy between these two papers by Morgan which could possibly be resolved if the total correlation matrix was presented. Taking a handful of variables out of a matrix cannot hope to give a comprehensive picture when interrelations are widespread and complex. A final conclusion about TV, IQ, reading and achievement will have to await such an analysis but in the meantime the circumstantial evidence against television as an educational medium is mounting.

Williams et al have recently (1982) synthesized most of the literature on leisure-time television and school achievement. Their search and selection procedure yielded 274 effects from 23 studies and a total student population of 87,025. The date of studies range from 1954 to 1980. Correlation analysis was used. Only seven of the studies reported actual correlations and estimates of the rest were made with various conversion formulas. Overall, the results are provided in Table 6.2.

Table 6.2

Correlation between Television & School Performance
(from Williams et al, 1982, p 23)

	No. of Studies	%	No. of Correlations	%
Positive	3	13	95	34
Zero	2	9		
Negative	18	78	182	66

Mean r = -0.05

Using the same index of net effectiveness we find from the number of studies given as positive, zero and negative a net effect of -0.65. The difference between this body of evidence and that of ETV specifically is the much greater proportion of studies which report negative rather than non-significant effects.

The authors conclude that televiewing is "neither the 'villain' nor th 'redeemer' some have claimed." (p 35). While Williams et al do provide abstracts of the studies used, they do not include mention of recognition or recall. This combined with the estimating techniques must raise doubts about the size of the effect. Only three of the coded variables proved significant to the effect, of which the strongest by far was mean viewing hours per week. It appeared that up to 10 hours per week watching television had a small positive effect on achievement but more than this caused a rapid deterioration in scores. Females were affected more than males, in the range of 15 to 30 hours. The only other interacting variable was IQ and this synthesis suggested that TV had a greater impact on achievement for high IQ students. Curvilinear relations and IQ are discussed inconclusively by NIMH (1982, p 80).

Such a synthesis is valuable and should dispell any lingering notions that a television diet at home is educational or contributing to overall school performance. It complements the data compiled around the effects of specifically instructional television.

4. The Growth of Imagination and Creativity

Sprigle also raised the important question of imagination as a critical element of growth and development. Individual human development is far too often assumed to be a purely 'cognitive' matter of absorbing and regurgitating 'facts' although as we have seen, television is only minimally effective even at this most fragmentary level. Such a primitive empiricist perspective has been rejected by the Singer team at Yale University who have investigated the TV-imagination relation within a longitudinal study of cognitive and emotional development. Earlier papers (e.g. Singer & Singer, 1976) evinced a belief that exposure to shows such as 'Misterogers' Neighborhood' would enhance the spontaneous imaginative play of children and would also perhaps increase the level of positive effect in play; that is that television can serve prosocial ends.

However, later papers written after years of progressive data accumulated were less optimistic as they reported increasingly negative effects of television on developmental variables and behaviour. Singer & Singer (1980) found a factor of 'playfulness', essentially indexing a happy, friendly and imaginative child, which showed no relationship to television; and a factor of 'aggression-action television-viewing'. Categories of content implicated here were action-adventure shows and game shows. (p 297) Statistical analysis suggested that background variables of IQ, SES, sex and ethnicity are critical determinants of the

link between aggression and action-television viewing (p 299) and that the causal sequence was TV towards behaviour. (p 300) Heavy viewing 'Sesame Street' was the best single predictor of aggression three months later. (p 300) Analysis also ruled out the argument that aggressive children prefer violent programming. Gunter, 1983, has similarly cast doubt on this reasoning.

Comparing 'Sesame Street' with the slower 'Mr Rogers' Neighborhood' on attention and 'recognition memory' Singer (1980) reported that children were more attentive to 'Sesame Street' but 'Mr Rogers' had the advantage in learning. "Even for recognition memory, which is the easiest type of measure, those children who were less intelligent suffered more from exposure to 'Sesame Street', purportedly designed for the educationally disadvantaged" (p 55). An episode of 'Sesame Street' designed to communicate the concept of deafness 'failed completely' (59/60) to educate its preschooler target audience. The team concludes generally that

(i) children of this age range lack the conceptual schemata and strategies necessary to learn from the television presentations

(ii) the rapid pace does not allow the pauses necessary for reflection and information processing; this applies to self-generated imagination as much as to learning.

Reviewing the empirical literature, the Yale team found that generally viewing was inversely related to measures of imagination and directly related to aggressive behaviour. Heavy viewers also are more likely to confuse reality and fantasy, show poor integration of their use of play materials, and more negative affect. Parents also report more frequ school maladjustment. Noted also are "gross distortions of specific details of outside reality- of so-called 'world knowledge' as a

consequence of TV viewing" (Singer & Singer, in press, p 29) which parallels the Annenberg school's work with adults. There is also precise confirmation from Australian children (Pingree & Hawkins, 1981). Additionally Singer & Singer confirmed "that adults are crucial for children's learning . . . (and) without adult help at home or in the classroom, television as it is presently constituted can become a hazard to children's cognitive development" (as above, p 38).

In their progress report (1982) the Yale team reports the data directly, confirming and elaborating previous findings. This data has been subsequently published (Singer & Singer, 1983). From factor analysis they created a TV-environment variable which included measures of emphasis on television, availability, control etc., as well as viewing per se, and content categorization. It is highly comparable therefore with Emery & Emery's (1980) 'TV Orientation' variable, reported upon below.

Table 6.3 provides a summary of the relation between TV, parental and children's key developmental variables. It illustrates the totally consistent pattern of disadvantaging effects of all the TV variables plus the use of power assertive methods by the parents. We would suspect therefore that homes with a pervasive TV environment are partly the creation of parents who are inclined to be more authoritarian and/or its mirror-image, laissez-faire, (Emery & Emery, 1976, p 109-114) than democratic. The pattern of parental alternation or flicking between laissez-faire and assertion of power would explain perhaps the pattern of inconsistent results for sleeping time. Parents who inclined towards the authoritarian pole may insist on strict bedtimes while not attempting to control programmes viewed, while the more laissez-faire would control

Table 6.3

Relation of TV and Parental Variables to Development*

	Total Weekly TV as Pre-schooler	TV Environment	Realistic Action-Adventure	Power Assertive Methods	Hours*** of Sleep	Value** Resourcefulness
Reading Comprehension	-			-	-	+
Comp of TV Programming		-		-	-	+
Language effectiveness		-				+
Imagination	-	-	-	-		++
Ability to wait	-	-	-			+
Motoric restlessness	+	+	+		-	
Hit 1981 (physical aggression)	+		+	+	-	
Hit 1982			+		-	+
Poor Adjustment		+	+	+	-	
Mean & Scary world		+				+

* Where + means positively correlated; - means inversely correlated

** A + here may indicate either mother or father valuing resourcefulness. Imagination was directly related to both parents' values

*** Reported hours of sleep while strictly a measure of child's behaviour has been included in family variables because it indicates the degree of parental control over viewing (see below)

neither. Unfortunately, Singer et al do not provide a correlation matrix from which we could derive a causal path graph solution which could help resolve this issue.

Valuing resourcefulness which indicates a more democratically oriented, child centred climate, is by far the most interconnected variable within development, particularly of imagination. In this context, its correlation with aggression in 1982 may indicate assertion a self-respect rather than aggression in the negative sense. Its correlation then with perceiving the world as a 'mean and scary place' is

surprising but if Pingree and Hawkins (1981) are correct in pinpointing crime-adventure shows as the cause of this perception in Australia, then it means in the U.S. simply that virtually no child can escape from this perception.

Three other family variables, Structured Daily Routine, Cultural Involvement and Outdoor Activities, showed only a few and inconsistent correlations with development. Again a matrix is required in order to assess their contribution to the overall picture emerging.

In this careful, comprehensive and longitudinal study we find further support for our answers to the questions raised by the cases particularly those of Sprigle and Dunn:

(i) adults are crucial for children's learning

(ii) the simple, a-conceptual nature of recognition is related to previous illustrations of learning gains from 'educational' programs

(iii) "In summary, the data for imagination suggest support for the hypothesis that heavy viewing of television in early childhood may be negatively related to the development of personal inner creativity or self-generated imaginative thought." (Singer et al, 1982, no page no's)

Once again, the cases would appear far from atypical.

5. Viewing Behaviour and Social Competence

Twenty-two boys between four and six years were observed with their mothers while playing and watching television. "Viewing was associated with more sitting, less walking, less talking, fewer attempts to leave

the room, less aggression towards objects, and less maternal interference. There were more self-stimulation and attention shifting in the TV condition" (Gadberry 1976, p 1134). These differences were not small. There was five times as little interaction between mother and child and nine times as much self-stimulation with TV. While self-stimulation during viewing replaced object manipulation in play, Gadberry also found that regular high viewers self-stimulated less frequently than low viewers. In other words, as habituation increases over time, television becomes the only preferred source of stimulation. Gadberry herself states that "use of the television medium may affect parental socialization practices, since less parental interference occurred during viewing, along with less behavior which was potentially reinforceable." Within the disadvantaged family where transactive processes are already inadequate, heavy viewing can only exacerbate the child's difficulties.

Moderate viewing in a home where play between mother and infants is adequate or frequent, is unlikely to effect the elaboration of the rule structures of communication. There will still be sufficient play to draw "the child's attention to communication itself and to the structure of the acts in which communication is taking place." (Bruner, 1975, p 10) As "language is a specialized and conventionalized extension of cooperative action" whose rules are "learnt by analogy with the rules of action and attention" (as above, p 2 and 18) we must necessarily expect that heavy viewing in disadvantaged homes will retard language development.

That is the conclusion of Selnow and Bettinghaus (1982) who tested 93 high SES preschoolers for language development and sophistication.

Despite their advantaged homes and preschools and the fact that they viewed only three fifths of the national average time for their age groups, there was a negative relation between total viewing and langauge competence which just failed to reach significance at $p < .08$.

After showing that five to six month old infants watch television for 49% of the time it is on, and that it influences their visual behaviour in a reliable way, Hollenbeck & Slaby (1979) query the effect it must be having on their ability to learn control over their social environment. Patterned picture and sound elicited greater attention than either picture and sound alone, or an unpatterned control condition of picture and sound. Results on vocalization were less clear cut. The trend was however, that the infants vocalized more during pictures than sound which may reflect what many a mother learns early on, namely that a baby will cease crying at least temporarily if she makes a noise. The ear may enjoy an adaptive edge over the eye as was noted in Part I. As Holenbeck and Slaby point out

> "Infants learn to use contingent looking and vocalizing to elicit responses from adults. Yet, the high level of social control that infants typically attain with their caretakers stands in marked contrast to the complete lack of direct control that infants may achieve over the 'social' stimulation produced by television. The same looking and vocalizing behaviours that serve infants so well while interacting with caretakers are responded to by television's characters, images, and sounds in a completely noncontingent way." (p 45)

Perhaps the answer to the question of what this means in terms of growth and development is given by Dunn (1977, p 85) namely, "children have learnt from TV to ignore the human voice." The implication of this answer is the state of maladaption called dissociation (Emery & Emery, 1976; Emery F. 1977; Emery & Emery, 1979). Heavier viewing youngsters

will have less control over and less competence in their social environment with resulting loss of association.

This is precisely the finding of Burton et al, 1979, who correlated viewing during years 3, 4 and 5 with social integration in first grade. For both dimensions of social integration, i.e. successful association with peers and school achievement, television was the single most powerful predictor of dissociation and poor marks. The sociometric analysis also showed that heavy viewers chose each other as friends. Achievement was measured straight off the first grade report cards as marked by the teacher so that the assessment is of overall understanding and competence. Heavy viewing had disadvantaged the chances of good social integration in first grade and in citing supportive studies, Burton et al note particularly that "the increased contact brought about by television is not social except in the most limited sense: that being in the same room with the other people." (quoted from Maccoby on p 165.) The fact that heavy viewers chose each other and were not chosen as companions by the more competent light viewers suggests an early trend towards two distinct strata of children.

6. Content and Medium

A study by Anderson et al (1981) and paid for by CTW, claims to have established that "there is as yet no evidence that the television medium has any unique control over the young child's attention separate from its content." (p 157) Following previous work which suggested that comprehensibility of the content determined attentiveness, they designed two tests of 'Sesame Street' viewing by young children. In the first attention was higher with immediate than nonimmediate dialogue which supports their hypothesis that dialogue with a referent immediately and

concretely present, should be more comprehensible and therefore draw greater attention than dialogue without such a referent. But the absence of dialogue drew greater attention than the nonimmediate referent segments and as much as the immediate. That is, the children were as attentive to the 'visual only' segments as they were to what was assumed to be the most comprehensible segments. The authors report this, but do not discuss its implications for their hypothesis. The assumption that comprehensibility is highest when both the visual and auditory dimensions are present and matched appears to be wrong, if we follow their logic that comprehensibility and attention are correlated.

Neuman (1980) found that total television viewing was not related to ability to listen, nor was any category of programming including 'educational', with the exception of news and documentaries where the correlation was significantly negative (-0.24, $p < .01$). A more reasonable interpretation of Anderson et al's data would be that attention is determined by the visual dimension, that is the medium, with some forms of spoken language interfering with the level of attention. As they point out the "nonimmediate dialogue often employed more complex linguistic structures and used a more abstract vocabulary that immediate dialogue." (p 154) This could well serve as a distractor because as Salomon et al (1972) noted - "segments of the programme (Sesame Street) which were 'didactic' and had a strong verbal component were associated with the most inattention". (p 2)

In the sections on product marketing and the language of television, we also note that informative ads are irritating and agencies resist the temptation to include information. These data are consistent with the hypothesis ventured here but not with that of the Anderson team. Another

piece of Anderson et al's data also supports our alternative hypothesis. They randomly rearranged scenes within 'Sesame Street' so that th sequence was less meaningful. This led "to little change in visual attention". (p 156) In other words, it didn't matter whether the visual content made sense or not; it was still attended to. Anderson et al explain this by resorting to the argument that each 12 second scene was "individually understandable" and use Collins (1979) to support this argument. Collins et al argue in several papers (1981; & in press) that children do not understand the meaning of much of what passes across their screens. But this certainly doesn't stop them watching it. The Senate Committee (1978) found that some youngsters are watching 80 hours per week.

Bearing this in mind we return to the second study reported by Anderso et al. Realizing that a more convincing demonstration was required (p 154), the dialogue for 'Sesame Street' was interspersed with bits of foreign language and backward playing tape. Attention dropped from normal and 'editing' to foreign and backward dialogue. The authors interpret this as further evidence that comprehensibility is required for attention but it also supports the alternative hypothesis that irritating material which disrupts the flow of the massage will interrupt attentiveness. As Salomon et al (1972) showed, material which demands analysis, cortical rather than simply visual, attention, will break the attentiveness.

Far from proving that Mander, Winn, the Singers and the Emerys are wrong in suggesting that television as <u>medium</u> is playing a critical role in producing its effects, Anderson et al's data actually support the mediumist position. But there is another fundamental difficulty with

these comprehensibility studies and it derives from Sproull's (1973) study. The behaviour of Sproull's experimental children was videotaped while there was no visual record kept by Anderson et al. It is more than possible, given the difference between the impressions gained about attention and the actual eye-TV contact data in Sproull's study, that the Anderson et al observers recorded visual inattention when the children were simply moving around. Sproull showed that children could be quite mobile and yet not lose eye contact with the television. Anderson et al's figures for attention are lower. While Sproull recorded a mean of 80% eye contact from continuous videotaped record, Anderson et al recorded averages of 62 and 75% in the first study and 47% in the second for normal, undistorted 'Sesame Street' viewing. This latter would appear to be very low.

Alexander et al (1981) who specifically investigated different viewing estimation techniques found that both mothers and children gave highly suspect figures. It is a difficult area and the inaccuracy of estimates casts doubts on many studies. However, clear instances of being 'glued to the set' are unmistakable and "Children are already attentive to the television medium as early as 6 to 9 months of age". (Hollenbeck & Slaby, 1979) This fact hat babies do attend for extensive periods of time, of course makes nonsense of the hypothesis that comprehensibility determines viewing. Should further evidence of this be required, it is to be found in the work of the Collins' team at the University of Minnesota. A major part of their effort has been directed toward devising intervention strategies which will help young children make sense of television's content. "Improved comprehension does <u>not</u> appear to be due only to improved attention to relevant program content". (Collins et al, 1981, p 161) In this report, facilitating comments designed to make explicit

relationships between actions and therefore motives and other inferences, increased children's knowledge of the content that was directly noted It "did not affect general comprehension of the program, although a more general effect of this sort had been expected". (p 161) And the tests used were a simple recognition form.

In a study of 'Captain Kangaroo' designed to teach about the sense of smell, Friedlander et al (1974) tested 31 4- and 5-year old children for comprehension. Each child was asked 20 simple recall questions of action, understanding and asides, with prompting to ensure that the children were giving as much information as they had. The mean comprehension score was 44.5%, the median was 42.5%. "In other words, more than half of these children failed to demonstrate comprehension of more than half of the tested information in the program -- despite the fact that they enjoyed watching it and were thoroughly attentive." (p 563) Nine of the children were asked the first ten questions midway through the program providing even greater immediacy, but their comprehension was no better than those tested only at the end. Five year olds did not overall do better than 4 year olds.

There were significant differences by type of formation tested. Questions about action, the 'what happened' type, were by far the easiest with a mean of 72.7% comprehension. For questions about the central educational theme of the program, e.g. "why can't you smell when you have a cold?" the mean comprehension was 27.9%, significantly lower than that for action. That is, the children demonstrated that while they could remember concrete or iconic material, they learnt virtually nothing the concepts the program was designed to teach. Had the researchers merely used recognition tests of the concrete type of material, the

results would have been impressive and demonstrated what a powerful educational medium we have. But as we see again, when it comes to genuine understanding, the best produced ETV fails.

Comprehension of 'asides' was also tested and this again was significantly lower than for action (32.8%). 'Dialogue only' versus 'visual only' and combined presentation was also tested but as the authors point out, this dimension was confounded with that of information type. (p 564) One other interesting point emerged from the analysis. While there was no overall age difference, the 5-year olds were superior to the 4-year olds on the iconic, action questions. Increasing age and experience would appear to help in remembering the concrete material but not the conceptual, at least to this age.

In a careful study, Hodapp (1977) showed that "children can imitate a problem-solving strategy from a televised segment illustrating that strategy. However, children were unable to abstract the strategy and apply it to a transfer task. It may be that children can learn strategies from television but cannot recall the strategy in the face of overwhelming perceptual differences between the televised demonstration situation and their actual problem situation." (p 176, emphasis is added) Hodapp has of course provided an excellent demonstration of the difference between recognition and recall. Realizing the implications of his demonstration, he recommends that "if such techniques are to be included on educational programs for young children they should be accompanied by planned activities coupled with feedback from an adult, which will help the child transfer the strategy to real-life situation." (p 176) Once again the message is reinforced: television on its own, in its own right, is not an instructive medium.

In a review of such studies, Collins & Wiens (in press) document the inability of young children to retain even very simple content, even whe it is the important feature of a show, despite the many hours of viewing in which they have typically engaged. Experience therefore appears to have minimal effects on the ability to comprehend and remember. Collins & Wiens explain that "the particular processes encompassed by these global difficulties are presently poorly understood, however" (p 16, with my emphasis). Both direct and indirect intervention strategies for overcoming these global difficulties appear also to have had only mixed results. Where positive results have been obtained they are clearly the consequence of learning from the humans who have been explaining, teaching or commenting while co-viewing. Even with direct training however, we find the children "did not demonstrate changes in attitudes toward television that had been expected to follow learning about the medium." (p 22) Training to understand commercials proved successful for concretely presented product information but failed to improve retention of more abstract information. Telling children to try hard to remember, and material incentives, both failed to improve retention (p 24).

Collins & Wiens' chapter is indeed a major review of studies of young children's learning from television and it is a dismal litany. Even the most imaginative interventions building on years of accumulated research have failed to do more than dent the massive ignorance children display about what they have just watched, and most of the data was collected by recognition tests. If recall had been mainly used the perspective would reliably have been even more devastating, and when we consider in addition, that most youngsters do not have at home a friendly researcher explaining the concepts and making the interrelations between the 12-second takes, we come full circle back to the case of John, the little

boy who had nothing else but a television, a refrigerator full of food, and a total ignorance of the world.

Further confirmation of the educational effects of face-to-face interaction and direct support for the thesis proposed here, namely that television's neurophysiological effects are such as to reduce the ability to learn from the medium, is supplied by Cohen & Salomon (1979). Attempting to discover which particular mental skills are developed by watching television, these researchers compared American and Israeli middle class fourth and sixth grade children's learning from after-school programmes. Called "literate viewing;" "a process of extracting information from coded messages" (p 157) it was in fact no more than a simple recognition test of how many preselected facts the children could remember from the previous afternoon's shows. The American children were significantly heavier viewers than the Israeli, but remembered less. To explain this 'unexpected' finding, Cohen & Salomon firstly invoke the hypothesis of channel capacity and overload to explain the overall inability to remember even major features of the shows and conclude that "the effects of television's contents may be much smaller than assumed . . .Our data do hint at the possibility that limited channel capacity does operate during televiewing." (p 161, my emphasis) Citing studies in linguistics which suggest that retention is a function of the amount of mental elaboration or 'depth' of information processing, which depends further on quantity of mental effort invested in the process, they speculate about the way the information is structured, the cognitive make-up of the individual and the perception of the task to be performed. Television's symbol systems are discussed as possible reducers of mental effort but 'the medium as the massage' is ignored. While they are clearly but implicitly, as in the above emphasis, searching for a medium

based explanation, they do not attempt to relate their results to the fact that the Americans were simply much heavier viewers and therefo suffering from the accumulated effects of reduced cortical activity. However, none of their speculations provide satisfactory reason for the Israeli-American differences, and so they mention that Israeli children co-view with parents more frequently than American children. But rather than attribute the Israeli's better memories to the commonsense assumption that they probably talked about the programmes, they choose a hypothesis of a social norm that favors "more serious televiewing", leading Israeli children "to invest more mental effort in their viewing" (p 162). However, given that all the children were middle-class where co-viewing is less critical than for working class children, the effects of much heavier viewing by the American children assumes greater weight as the primary explanation of the observed differences.

Mainstream psychology today maintains a fragmented approach to the human being; there is cognition, affect, memory, etc. The open systems approach with its emphasis on direct perception, naive realism, and ecological knowing, cuts through many of the distinctions made by the contemporary perspectives. Anderson's studies, like Collins', focus upon 'comprehensibility'. The results are tests of how much a child attends to and/or recognizes what s/he has perceived. When we find from these studies that although children have been 'glued to the set', they cannot remember what they have seen, we firstly have reason to query the primacy of attention over vigilance. This is dealt with in more detail in Part III. We also must argue that if children cannot remember, understand or explain what it is that they have viewed, then they have simply not b perceiving or learning, in the ordinary, most useful sense of the word 'understanding'. They have merely been distracted, daydreaming, or

enjoying 'time out' (Emery & Emery, 1976 p 74). Television as a medium has been shown once again to present a problem for contemporary psychology, one they have dealt with by sweeping it under the carpet. Only 0.3% of studies, primarily American, in the last ten years have confronted the basic questions of television and behaviour (Emery, F., 1983). Our secondary hypothesis here is that the results for learning from television are so bad and point to the power of the medium rather than the content, that it has been more wise for the academic community to concentrate on fragments than attempt to confront the contradictions, the disillusions and continuing discrepancies that haunt those who dared to risk a comprehensive system view. On the data presented here 'the medium is the massage'. After all, children are, and always have been, remarkably attentive and vigilant creatures, 'little pitchers with big ears'; their job is to learn and survive. But television has muted their most fundamental ability: they are now merely attentive.

7. Television in the Third World & Oral Cultures

The cases of American Samoa and El Salvador raise the issue of 'development' and its relation to cultural change. Is the educational failure and marketing success of television a common experience in underdeveloped, lesser developed or third world cultures? Evidence surveyed above for L.D.C.'s adopting 'Sesame Street' would not lead to optimism. In the Mexican study (Diaz-Guerrero, et al, 1974) we also note in passing that a negative correlation was found between degree of attention paid to the show and number of absences at school. As the experiment was conducted before TV saturation (approximately 65% of this sample had a set at home) this statistic can be interpreted as evidence of habituation: the more frequently they viewed the less vigilant they became of the real econiche. Television increasingly replaced it. One

would have to doubt that this was a planned and desired outcome in Mexico, any more than it was in American Samoa.

A UNESCO study of the role of television in increasing innovative practices in rural Iran can be summed up by the word 'disappointing'. The subjects here were adults but the study fits more properly here than with the section of incidental viewing of news and documentaries. Of the fifteen areas covered, knowledge improved in only eight and declined in two. This yields a net effect of 0.4. Whether recall or recognition was used is unknown but the author (Tavasoli, 1978) makes clear the fact that 'complicated' programmes were implicated in the failure. There was lack of interest, particularly in the highly technical and intellectual programmes (p 63); "performance in terms of a theatrical play left the greatest impact and the contents would be easily absorbed," (p 61) the presence of trained tutors was required (p 62) and it was costly. (p 62 "This is why, after three years, there were only 26 television clubs in some 50,000 villages." (p 62)

The stories are all depressingly similar. But we have not heard the end of them. Another one to watch will be Mozambique (Mattelart & Mattelart, 1982). Another will be the People's Republic of China (Baker, 1983) where penetration has reached 92% of the population and the government "is embracing the television era with enthusiasm". The style however is distinctive, "Chinese and Socialist", and "despite the best efforts of some foreign entrepreneurs to break into the Chinese television market, there is still relatively little advertising," geared more to productivity than to profit. The government's desire for it to contribute to moral and intellectual development versus the commercial

pressures of other interests will provide a nice test of the power of the medium.

> "And now there are those, like P.P. Kale, an official of India's communication-satellite program in Bangalore,who talk in almost starry-eyed terms about the changes in outlook that will come when Insat 1-B is brought into full use over the next months and years. By allowing television programs to be beamed to most of rural India, the satellite will provide what Dr. Kale calls "a window on the world" for millions of Indian children -- something they have never had before." (Stevens, 1984, p 35)

One really must wonder however, what it is that makes Kale almost starry-eyed. Two brief reports of the Satellite Instructional Television Experiment (SITE) were published in 1979 after ETV was introduced to rural primary schools in six states of India (Shukla, 1979; Aghi, 1979). These early indications were bleak. (Table 6.4)

Table 6.4

Summary Results of SITE in India

(where + means expectations were met; 0 means were not met)

Expectations	Achievement
Gains in Language Development (Literacy)	+ *
Gains in General Achievement	0
Gains in Science	0 (? -)
Gains in Cognitive Development	0
Improved Attendance	0
Better interaction with Teachers	0
More motivation to lear-	0
More positive teacher attitudes toward ETV	+

* Across the six states, 19/24 (79%) tests showed some learning in grade III, 14/24 (58%) in grade V.

We are given very little detail about any of these results with the exception of language development. This comprised four sub-groups each of which was measured by a 'special test', most probably of recognition, but even if they were, we note again the gradual loss of achievement from grades III to V. Achievement results "especially in science, were disappointing given the immense effort expended." (Shukla, p 104) The

problem was simply that "much of the information had gone over their heads" (Shukla, p 102), "only two or three new ideas or messages per program were able to be assimilated by the children; more than that resulted in confusion." (Aghi, p 105) This effect was not confined to science, in fact Shukla suggests that the improvement in language development did not depend on correct interpretation of information but on TV's presence "and the frequent visits of urban adults . . . (who) might have stimulated the children to ask questions, to talk to one another, and to think" (p 103).

Similarly, we find in discussion that some of the teachers underwent a training program offered by SITE and this exposure "seems to have positively influenced teachers' encouragement of student involvement". (p 103) The same factors of importance of human teacher; inability to learn concepts from TV ("messages . . . organized discretely . . . were more successful."); "charismatic, empathetic hosts were the most popular; learning by viewing demonstrations seemed the most effective" (Aghi, p 105) and "visuals were grasped more frequently" (Shukla, p 105) are emphasized. Along with the general failure of the educational aims we are told that the children "were primarily enchanted with the 'magic of the picture and sound'" (Aghi, p 105). While the teachers were "full of praise for television" most "were ambivalent about whether televised instruction was superior to teaching conducted in person." (Shukla, p 104)

Granzberg (1982) has reviewed the literature on the effects of introducing television to oral cultures which is consistent with the findings of his own eight-year research with Canadian Indians. Preliterate people are especially vulnerable to television because of

their traditions of the mythos - the story that instructs. Lacking a concept of fiction, television was accepted as the story teller (see also Gerbner et al, 1982), taken literally as the truth, with its stories searched for "deep, metaphorical, personal revelations and for practical relevance." (p 50) The effects parallel the two dimensions found elsewhere; a decline in self-image with a rise in fear, aggression and stress, together with increased consumption of junk food, cosmetics, etc. But because the search for the meaning of the mythos was so frequently futile, some of those traditional Algonkians came to recognize TV as the negative face of the shaman, his capacity for sorcery and transforming dreams into nightmares. For while conjuring, divining and dreaming commonly served the positive purpose of live, long-distance communication, they can also be used "to steal the souls of people and make them die or act crazy." (p 49) Warnings were therefore issued that TV was "trying to possess the minds of children" (p 50) and there is some evidence that they were partially effective (p 50). But Granzberg does not appear optimistic, offering his own warning to other native societies who must contend with the introduction of television. (p 51)

In a paper by Chu and Alfian (1980) the pressures towards commercial rather than ed: itional TV are clearly outlined. While "television was introduced to Indonesia in 1962 by coincidence, rather than the result of policy deliberation" (p 50) the economic pressures to liberalize advertising and the importation of American programming have been inexorable. Running at 25% of all time "imported programs contribute insignificantly to development and obviously violate some of Indonesia's principles of morality" (p 56). However subtle the influence may be, "we know of no case in any developing countries where television which has been introduced with Western aid has been able to operate completely free

of Western influence." (p 56) Despite extension to rural areas, programming has changed little. And this is also despite the fact that in 1980 television was charged with the goals of national unity and integration, the promotion of national development and political stability.

Commercial television certainly promotes pacification through the effects of the medium, and homogeneity through its 'mainstreaming' effects. The superficial index of increased standard of living guaged by increasing sales of junk and gadgets, which will as in Samoa flow into areas after the introduction of commercial TV, will also be observable. It is also possible that the introduction of television will herald a fall in the birthrate. The reasons for this are discussed in Part III. If these be taken for unity, stability and development then the Indonesian government will be well satisfied with its investment, although it will be at the cost of her indigenous cultures. The new Indonesian satellite was launched with the space shuttle Challenger on 3rd February, 1984. Its booster rocket failed after launch from the shuttle and it was therefore lost (7.3.84).

Other studies from the third world do not differ substantially from the cases of Samoa and El Salvador. Television's unique characteristics and their effects have been noted by many in the L.D.C.'s but the movement towards introduction and extension proceeds apace.

In Summary

Five cases demonstrated television's failure to educate and the reluctance and/or refusal of the relevant academic community to acknowledge and communicate this. This chapter has examined the validity

of those conclusions by examining a body of further evidence which throws light on the necessity of a distinction between 'knowledge of' and 'knowledge about'; learning as familiarity and learning as understanding; and its measurement as, recognition and recall.

There has been a continued failure to make the conceptual distinctions and a failure to carefully determine the source of such learnings. When these distinctions are made, some semblance of order and clarity returns to the literature. The conclusions from these cases would appear to be robust. There is some learning from television's content but it is a-conceptual, concrete, unable to be generalized and recalled and is therefore not making a signifcant contribution to understanding.

In particular we note:

1 Failure to conceptualize knowledge 'of' and 'about' has produced self-conscious confusion amongst researchers.

2 Reliance on recognition measures has misled both fellow academics and the public.

3 Children fail to learn concepts from television and young children comprehend little of even its concrete content.

4 Where learning is demonstrated, it is more likely to derive from associated personal transactions than from the medium, although

5 Television inhibits human intercourse and impedes the learning of basic social skills such as spoken and written language: It is therefore dissociative.

6 It is negatively related to academic achievement on a broad scale, from affluent middle class to working class, to 'under-developed' oral societies.

7 The pervasive effects appear more due to the nature of the medium than to the particular content and

8 Producers are well aware of the attention/'interest'-grabbing techniques which guarantee audiences, ratings and adult acclamation.

9 This acclaim is derived from the same set of assumptions that propelled early advocates; in brief, attention equals learning, and,

10 We must respectfully disagree with the most recent and prestigeous conclusion that "Almost all the evidence testifies to television's role as a formidable educator whose effects are both pervasive and cumulative." (NIMH, 1982, p 87)

Further to Sprigle, this survey hints at a more serious conclusion: television may not simply fail to educate -- it may positively disadvantage. We return to the evidence supporting that logical conclusion after exploring comparable data for adults and the influence of television in domains other than the strictly educational.

Chapter 7 Validation: Television Designed to Inform (Adults)

Television, from its inception as a mass broadcasting medium in the 1950s to the present day, has also in the adult realm incurred much hope for the future and many wish-fulfilling statements, such as: "Television, through its general output (not just through its capital E education programmes) is now the chief agency of adult education in this country and a principal educational influence on the entire population." (Groombridge, 1972, p 20) One would expect therefore to find evidence that with the spread of television, the populations of our Western democracies are increasingly informed on current issues; well equipped for responsible citizenship.

What we find is very much to the contrary. In a 1979 American survey it was found that 50% of the sample did not know that the U.S.A. imported oil. (Time, Aug. 1979) At this time people were queueing for petrol. The U.S. is 99% TV saturated (Mander 1978) and average viewing is heavy. In June 1983 the New York Times published the results of a poll on President Reagan's policies in Central America. Only 8% knew which side the U.S. supported in Nicaragua. It did indeed look like "a case of acute Great Communicator breakdown." (Baker, 1983)

A study of adolescents in California which did not pretend to be reliable found similarly horrifying results. A sample: At the University of Southern California, a 19-year-old junior was genuinely shocked to learn that the United States had fought Japanese troops in the pacific. Who won? she asked. Not only were they a-historical but politics and geography of their own country were also murky.

> "Of much greater concern, Stein comments, is the pervasive ignorance of free and totalitarian societies that he found among the teenagers . . . The point is, he says, "that in a state of such astonishing ignorance, young Americans may well not be prepared for even the most basic national responsibility -- understanding what the society is about and why it must be preserved . . . People who do not value what they have rarely keep it for long, and neither will we." (Kilpatrick, 1983)

If TV was a genuinely educative medium the U.S.A. should be one of the best informed societies on earth; second only to the Japanese. Obviously it is deeply ignorant, even in critical matters of domestic and foreign policy. Perhaps this alone is sufficient evidence of television's failure to produce an educated responsible citizenry. Other data, however, explicate fundamental dimensions of this problem both of production and reception, leading to a more detailed and comprehensive understanding of this unique medium. Many of the themes here parallel those outlined in the children's chapter because news and politics in everyday life rarely present tangible products for recognition. A major policy shift or an election are amongst the special instances when personal decisions must be made, or more explicitly, when candidates must be chosen ('bought'). Adult learning from television is therefore a further and appropriate check on the five cases.

1. The News

This is television's primary and most prestigeous educational effort. Competition is fierce for attractive 'anchor people' and coverage. News and the associated documentaries are increasingly becoming 'The Big Show' (Waters et al, 1984). It is doubtful however, if this intense rivalry is about providing the most informative rather than the most riveting coverage.*

(i) Forgetting the News

Large-scale field survey evidence has established "a striking inability of viewers to recall the content of news broadcasts only a short time after transmission." (Berry et al, 1982, p 301). Stauffer et al (1981) surveyed the evidence on remembering, or more accurately, forgetting the news, from U.S.A., Finland, U.K., Denmark, Israel and East Africa. This provides a dramatic confirmation that most people remember little. Contrary to our hypothesis here, some of those studies also implicated radio as a 'look and forget' medium, but that dimension must await another study. But little doubt could remain about television's failure to induce learning and remembering of news information." Even with some help from the interviewer, 48% of television news viewers remembered nothing of the news." (Finnish Broadcasting Company, quoted by Stauffer et al, 1981, p 254)

With a large sample (N = 2700) Jacoby and Hoyer (1982, a) found that excerpts from informative programs which included network news, and presidential addresses, had a higher rate of miscomprehension than commercial and noncommercial advertising. The study used a shopping mall intervention method which eliminates clutter. Subjects were asked immediately after viewing two 30-second excerpts or ads to indicate true or false to six brief statements which sampled the key information conveyed in the excerpt. Conditions were therefore ideal for accurately remembering the content. The percent of viewers miscomprehending at least some portion of the excerpts was 84.5%. The mean level of

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* The first definition of 'to cover' is to hide, conceal, protect or close. It is perhaps ironic that TV or electronic journalism aspires to 'expose' by 'covering'. Dates of the new usage are not given in the Webster's Dictionary (second edition).

miscomprehension was 31%. "If U.S. citizens do indeed rely most heavily on TV to keep informed of the important events occurring in their world and assuming our data are anywhere close to being a reasonable estimate of miscomprehension, then these data suggest cause for concern." (p 20) For other methodological reasons as well as the fact that they used recognition, their figures are likely to be an underestimate (p 18) of not knowing. (This study is discussed in more detail in the chapter on product marketing.)

To test whether print does in fact provide more learning, Stauffer et al set up three conditions: TV visual and sound, sound only and those who only read the transcript of the newscast, in both Kenya and the U.S. Both recall and recognition tests were used on the verbal content.

By both recall and recognition, viewers and readers remembered equally much and both remembered more than listeners. This is an unusual finding on two counts: firstly, that there were no differences between recall and recognition and secondly, that viewers did as well as readers, and both did better than listeners. But let us then look carefully at the methodology --

(i) a news story was considered recalled if S could describe it as "fire in chemical plant". Certainly this criterion which does not exactly denote understanding, would be likely to be extracted from brilliant visuals. It is close to recognition form.

(ii) Add to this the fact that readers in Kenya and U.S.A. did significantly better than other groups requiring a number or name in the answer. In other words, the readers did actually do better when it came to details. They may have picked up more than a global, affectual, impression.

(iii) The test between media, while pure in its own way, i.e. using exactly the same words, is not a test of the unique differences between the media. Radio and newspapers do not simply read or publish the words spoken on TV -- their style of presentation and amount of information are vastly different. What Stauffer et al have demonstrated is simply that the text of a TV presentation without the visuals is as effective as TV with sound. That is, even with half, at least, of the 'information' missing, the reading-only group recalled and recognized as much as the TV group. There is no reason therefore to reject the hypothesis that reading hard copy (print) leads to more genuine understanding than does watching television. We will, therefore, proceed on the assumption that there continue to be differences between the media on perceptual activity and therefore learning and remembering.

A study occasioned by a campaign visit by President Ford to Oklahoma City in 1976 (Kaid et al, 1976) shows that people who hear political speeches in person recall more issues raised than do those obtaining their information from any media. Order of successful recall was for attended speech, newspaper, television and radio. Kaid et al conclude that the mass media did not adequately communicate the event to the public and this is certainly a valid conclusion from their data. Yet we note that content analyses of the media coverage stressed the issue of support for the Republicans "far more than the president's comments on inflation and the state of the economy" (p 307) while the recall data looks as in Table 7.1.

Table 7.1
Recall of Issues Stressed by President and Media by Information Source
(from Kaid et al, 1976, Table II, p 307)

Most Information	President: Inflation	Media: Support Repub.
Speech	55%	42%
Newspapers	17	34
Television	14	27
Radio	10	15

While the media stressed support for the Repuplicans more heavily than inflation there was still less recall of it by those who obtained their information from television and radio. Recall from speech and newspapers was significantly different for inflation but not for Republican support. Lack of interest in particular items or programmes has been the traditional fall-back position for these type of results but there is little evidence of the influence of interests or motivation on learning from news programmes. Neither free recall nor scores of retention of detail (recognition) were related to personal interest (Berry et al, 1982, p 303).

These examples are not difficult to interpret. Television news and documentaries have failed to produce a well-informed adult population. The confusion arises once again as we see immediately below, from the fact that there is a reluctance to accept the data. It is so contrary to expectations derived from the prevailing paradigm of perception that the assumptions and expectations triumph over evidence:

> "Television promotes democracy by providing information about what is going on in the country and the world on a lavish scale . . . But the two previous chapters have indicated ways in which television, by providing information which is distorted and distracting, fails to serve democracy . . . Even though television supplies information abundantly, and most people watch television for three or four hours a day, most of us persist in being strikingly ignorant . . . What was said in chapter 1 about television the liberal educator,

> television the chief agent of adult education, still applies." (Groomsbridge, 1972, pp 123-127)

Groomsbridge has searched in every available quarter for explanations of his confusion; except in the area of the nature of the medium itself. In fact, in his first chapter he has deliberately eschewed making the distinctions that could have enabled him to make sense of his many chapters of evidence about television's failure to promote even representative democracy, let alone participative democracy. He may not have considered his book "the place to penetrate the semantic mists which swirl around the distinctions between, say, instructing, training, informing, educating and liberally educating" (p 20) but his out of the blue conclusion that TV is therefore a liberal educator when his own survey of the evidence tells him that televized information alienates the viewer from his environment and reduces active political concern is a piece of nonsense.

Fortunately, there is some clear straightforward research data on the subject. In The Unseeing Eye, Patterson & McClure (1976) report on a carefully designed study of the American 1972 presidential campaign. We will take their three main sets of data separately.

The impact of TV news was measured by the percent increase in awareness of the campaign issues. This is strictly a measure of 'knowledge of' but as the figures indicate there wasn't even very much of that.

Table 7.2
Percent Increase in Awareness of Issue; for Viewers & Readers
(from pages 50 and 52)

	Non-Regular	Regular
TV News	25	28
Newspapers	18	35

Regular viewers gained only 3% more than non-regular viewers while regular newspaper readers gained almost twice as much as the non-regular readers. Taken simultaneously (Table 7.3) "it becomes even clearer that television news is uninformative and the newspaper is highly educational" (p 51)

Table 7.3
Percent Increase in Awareness of Issues for Reading & Viewing
(from p 51-3 & p 189-93)

		Newspapers	
		Non Regular	Regular
TV News	Non Regular	19	34
	Regular	17	37

For those who didn't read newspapers regularly, watching the TV news actually resulted in less awareness of campaign issues. For those who were regular newspaper readers regular news viewing added only 3%.

Data is also presented in terms of sex, educational achievement, income and age. "Neither men nor women, the uneducated nor well-educated, the poor nor the wealthy, the young nor the old, greatly improved their issue information by tuning in television news. Newspaper reading, by comparison, informed each of these groups of voters." (p 54) Their overall conclusion here is that "network news may be fascinating. It may be highly entertaining, but it is simply not informative." (Patterson & McClure, 1976, p 54).

Table 7.4

Percent Increase in Awareness by Medium and Education
(from p 54)

	TV News			Newspapers				
	Non-Reg	Reg.	Diff.	Non-Reg	Reg.	Diff.	x^2	p<
Less than High School	15	18	(3)	6	29	(23)	6.35	.02
High School Graduate	23	26	(3)	16	34	(18)	2.31	ns
More than High School	33	37	(4)	27	40	(13)	0.62	ns

I have selected out the data for education as this is a central issue with the television advocates emphasizing the medium's ability to restore educational equity. What Patterson & McClure have not mentioned here from the last table is the difference between percentage gain in information of the issues. These difference figures are my addition and show clearly that for the TV news, there was no difference in gain between differing levels of educational achievement. For newspapers, however, the greatest gains were made by the least well-educated, as the x^2 column indicates. Only the first is significant ($p < .02$) indicating that those with less than high school education have more to gain from newspapers than television. The already well-educated do not suffer particularly from watching TV, but for the educationally disadvantaged to rely on television is to take a further step into ignorance.

(ii) Long Term Effects of Viewing the News

As Groomsbridge has put it "Television is providing information for surveillance and orientation, and yet the effect is alienation" (1972, p 113). However, Michael Robinson (1975) presents data for a more far-reaching and disturbing conclusion: "our current political pathology is a function of our television news system." (p 98)

While I am concentrating here on the political side of the news it is worth noting that Mander reminds us that all organizations focussing their efforts through television are themselves negatively affected. (1978, p 37) "Since 1958 the proportion of Americans believing that they cannot even understand politics has virtually doubled. We have, in short, witnessed the slow and steady decline of two basic political commodities -- belief in the worth and appropriateness of our governmental structures and belief in our own capacity to know and understand politics." (Robinson, p 98)

Table 7.5

Influence of Television News on Political Beliefs
(Percents)

	Those Not Relying on Television	Those Relying on Television	Those Relying Only on Television	
Cannot understand	63	71	91	(p 102)
Believing 'quite a few' gov't leaders crooked	21	27	34	(p 103)
Believing Congressman loses touch with constituents	47	57	68	(p 104)

The pattern is clear that increasing reliance on television is associated with greater negativism. In particular, we note that lack of understanding increases more dramatically with this reliance than cynicism, the difference between those relying on television and relying only on television being two-and-a-half times bigger than the difference between relying and not.

Robinson also presents his data against six levels of educational attainment. The relationship holds in every case. This relationship has been found in 1960, '64 and '68. "Before that time there was no

relationship between television dependency and one's opinions about his or her political worth or the worth of our political institutions." (p 102) He further postulates "The iron law of media"* -- "the level (or branch) of government which receives the greatest emphasis will, in the long run, also experience the greatest public disdain." (p 117)

Robinson is not alone in coming to his conclusion (not solely based on the above data) that "the images of television news seemingly do more to decrease our own sense of self-esteem and sense of political commitment than they do to liberalize our thoughts on inflation, pollution, shortages or housing issues -- which the networks routinely address but rarely influence." (p 118) Ranney (1983) also presents data from Miller (1979) which "show a continuous and precipitous drop in public confidence and trust in government since the late 1950s." (p 79) Table 7.6 summarizes this evidence.

Table 7.6

Trust in Government Between 1958 and 1978
(from Ranney, 1983, p 78)

	1958 %	1978 %	
Cynical	11	52	$x^2 = 46.4$
Trusting	58	19	$p < .001$

Ranney considers it is "not unreasonable . . . to conclude that television has made a major contribution to that decline. In his foreword to The Unseeing Eye Warren Weaver says "Finally, it is disturbing to contemplate the possibility . . . that television news

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* By media, Robinson means television as he makes clear by comparisons with print. It is a symptom of the insidious power of television that 'media' can now be used instead of 'television'.

shares the responsibility with Watergate for the low esteem in which the practitioners of politics find themselves today. The version of campaigning that dominates the nation's screens, as demonstrated in this book, is one that denigrates the electoral process and discourages participation in it." (p 20) (see also Patterson and McClure, p 144)

In a study to test the generalizability of these findings, Becker et al conducted 460 telephone interviews in Syracuse, N.Y. Their results were partially supportive at the local government level but not at the national level. Those who relied on newspapers were more likely to approve and trust in local officials. But knowledge of city affairs measured by recall was positively correlated with newspaper dependency and inversely with TV and the authors speculate that the media dependency-evaluation link is an indirect one mediated by level of knowledge.

Mander has argued that television "is inherently anti-democratic" (p 349). "Television aids the creation of societal conditions which produce autocracy, it also creates the appropriate mental patterns for it and simultaneously dulls all awareness that this is happening." (p 350) Altheide goes to the heart of the matter by making the critical distinction I have argued for above. "Thus while TV news may give us a superficial acquaintance with some events, these reports are helping to shape the public consciousness and, therefore, the future of our society. An informed citizenry must have more detailed knowledge about the news process." (1976, p 27 My emphasis)

As we have seen, many people have analyzed 'the news,' its production and effects. There remains little doubt that television 'news' and other

documentaries are distorted, mediated realities, in some cases almost entirely fictional 'realities' which leave viewers impotent and ignorant. This is so because the 'information' must be produced and packaged to fit the medium. Television news cannot these days be easily distinguished in its primary effects from any other programming. Yet the news would have to be in the eyes of most people the most 'credible', of any of television's products. But its coverage is so biased toward the visually spectacular and the sensational that action, particularly violent action is the common fare. The Annenberg School (Gerbner & Gross, 1976; Gerbner et al, 1980) confirm that heavy viewers are more likely to report that people cannot be trusted and have a generally heightened sense of insecurity. Insecure, anxious people who feel powerless and helpless constitute a health hazard for democracy.

Further analysis of the huge data base amassed by the Annenberg School has revealed that the heavy viewing 'mainstreaming' process leading to the violent 'mean and scary' world view is paralleled in political socialization. Gerbner's team expected that heavy viewers would prefer 'middle-of-the-road' political orientations alongside different and at times contradictory assumptions . . . (including) demographically skewed, socially rigid and mistrustful, and often excessively anxious or repressive notions, but expansive expectations for economic services and material progress even among those who traditionally do not share such views". (Gerbner, et al, 1982, p 107) That was very much what they found. On the surface, mainstreaming appeared to be a centering, even a liberalizing, of political world views but while heavy viewers more frequently tend to describe themselves as 'moderates' they take "unmistakably conservative" positions on politico-social issues, though not on economic issues. (p 126) Television viewing blurs traditional

conservative, moderate and liberal boundaries but it is liberalism that suffers most amongst heavy viewers.

In 1976 Emery & Emery argued that television was the perfect medium for a heavily bureaucratized society. Now, more than ever before, we must think carefully about the future of our democratic societies. A population, ignorant, impotent, and bewitched is simply not a secure basis for the democratic process at any level of society. Reference must be made here to 'tele-democracy', the practice of instant polling which will increase as cable TV increases. As practised so far, it has been random and unscientific, yet powerful. A problematic aspect is "their influence not only on public opinion but on government leaders". (Sabato, 1982) Recent Australian data gives no cause for optimism in this regard. At the beginning of 1979, Emery & Emery analyzed national data collected between 1973 and 1978. In the period '73-76 no negative scenari appeared in the central cluster of the data. For '77-'78 two were centrally present; dissociation and synoptic idealism. Briefly, synoptic idealism connotes the fear of manipulation from above, corresponding to the "politicians are either crooks or cretins" syndrome. Dissociation represents that whole constellation of factors such as 'alienation', powerlessness, 'I'm alright Jack' and privatization; a syndrome of withdrawal from community and organized society in which television is heavily implicated as a determining factor. (Emery & Emery, 1976) Taken together these two scenarios clearly indicate that cynicism and withdrawal are now a feature of the Australian national psyche. These results have subsequently been confirmed by 'Task Quantum' working on the same project. "Our research program has provided furth confirmation of other recent TQ work concerning an increasingly negative

view of Government and politicians in Australia. The trend is disturbing in its intensity and breadth." (1979, p 28)

To the best of my knowledge we simply do not have Australian data comparable to that collected by Robinson. But what we do have is substantial quantities of circumstantial data directly comparable to that collected in the U.S. and indeed, so far there is little evidence in this field of significant differences between data collected in Australia, U.K., U.S.A., or elsewhere; television is an international phenomenon and people are people all over the world.

2. Political Education

Representative democracies demand not only well-informed but also politically literate electorates. Understanding the political process and its influence on national policy is as critical as knowing the detail of events in context. Election campaigns, their organizational form and intent, are an important component of the overall process. To the extent that the total process is open and understood by the populace so will wise decisions be made, both by the populace itself and its subsequently elected leaders. Here we examine the question of to what extent today the American public is politically literate.

(i) Image or Issue?

Patterson & McClure looked at the evidence for television's political image-making power. Their conclusion is that this power is a myth. "Voters arrive at their image of a candidate by judging where he stands politically and by assessing his significant accomplishments and failures. A smiling presidential candidate, engulfed by thousands of

adoring admirers, may make for good television, but it is not the basis on which the electorate evaluates potential leaders." "Voters are not fools." (p 73)

Table 7.7

Effect of Spots on Candidates' Images
(from p 112)

	Pro-Nixon Voters		Pro-McGovern Voters	
	Exposed to few spots	Exposed to many spots	Exposed to few spots	Exposed to many spots
Nixon's Image	33	34	-22	-14
McGovern's Image	-28	-27	18	23

The authors appear justified in concluding (p 203-205) that selective perception intervenes in the image building process. Certainly, high levels of exposure did not have much effect. There can be little do about this data. It shows clearly that the voters did not change their minds about the images of the candidates. But there are grounds for asking how the voters gained their images in the first place. Studies of 'the Great Debates' showed clearly that images of Nixon and Kennedy differed depending on whether the debate was mediated by radio or television. People who heard the first debate on radio thought it was a draw (MacNeil, 1968, p 170). People who watched TV thought Kennedy a clear winner and that was the common conclusion of the thirteen different studies (as above, p 168). There was a net gain for Kennedy over the series, of 10 percentage points amongst viewers while amongst non-viewers he gained nothing. (Katz & Feldman, 1962, Table 7, p 153) "Nixon had to maintain his image; Kennedy had to attain his -- and the latter (or it seems after the event) is the easier thing to do". (as above, p 147) Amongst the researchers there was general agreement "that a television

debate of this kind, which focuses attention so sharply on the contestants themselves, leaves a mass audience with (as we have seen) some very distinct impressions of the capabilities of the two men as debaters and as persons, but (as our results suggest) with very little idea of what the debate was all about." (Kraus, 1962, p 200)

A laboratory study has also confirmed that TV is most persuasive in relation to image although no different from radio or print when it comes to issues. "It is not unreasonable to suggest that the electorate in this era of the tube has been persuaded more by projected images of candidates than by their positions on political issues". (Keating & Latané, 1976, p 130) Atkins et al (1973) found a substantial influence of spots on swinging voters but also found to their surprise, that newspapers were cited as helpful in deciding almost as frequently. (p 220) Mander, arguing from knowledge both inside and outside the television industry, is convinced that television has the power to make or break presidents through its creation of images. Using the examples of Nixon and Johnson, both of whom understood the medium and attempted to dominate and use it to their advantage, he shows that ultimately television won. "Bringing Nixon down was just as good for ratings as supporting him. Better. More action." Caricaturing Johnson's personal style was "better television" than presenting him favorably. (Mander, 1978, pp 34-35) Lesher presents a similar case of a TV correspondent who went in one program from media hero to media opportunist. (Bedell, 1983)

In contrast to the image dimension of 'spots' Patterson & McClure claim that "issue appeals work . . . In fact, the contribution of advertising campaigns to voter knowledge is truly impressive." (p 116)

When one examines Table 7.8, it becomes apparent that it is only among those who hardly ever read a newspaper (and these as we see will be skimming, not reading) that the gains from spots looks anything li impressive. Only the difference between seldom and regularly read newspapers by spots is significant ($X^2 = 3.92$, $p < .05$). While the authors acknowledge this on p 125, it still conflicts with their overall conclusion as above.

Table 7.8

Percent Increase in Awareness of Issues on Spots by Medium
(from p 127)

		Newspaper Reading		
		Seldom	Occasionally	Regularly
TV Spots	Few	12	27	46
	Many	28	32	49

Using Patterson and McClure's own words, we shall examine what this means in terms of producing a well-informed electorate.

"Three basic advertising strategies -- simplicity, repetition and sight-sound coordination -- combine to make presidential spots good communicators. Ads contain such simple messages that they leave almost no room for misunderstanding." (p 117) "Not only does advertising fail to inform fully about any single issue, but it also fails to inform about the full range of election issues . . . Many significant issues are purposefully and systematically avoided because the content of political commercials is always determined by the candidate's desire to win elections and not by the voter's desire to make a wise political choice." (p 127) "So there can be no argument that in every presidential campaign millions of American voters are exposed through political advertising to distorted and limited information" . . . "People who follow presidential politics closely through the news media are virtually untouchable . . . Neither is advertising very important in the presidential voting of that broad spectrum of the electorate . . . where the potential for advertising manipulation seems real is among . . . those people who virtually isolate themselves from campaign news coverage." (p 130)

So in fact the 'truly impressive' gains made by the already disadvantaged turn out to be nothing more than successful manipulation. "The keen understanding of issues that can come from close, continual attention to the newspaper will not come from seeing political spots . . . For these people, the information in ads is better than no information at all." (p 139) On the basis of Spero's evidence and others (see below) I suggest that the last quote should be seriously questioned.

(ii) The Language and Principles of Political Advertising

Beginning with Eisenhower's successful 1952 campaign, Spero (1980) has analyzed the use of television in the electoral process. By carefully analyzing the advertisements used and correlating them with the success of the candidates, he derives the title of his book -- The Duping of the American Voter. Spero argues strongly for the power of spots.

> "Yet nothing served Carter and Ford so well as the telvision commercial. Nothing created and nursed their lies so effectively and made them so palatable. Nothing could be controlled so carefully and made to appear so benign. Nothing but the television commercial could be programmed so far in advance to reach so many people at one time -- again and again and again -- without disclaimer or interference." (Spero, 1980, p 2)

Using the standards and restrictions imposed on commercial product advertising by nine U.S. government agencies (p 6-7) he shows that every candidate in every presidential election since 1952 has violated at least a handful of these codes.

The first TV political campaign was by modern standards a brilliant start, utilizing what were to become the rules of the successful television game. In the commercial world, Price (1978) considered 1970 to be the turning point when ads moved from being 'beautiful short

movies' to 'real TV', developing only one unique selling proposition (USP) and being able to get it across in ten seconds. But Rosser Reeves had already conquered these rules in 1952 and won for Eisenhower a landslide victory over the uncommonly, politically literate Stevenson. (Spero, 1980, p 33) Reeves wanted a one-issue campaign but was forced to compromise with the TV-illiterates. He wrote fifty, fifteen second ads around three themes and filmed them all in one day. With these the Republicans 'blitzed' the public to the tune of nine million dollars (today's prices) of commercial time. (p 36) Reeve's learning from his experience with 'Cleans your breath while it cleans your teeth' opened a new era in the representative democratic process.

Spero sees Kennedy's narrow victory over Nixon as the result of Nixon's decision to stay out of the medium although he had previously used it effectively. Kennedy's ads were 'surprisingly amateurish', 'dir politics' and no match for the already highly skilled work of the Nixon team, but they put him constantly before the American people. He became by far the most familiar candidate.

In the chapter on Johnson & Goldwater, Spero examines the power of television to create memories through intense emotional presentation. By using a distortion of Goldwater's remarks about the accuracy of their nuclear guided missiles, the Johnson agency created "The little Girl and the Daisy". This spot showed a little girl dissolving into a radioactive cloud while Johnson prescribed how "we must either love each other or we must die". (Spero, 1980, p 47) Because of the massive international outcry against such tactics the spot was shown only once. But people who can remember nothing else of Johnson's campaign still remember this ad. (p 49) Note that it contained no information and Goldwater's name was

not mentioned. It played only on the fear and horror of nuclear war and afforded Johnson a jumping-off place for the rest of his television campaign. He received the largest election mandate ever handed an American president. (Spero, 1980, p 75) The ad was affective and effective.

As the American public slowly discovered, Johnson was in fact closer in practice to the public image created for Goldwater than Goldwater himself may have been. They had clearly been deceived. Four political television principles determined the successful deception.

(i) The candidate and therefore any reminder that he was a 'wheeler-dealer' was not shown

(ii) Theatrical images replaced speech-making images, probably for the same effect

(iii) Commercials were "unrelentingly combative and negative toward the opponent" (p 61) and

(iv) Johnson was presented as President rather than 'candidate' and the spots served as surrogate tours of the electorate.

These four guidelines allowed Johnson to keep the real information and the real personality out of public view. Only the widespread belief that television is informative and credible, combined with the fear of Goldwater created by the vaporization of the girl and the daisy, gave Johnson his record margin. But Spero lays some of the blame on the press for not recognizing that in political advertising, style is not just style; it is the content. Political analysts who have been trained in print are contemptuous of television as an intellectually inferior medium and have consistently missed the point of the ads, underestimated their

effects on the public and consequently left their analysis too late, that is, until after the election. (p 9) It is not that the candidates h little to say in their spots; they said a great deal. But it was in the language of television rather than words.

After describing Goldwater's campaign as "honest but dopey," (p 77), in other words, television-naive, Spero illustrates how Humphrey lost to Nixon through a failure to observe the rules of this medium. These, as he puts them from the mouths of those who fought over the work for Humphrey, were:

-- don't attempt to convey "a lengthy list of undigestible statistics" (p 92); in other words, information

-- define "the message we wish to communicate to the voter (and) never build a commercial around more than one idea" (p 95) i.e. keep the USP simple

-- start early and advertize in quantity (p 95)

Nixon won on all three counts. And his agency added a new touch with a potentially powerful effect on viewers --

> "Have you noticed?" says (a member of Nixon's agency) to journalist Joe McGinniss "The same faces reappear in different spots. The same pictures are used again and agin. they become symbols, recurring like notes in an orchestrated piece. The Alabama sharecropper with the vacant stare, the vigorous young steelworker, the grinning soldier."
> McGinniss asks whether it is "insidious."
> The filmmaker smiles. "Yes: the effect of the stills can be almost subliminal."* (Spero, 1980, p 101, my emphasis)

Nixon had learnt about television. Humprey's campaign was old fashioned.

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* Subliminal TV has been recently explored again by Beaird, 1983, with a new science fiction twist.

Nixon's rapid learning about the power of television took him, once president, to an unparalleled approximation to 1984 with the creation of the November Group. Comprised of advertising men, who for the first time entered senior White House staff positions, the November group continued and grew after the election to forty-five persons, "not an immodest agency by Madison Avenue standards." (Spero, 1980, p 109) They were controlled directly by Nixon's closest advisors and followed the rules laid down in the Johnson campaign.

Following the traumas of Vietnam and Watergate, the American people felt a need for somebody to fix things up in a way which was nostalgic of an earlier U.S.A. They were given the choice of "Honest Jimmy vs Honest Jerry (in) a campaign as American as apple pie, motherhood and Machiavelli." (Spero, Chapter 8) Spero notes in this campaign a subtle change, in that during the final weeks only the commercials ran against each other. Television had finally become the election process. A convincing but circumstantial case is made that the Carter win was aided by Coca Cola, whose insubstantial ads have become probably the most powerful and profitable in history. Certainly Spero's analysis of the Coke and Carter styles (p 136-149) indicates a remarkable closeness. Coke ads are never 'annoying'; they contain no information or scenes which could possibly disturb the rhapsody by an unwitting intrusion of reality. Carter's spots used identical symbols and fed the nostalgia of the nation. Spero agrees with Robinson that television has played a major role in the increasing apathy and despondency of the public toward the 'democratic' process. Television has not turned politicians into liars but it has so amplified the subtle distortion as to incur a national feeling of unease and powerlessness.

Now "to an unprecedent extent, Mr Reagan and his staff have made television a major organizing principle of his Presidency. His days planned around opportunities for TV coverage. Every effort is made to assure a constant flow of positive visual images and symbols from the White House". (Weisman 1984) The message is kept simple, at the level of values and anecodotes, "parables"; it must not be "undermined by the details of political issues". (p 41) Speeches have become "masterpieces of storytelling" (p 42) and "Aides say that Mr Reagan is a genius at boiling abstractions down to concrete concepts that the public will understand." (p 52) More than anything else, the TV performances are designed to distance him from the responsibility of government. No wonder he is called by the press, 'the Teflon President' - what the public perceives is an amiable, well-meaning man. The role of Chief Executive has been redefined into that of "host to the nation". (p 42)

Mander, Price and Spero, all insiders of the television industry have painted identical pictures of not only how the medium works, but how it must work. Ranney (1983, p 179-80) agrees. Nelson (1983) shows that some advertising people are open about the fact that in terms of technique, politicians are marketed exactly as any tangible product.

3. The Demanding Medium

There are three major interpretations of the behaviour of network news departments. The 'Reality' interpretation ("that's the way it is") argues for TV news as valid because there is only one criterion for journalists in any medium -- news worthiness. The 'Political' interpretation argues that the production decision-making process attempted political persuasion. Neither of these interpretations, according to Robinson & McPherson (1977) can compete with the third, for

which there is overwhelming and still accumulating evidence. This interpretation, called the 'Organizational', regards 'news as sausage', "the resultant mix of social, legal, electronic and economic exigencies to which all three networks must accommodate themselves" (Robinson & McPherson, 1977, p 177) Their conclusions are further supported by a study of the coverage before the 1976 New Hampshire Primary. "The fact that all networks -- together or singly -- gave a greater percentage of their time to New Hampshire than did all the newspapers -- together or singly -- (p 185) creates grave difficulties for the Reality hypothesis. Similarly, the three Republican candidates received as much coverage as all other Democratic candidates combined, despite network news correspondents being overwhelmingly non-Republican; a result which does much damage to the Political interpretation.

> "The networks clung as desperately as they did to New Hampshire in order to meet their self-perceived obligation for supplying the viewing public with hoopla. This hoopla imperative would explain why the networks, despite the wishes of their top personnel, increased their coverage of the New Hampshire primary substantially between 1972 and 1976." (p 185)

The Fairness Doctrine and the Equal Time Provision also made contributions to the overall form of the coverage. Finally they explain why Reagan was the TV candidate (p 184): once the bureau was established the cameras had to film something and Reagan was there (p 186).

The Organizational interpretation of television's failure as an adult educator is by far the most supported in the literature. CRT technology is now well understood and its demands and limitations are focal points for producers and critics alike. These constraining features are illustrated by the interwoven themes in the following discussion. There are convergences which lend an unmistakable coherence to the literature,

regardless of whether the contributors be objective TV analysts such as Robinson, or renegades from the industry itself. Historical trends production technique towards entertainment rather than informative news, from political education to spots, and more recently the 'commercialization' (in terms of technique) of public broadcasting in the U.S., are indicative of the relentless pressure of the medium and a gradual process of accommodation.

At the core of the multitude of explanations that have been offered for the failure of televized information, lies the fact that 'technical limitations conspire to create a far deeper and much more serious problem for television: it is inherently boring (Mander, 1978, p 299), boring but addictive! Mander, Winn and Dunn all present evidence for this conclusion. To overcome the possibility that too many people may become aware of this and start reflecting on their viewing experience, television producers have devised a structure and format for content presentation which reduces the incidence of boredom. The result is simply that all television becomes "show biz, pure and simple". (Cater, 1983) In 1965, Sampson did a review on the eve of the demise of the six-month old Not So Much a Programme. "It made nearly everyone who appeared on it, and every subject they talked about, seem less dignified and serious than before . . . it reduced everyone and everything to the same slick level . . . It wasn't any kind of real world that the programme purveyed; it was the professional shop world of communications and entertainers". (Sampson, 1965) Importance gives way to effect.

> "It was explained to me that an editor in New York, after the program went on air, killed the feature because the young woman who won the prize failed to display sufficient emotion. She neither screamed nor jumped up and down in the fashion of TV's 'real people'." (Cater, 1983)

And the effect is largely due to affect.

Cater asks what television does to those men and women called leaders who feel obliged to accommodate to its organizing principles, who rise at dawn for brief exposure on the early morning show before being hustled off the air by the impatient commercial. It may not be only the mass audience that suffers from what he describes as the 'St. Vitus dance rhythm' of news and documentaries. That there is an increasing trend in news production towards brevity in news item presentation is confirmed by Smith, 1977. He found a new, preferred, dimension of brevity and conciseness amongst his sample which parallels the shift from the old standard of 10 stories to 20 stories, per half-hour (p 118)

Reviewing Lesher's new book on TV journalism Bedell notes:

> "Even more intriguing than Mr Lesher's views, however, are those of prominent journalists such as Mike Wallace, Harry Reasoner and Don Hewitt, the executive producer of CBS's '60 Minutes', primarily because they express so little self-criticism or self-doubt. The one refreshing exception is NBC's Roger Mudd, who confesses discomfort about the increasing prominence of reporters in their stories, the cosmetic and visual tricks that alter reality on television newscasts and the dramatic style of confrontation on '60 Minutes'. 'That's not reporting', Mr Mudd says. 'That's an awful lot of acting going on there'." (Bedell, 1983, p 10)

Quoted from a television director (U.S.) -- "The highest rated stations are the ones that are putting a lot of nonsense on their show" (the news) (Altheide, 1976, p 44) "Television's central role as an entertainer holds for both the more and the less educated (Comstock et al, 1978, p 172) It is commonly found that between sixty and ninety percent view only for relaxation and entertainment, or to fill in time. (Comstock et al, p 170)

Arguing from the perspective of general semantics in the tradition of Korzybski, Innis and McLuhan, Postman (1980) warns against confusing the world with our means of symbolizing it. "Language is not merely a means of communicating; it is an organ of perception" (p 321) and media, far from neutral mechanisms, are shapers of values, masseuses of the senses, advocates of ideologies and organizers of social patterns (p 323). In short, they are metaphors through which we conceptualize reality.

He analyses the 'television news show' which is so called because it is an entertainment, a world of artifice and fantasy, carefully contrived to produce emotional reactions. If the function of information is to modify or provide direction to action, and if to 'know' implies to 'remember', "then it is almost precisely true that TV news shows give nearly no information and even less knowledge". (p 324) He analyses the structure of the TV news and its fundamental messages.

> "By using the same music each night, in the same spots, as an accompaniment to a different set of events, TV news shows contribute toward the development of their leitmotif: namely that there are no important differences between one day and another, that the same emotions that were called for yesterday are called for today, and that in any case the events of the day are meaningless." (p 325)

Relevant uncertainty is both denied and forbidden in the quest for positive affect. The predominant charms of a human face (see also Emery & Emery, 1976), variety rather than complexity, lack of historical continuity or any sense of context and the excitement generated by tempo, not substance, adds up to TV news as "a form of absurdist literature which nightly instructs us on how we shall see the day". (p 327) "Here is your window on the world". It is a window, moreover, which may make it as difficult to feel as it does to think. Postman is convinced that producers express their guilt about the fact that audiences are supposed

to feel something about a particular story, but don't, by including the 30-45 seconds of "feeling" responses by the person in the street. (p 326) He asks how the news could be encouraging knowledge when "it is commonplace for people to eat a chicken sandwich while watching a mother collapsing from grief over a dead child". (p 324) He, quite intuitively, could be right. Zillman & Cantor (1977) found that while children would verbally report emotional reactions

> "The analysis of the data on the facial responses of subjects as they viewed the final segment of the film yielded no significant effects of the major variables under investigation. Generally speaking, facial expressions of euphoric or dysphoric feelings were very infrequent among subjects in response to the film. Viewing behaviour correlated poorly with the other measures, the highest correlation being with the scaled affective response to the concluding incident. (o. 32) The overall interjudge reliability for the judged facial expressions was comparatively low (r = .75, in contrast to r = .94 for the verbal responses)." (p 161)

The senior author claims however, that this is easy to explain (personal communication). His measures were not sufficiently sensitive to these direct effects. Given that it is easier to socially conform via language than 'body language' there is still a real question here about the muting of both affects and analysis.

There clearly is an affective dimension to the news but it is found not in relation to the issues but to the newscasters. Levy (1979) set out to evaluate the concept of 'para-social interaction', the illusion of face-to-face, primary relations with actually remote mass media personnel. According to the para-social hypothesis TV 'personae' encourage the audience in the delusion that they are real, present peers, and audiences do in fact react and interact as if they were. Focused group interviews showed that some people do not in fact, distinguish real from on-screen people and the affectual tone appears very positive. Levy

developed seven propositions for a para-social index which are reproduced here to convey the flavour of this phenomenon (Table 7.9).

Only item 3 failed to reach the mean and this can be interpreted to mean that it is difficult for the audience to feel or think about the news item itself. The correlates of para-social interaction provide the configuration (Figure 7.1).

Figure 7.1 shows that para-social interaction is a phenomenon of increasing age and low formal education; that is disadvantage. It is not particularly a function of news viewing although this correlation (dotted line, 0.22) is significant. The causal chain would indicate that more probably it is a function of total TV viewing. 'Watch alone' has no significant correlations which indicates that it is irrelevant for this phenomenon whether co-viewers are present or not. The 'televisi[on] families' (Bradbury, 1953, Disch, 1974) become more real than the tangible ones:

> "First and foremost, the para-social relationship is based on an affective tie which many members of the audience create with the communicators. Even though this affective tie is completely the subjective invention of the audience, para-socially interactive viewers believe it is genuine and they interpret the behaviour of the (news) personae as reciprocating this 'real' bond. Further, like other primary relationships, the para-social interaction of audience and (news) personae often serves to meet the tension-release and integrative needs of the viewer. People who engage in para-social interaction are often reassured by a familiar, friendly 'image' of their intimates-at-a-distance; and para-socially active viewers experience a sense of order, belonging, and context from their relationship with the (news) personae."

Smith (1977) confirmed previous research which found that a primary dimension for judging the news centered on the presentation of t[he] newscaster rather than the overall format of the newscast, and that "the

Table 7.9

Mean Scores for Para-social Propositions
(from Levy, 1979 Table 1, p 73)

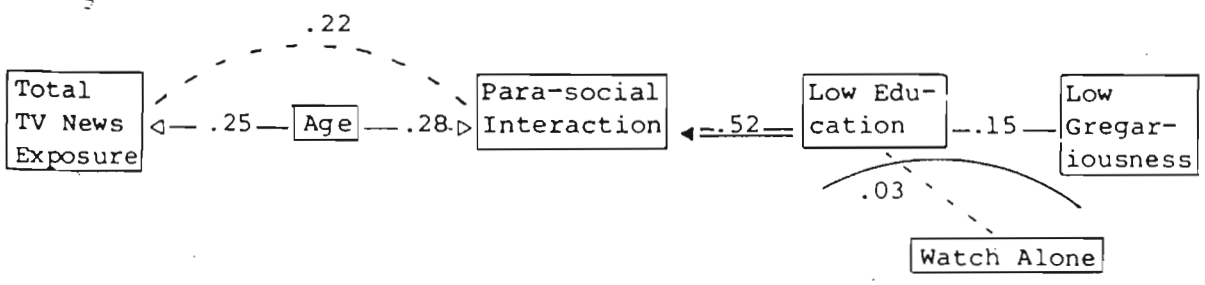
Proposition	Mean*
I like to compare my own ideas with what the commentators say	3.91
When the newscasters joke around with each other, it makes the news easier to take	3.61
I like hearing the voices of the newcasters in my house	3.40
The newscasters are almost like friends you see every day	3.17
Television shows you what people in the news are really like	3.17
I feel sorry for the newscasters when they make mistakes	3.14
When the newscaster shows how he feels about the news, it helps me make up my mind about that news item	2.75

(N = 240)

* Calculated from scale strongly agree = 5 to strongly disagree = 1

Figure 7.1

The Dynamic of Para-social Interaction
(from Table II, p 76)



amount of television news exposure does not markedly affect the establishment or composition of judgemental criteria for television news." (p 118-9) Disadvantage and a low level of the positive affect of enjoyment combine as a powerful dissociative force away from the 'mean and scary' real world and its people.

When the necessity for television to be action-packed entertainment presented by friendly attractive people in order to get the ratings is accepted, then the following factors fall easily into place.

(a) "The Inadvertent Audience -- that large amorphous portion within the Mass Audience . . . which is willing to listen to or watch the news if the listening or watching is entertaining . . . receives its politically relevant information through a wholly passive process" (Robinson, 1975, p 106). "People watch spots. Longe programs get turned off." (Patterson & McClure, 1976, p 121). Thirty-minute political discussions are no match for entertainment programs. This uninvolved audience watches spots because it "takes more effort to avoid the commercial than to watch it." (Patterson & McClure, p 125) Singer (1980, p 46) has also noted the general inability to resist looking at the TV set when it is on, regardless of being engaged in an activity such as reading, and the commercial exploitation of this inability.

(b) "The Non-partisan Biases of Television News" (Robinson 1975, p 110) -- "it is their organizational needs which produce a content at ABC, NBC and CBS that is essentially the same -- despite th varying political opinions of the people who run those three greatly similar organizations". (as above, p 112) These biases can

be seen to arise from the Thematic Bias (The Short Story, The Formula Story, etc.) -- "it tends to hold the audience, especially the Inadvertent Audience". (p 112) Essentially, this amounts to seeing much of the news as a Goodies-Badies story. "In one respect the theme of social discord is extraordinarily well-suited to television. It is a hook from which one can hang a good deal of sensational film footage." (p 113) Mander agrees and illustrates his case with examples he was personally associated with. Altheide calls it "The news perspective" -- "the organization of news for practical reasons encourages the adaptation of a convoluted way of simplifying events." (p 9) Associated with this particular bias is the obligation to make a 'balanced' presentation -- 'The Bias of Artifical Balance' -- "Sometimes the journalist is obliged to invent the second point of view, the conflicting point of view". (P 116) Although wholly inadvertent, this bias "may explain why the people who rely on television are totally convinced that politics is not only venal but also indecipherable." (p 116)

(c) Television as a medium has to deal in pictures; "but not all reality is pictorial". (Groomsbridge, 1970, p 118) "Public affairs programs are seriously biased away from coverage of highly detailed, complex and subtle information, and so are news shows . . certain kinds of visual information are harder to capture than others. New producers will always choose the more easily communicable image." (Mander, 1978, p 274) "Few campaign issues can be told well with pictures." (Novak in Patterson & McClure, p 55) "The most memorable pictures . . . are more frequently associated with trivial stories than with significant events." (Patterson & McClure, p 82) On top of these we also have

'technical events' and distortion through condensation of time. Technical events "make it seem that what you are looking at unique, unusual and extraordinary". (Mander, p 296 & 302) These are necessary to overcome the problem that the viewer may become conscious of higher boredom (and addiction) and also to overcome the fact that most of the information a "reasonable, thinking person would consider necessary to any understanding of events in process" has been eliminated from the news broadcast itself. (Mander, p 298)

Barton and Gregg (1982) did a 'formal' analysis of the CBS coverage of the week following the 1978 PLO terrorist attack on an Israeli bus. This coverage amounted to 28 minutes in which time five patterns of meaning emerged from the conventional (technical) and organic (inherent) forms of the newscasts. A predictive form was predominant emphasising the future and creating expectations, and this intermingled with patterns that enhanced the authoritativeness of the network in mutually supportive ways. These five were:

"1. The repetition of limited themes and modes.

2. The exclusion of details, ambiguity, and complexity relating to the event

3. The distortion of the dimension of time, including the stripping away of the historical context relating to the event.

4. The substitution of a variety of visual settings in the place of journalistic balance based on the presentation of comment by participants themselves

5. The use of selective language, such as labels, which supports the network's 'angle' and narrative style". (Barton & Gregg 1982, p 185)

Authenticity and authority were enhanced by the presence of reporters 'on the scene'. The predictive pattern was established by speculating about

reprisals and was supported by irrelevant visuals of Israeli armed vehicles from unknown sources, probably file copy. When the incursion into Lebanon began, the predictive pattern continued with an inference by Cronkite, not Prime Minister Begin, that it would be a long stay for Israeli troops. This turned out to be misleading. Throughout the week, subtle mismatches of unsourced visuals and reports maintained the prediction. Viewer expectations had been falsely created and the intentions of some of the parties directly involved, misrepresented. (p 185)

Of course, it is not only television news which is misleading. Programming content is generally and seriously biased towards misinformation in many fields, of which health is one of the most critical. (Gerbner et al, 1981; Lowinger, 1977; Peterson, 1977) But the distortive character of the 'news' illustrates the inherent weaknesses and defects of the medium as an adult educator and also demonstrates its power to seduce and deceive the viewer. The extent to which television is successful in this may be adduced from the Australian Broadcasting Tribunal Research Report -- Television and the Public: The News (1978). Of the 412 people asked "Does hearing about the same news item again on television add anything to what you already know?" 76% said "yes". Those who said "yes" were then asked what television adds to their knowledge of the news. Of all the responses 46% said "can see it", 32% said "more detail" and 9% said "explains it better". Perhaps we should not be surprised that 46% of the population still believes that "seeing is believing". But the other two percentages quoted are a testimonial to the lack of awareness of television's powers of deception. More detail? -- when "the script of a thirty-minute television news show would fit on

a single newspaper page with room to spare". (Weaver -- Foreword to Patterson & McClure p 19)

Such statements annoy Westin, veteran TV newsman and producer. (1982, p 56) He has, however, provided a detailed picture of how the news is produced. The critical dimension underlying the evening news is time, split-second time. Time determines the relation between words and pictures: "the fewer words the better, if a picture can do the work, let it". When a correspondent has to add words to a picture which fails to convey the essence of a story, time is wasted (p 50). The second constraint is that "television news cannot demand that its audience work in order to understand content" (p 50). Westin, like Mander & Price, understands the medium intimately although he may not know the underlying mechanism for its unique inability to promote learning. But the attention of the audience must not be allowed to wander and various devices, such as shifts between anchors accomplish this. He documents the pressures under which the news team operates in order to meet the demands of their medium and the way in which for example, a visual sequence will be hurriedly put together from file copy to accompany a breaking story. (p 54)

Despite the fact that comparisons of TV and newspapers annoy him, he admits that TV news is "simply an illustrated headline service" and that "what appears on the air partly determines how the viewer looks at the world". (p 56)

> "So an evening news program cannot be a person's sole source of information. There are other television news and current-events broadcasts on the air that provide more background or discussion. There are newspapers, news-radio broadcasts, newsmagazines, books on current affairs. All these sources must be relied upon if one is to be truly informed. If you

> rely only on the television newscast, you are woefully ignorant". (p 56)

From the horse's mouth!

This is something of a tragedy when we consider that the viewers of both network and local news have a strong sense of obligation to keep informed (Poindexter, 1980) and thus be competent citizens of a democratic state.

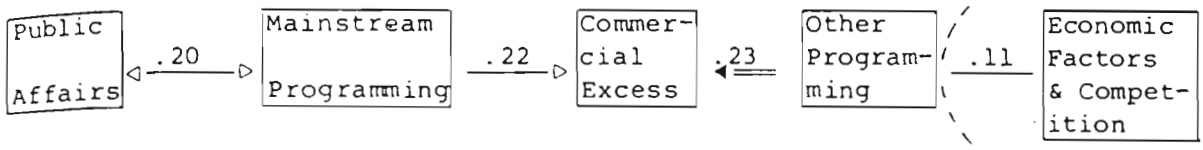
It has also been noted that "there is hardly an aspect of the scripting, casting, and staging of a television news program that is not designed to convey an impression of authority and omiscience". (Weaver, as above, p 89) "By the example its narrators set, by the 'truths' they so confidently proclaim, and by the extraordinary power of the medium itself, television journalism encourages its viewers to entertain a badly inflated notion of how much it is possible to know and to do in the real world". (Weaver, as above, p 91) Westin admits that "the look of the broadcast or the personality of the anchor helps keep audiences tuned in" but he also insists that quality of coverage is important. The emphasis on personalities is undoubted but the latter is not, as he himself conveys by the discussion of writers' attitudes towards reports from the field. Cronkite was magic; it didn't matter what the rest was about. (p 51) The utter disrespect with which the U.S. networks hold the heavy viewer, who in terms of viewing hours is outdone probably only by the Japanese (Stokes, 1982), has been noted by Smith (1979). Prime time is aimed at "the wad", "Billy & Mary Six-Pack". From Paul Klein, NBC's iconoclastic chief programmer -- "Look, most TV watchers are like a kid with candy that eats and eats. They're nice people. They have good jobs. But they don't want to think. Dummies, I call them". Westin's book prompted a review of television criticism which, as is the purpose

of all criticism, was to enhance the educational value of the original. Powers (1982) makes two relevant points. First, television's style ha become so endemic that its critics must "compete directly with the tube itself" (p 63) not questioning the fact that ratings and dollars should determine what information we receive. As has been frequently noted in the schools, teachers must emulate the show biz format if they are to hold student's attention, then critics too, have neglected their fundamental analytic role in relation to their subject matter. His second point is that television has similarly forced television critics into an "endless present . . . (which) is perpetually dingy". (p 63) The never-ending 'nowness' and ahistoricality of TV has disposed of 'then' and 'next' (Baker, 1982) leaving another sense of vacuum or drifting.

Public broadcasting in the U.S.A. charged with an educational mission an in many respects similar to the Australian Broadcasting Corporation, has also been shown to be ineffective as an adult educator. The audience remains small, already well-educated but not dedicated to public television. Watching public broadcasting is considered to be 'hard work' compared to watching commercial. (Le Roy, 1980) Hezel's answer to his question "can it teach?" is a hesitant "has not been entirely successful". (p 177) It would appear also that public broadcasting is moving towards some convergence with the commercial stations. Data provided by Prisuta (1977) yields the following graphical solution (Figure 7.2)

Figure 7.2 Pressures & Trends in Public Interest Programming
(from Table 1, p 327)

A. Integrated Solution*

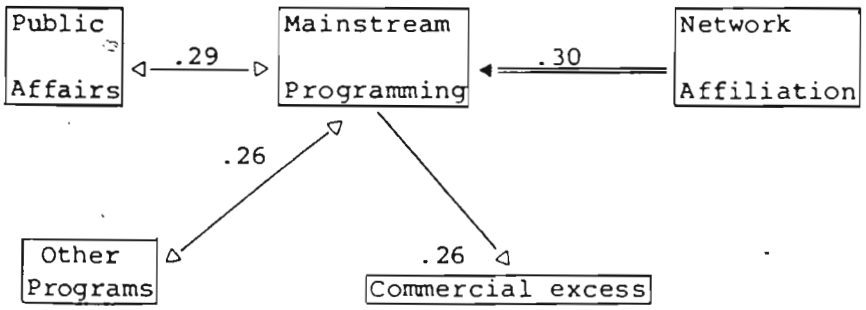


* The cluster of variables 9 and 17 (investment & profit ratios) dropped below significance level early in the analysis and is not shown here.

The immediate feature to note is that the correlation between Economic Factors and Competition and the rest of the graph is less than $p < .05$ level ($r = 0.14$) and is therefore not an influence on programming. Prisuta's analysis (step-wise regression) also showed that economic factors with the exception of network affiliation did not determine programming, but claims some contribution from competition. However, this variable explained only 10% of the variance and quite clearly from the causal path analysis is unrelated. None of the commonly accepted hypotheses for determination of programming are supported. Let us now disaggregate the core of the graph (Figure B).

Figure 7.2B

B. Disaggregated Solution



Public Affairs consists of the number of hours of public affairs programming and number of public service announcements in the composite

week. Mainstream Programming is the cluster of hours of news, local programming in and out of prime time and total program hours. Other programming excludes news, public affairs, entertainment and sports. No further detail is provided. Commercial Excess is defined as the number of hours in which a station exceeded the guidelines on maximum number of commercial minutes, in the composite week. Network Affiliation is a dummy variable identifying the affiliation of the station to one of the three networks. As it is difficult to imagine the dynamics whereby various programming types or commercial excess would lead to network affiliation, I have, as did Prisuta, assumed that the independent variable is network affiliation. Some process then of homogenization is taking place with the influence or pressure of affiliation. Public broadcasting affiliates are diversifying their content towards the network with resultant increase in commercialism. Commercial channels have also moved to a greater proportion of news and current affairs albeit with a heavy entertainment bias. Should these trends continue, the ultimate result will be that public and network TV become indistinguishable.

Now contrast this reality with the dream written on the ninth birthday of American adult education by television. "Educational television . . . has carved out a distinctive place for itself . . . it has the advantage of being able to use the full strengths of the medium for education. More than print, it has the advantage of being able to offer sound and visual representation, as well as words." (Schramm et al, 1963, p 166-7). The audience also was "the kind broadcasters dream about -- the best- educated, most articulate, best-informed, most upward-mobile, culturally and civically most active persons in the community." (as above, p 166) But the writing was on the wall even then. "It must be

acknowledged, however, that ETV has never quite fulfilled the dream that some of its founders had for it -- that it would become the school and the university of people who had little opportunity for education. Its audiences are highly skewed toward the people who have had opportunity for education". (p 166) In 1963 nobody, let alone Schramm et al, wanted to read that writing. Today, there are fewer, thanks to its influence, who are capable of reading at all. (see below)

The trend line is clearly marked. There should be little difficulty in tracing it through the vagaries of genuine illusion or paradigmatic ideology. Nor should we fail now to distinguish the lowest common denominator from liberal democratic structure and function. Television's 'cultivation' or enculturation bends the mainstream position toward a 'hard line' on minorities and personal rights. Gerbner et al confirm that those "addicted to TV viewing are not typically those who have been on the streets seeking more involvement in the decisions that affect their lives. Nor, in our experience, those who initially provide leadership in democratizing work places". (Emery & Emery, 1976, p 133) Simply put, as Mander (1978) does, TV is inherently anti-democratic. Arnove (1975) agrees. But even in the so-called democracies, a process of implicit propagandising is occurring, with the elimination or 'blacking-out' of controversial issues and the presentation of only those points of view which support the ideal image of a country. (Arnove, as above) And a sufficiently high level of dissociation in a community puts the democratic nature of that community at stake. As the democratic community is premised on the assumption of shared responsibility for outcomes, so it will fail as that responsibility is eroded.

4. To Summarise and Conclude on Educational Television

If the five cases represented a fair sample of the educative effects of television, results from other samples should show marked similarities. This review of adult learning from television's principal educational vehicles demonstrates not only the same pattern of results but also discloses many of the common explanatory themes for the sorry report card TV has received -- with children; failed -- with adults; failed. While there was always a question about children's ability to make best use of this 'informative' medium, there should remain now little doubt as to where the fault lies.

(i) The second heaviest viewing nation on earth has proven itself to be abysmally ignorant of, and insular in relation to the outside world; even of those parts with which it is intimately connected. Using even recognition, tests of 'knowledge of' does not affect this conclusion. Television does not lead to knowing and it does not motivate interest in or desire to know about the wider world.

(ii) For democratic nations the long term effects of dissociation are worrisome-apathy, cynicism and insecurity are incubators of authoritarianism.

(iii) The question of the extent to which the American voter has failed the political literacy test of 'image versus issue' is unresolved. Weight of evidence perhaps indicates an edge to image and November 1984 may provide a test of sorts. Reagan, the Great Communicator, bears out Spero's analysis of political advertising and affect control. Should he be re-elected, the victory will belong to television.

(iv) Only one interpretation or hypothesis satisfactorily explains the coherence in the data. This is the Organizational Interpretation which argues that the nature of television as it has evolved is determined by inherent technological and externally imposed constraints. All heretofore existing distinctions such as news/entertainment, or public (national) and commercial are blurring under the weight of its technological imperative.

(v) This guarantees a news format with a minimum of information, sufficient only to satisfy the most superficial analysis or judgment that 'it is the news', floating in a flat sea of warm affect. Such an emotional bath simultaneously adheres its viewers to the set and makes the contrast to the impressionistic nasty world outside. The combinative effect is dramatic; medium and its contingent content conspire to a low common denominator.

(vi) The medium is the message (massage). 'Stay tuned!' And stay inside! Which many in the U.S. do. The percentage of registered voters who vote in general elections has been steadily dropping in the U.S.!

The data on adult learning gives more emphasis to the learning from television's social content but this portrays a strange world. Positive or negative, the world according to television bears little relation to that in which we walk, live and work. Television has failed to educate in the sense of conceptual understanding but it does impress, influence and persuade. All of these functions are educationally legitimate but the making of genuine choices which education has claimed as its imprimateur is not encouraged by television. The historical convergence

of an education system appropriate for a type III environment, the development of CRT technology, and a totally misconceived theory of perception led us to believe that television could instruct. From that erroneous belief we have moved to today's circumstances where unquestioningly, millions watch TV news because they wish to be well-educated citizens.

Clearly, people do not even remember many of the facts about this distorted world; it becomes a vague, shadowy place. Direct perception of the real world is adaptive; it leads to a sharper and deeper understanding which ultimately promotes the quest for wisdom and ideals. That is our hallmark of human adaptation. Our peoples are watching television and ostensibly 'perceiving'. But by all the criteria outlined in Part I they are neither remembering nor understanding. They are merely being 'formed', 'in-formed', rather than instructed or helped to grow as purposeful people. (Emery & Emery, 1976, p 48) We must conclude that at the ontogenetic level television is antithetical to learning.

Chapter 8 The Distinctive Competence of Television: Product Marketing

The thesis proposed in this chapter is the mirror image of that which led us to explore television's failure as an educational medium. Our conceptual analysis led us to a contrast between education and marketing which should show evidence of television's maladaptive influence and in particular, its influence on, or production of different knowings and no knowings. The operation measurement of these key knowings has been either recognition or recall and here we examine these specifically, within a field of data concerning the nature of the medium and its successful exploitation for product marketing.

We will also examine the data in order to test the concept proposed by Emery M. in 1982 which goes by the hideous name of 'productisation', the transformation of an idea into a product. Arguing from the same theoretical framework as employed here, the concept is perceived as an analogue of the transformation of potential to kinetic energy.

> "TV operates directly on that parameter of decision making called probability of choice by inducing a sense of familiarity with the product. But this familiarity and positive acceptance of the phantasy used as a means to this end is strictly only a potential. The recognition of the product is the trigger, in the sense of changed informational environment, which effects the transformation, thereby causing a chain reaction through the parameter of relative intention to the act of buying itself: the kinetic energy." (Emery, M. 1982, b, p 101)

The extent of the success of the ad in being internalized will account for much of the impulse buying, where probability of choice totally dominates the 'decision-making' process. But without a tangible product the basic mechanism of

TV ——→ familiarity (potential) ——→ product recognition ——→ buying (kinetic)

cannot operate.

It is necessary therefore to also investigate the evidence regarding point of sale advertising and its relation to that of television. Clearly the nature of the product and its packaging should be important elements in this equation if the potential to buy is to be created and mobilized.

From all perspectives then we must examine the nature of the medium and the ways in which it practices its magic. With this base we should be in a good position to assess whether or not television can be put to more socially responsible purposes than many it would appear to be serving at the moment.

1. An Affectual Medium

McLuhan's famous, and shocking, pronouncement to the effect that television was an audio-tactile rather than visual medium was re-examined by Emery and Emery in 1975. Using the dimension of continuous versus particulate, they showed that the very nature of television as discrete fragmented elements is sufficient to render it a non-visual medium (Emery & Emery, 1976, p 132-3). The weight of evidence concerning television's failure to educate or convey conceptual information is confirmation of this conclusion. Visually overstimulating, the medium reduces the cortical activity which could transform the particulate into the continuous and meaningful. But as we see, there is a residual which can be measured by recognition and this is tied directly to affect. Emery & Emery also noted that affect and music are more the province of the right hemisphere and its stronger connections to the 'old' limbic brain.

(p 89-93) A small pilot study of the difference between black/white and colour TV showed that there was evidence of limbic brain function in relation to television which emerged in the form of archetypes (Emery, M. 1978). Other research (Madson, 1976) showed that music may constitute its own reward and aid the learning of other simultaneously presented material. We expect from our theoretical explorations and this empirical data that television producers would have noticed the particular contribution made by colour and music on TV to its powerful affectual nature and used these to effect in the marketing venture. Some such evidence is available.

That the interrelations of reduced cortical function, laterality, affect and recognition are well known to advertising agencies is made explicit by Nelson (1983). She reviews the original work by Krugman (1970) and Emery & Emery (1976) and notes that this and subsequent research has been avidly adopted by agencies. Music and lyrics are carefully chosen for their affectual qualities which will guarantee recognition over long periods of time. It is known as the "resonance theory" --

> ". . . an ad is effective if it 'strikes a responsive chord' or resonates with the deep feelings of the viewer or listener. 'Certain stimuli, in the proper context, can recall experiences that we could never remember at will,' . . . 'I do not care what number of people remember or get the message. I am concerned with how people are affected by the stimuli." (Schwartz, cited by Nelson, as above)

Schwartz is confirming that right hemispheric learning need be neither conscious nor verbal. Nothing matters except that a powerful, positive affectual link is created -- and the product is on the shelf. The viewer's affect system is packaged and sold back to them. In our language here, the ad must capture the personal parameter of probability of choice. And as another in the trade noted, advertising mirrors not

how people are behaving but how they are dreaming. This reinforces the point: probable effectiveness is simply not relevant. Information, log and analysis are the enemies of a successful TV commercial.

(i) Music

Many have noted that jingles are particularly favoured for commercials, particularly those targeted at children. It also appears clear that it is most often the musical component of a spot which is spontaneously remembered, in the absence of any stimulus. Catchy melodies from ads are frequently hummed or whistled without any consciousness of their origin. Dudar (1983) who certainly has no love for Music Television (MTV) and calls it "the most exalted junk to be found on the box," is however aware that the medium has finally found its feet. The "real magic" of MTV are the 'concept' tapes -- "stylish flashes of images, fragments of action that may or may not suggest an idea, an emotion or event." She makes the link explicit: "After a week of watching, I was ready to run out and buy Milky Ways and advanced-formula Clearasil by the gross."

Empirical data on the role of music in commercials is provided by two studies by Gorn (1982). In the first, consistent with a conditioning interpretation he hypothesized that subjects would prefer an unexposed versus exposed product if the exposed product were paired with a negative unconditioned stimulus. In contrast, where the conditioned stimulus was paired with a positive unconditioned stimulus, subjects would choose the exposed rather than unexposed product. (p 96) Results were exactly as predicted. The music which induced positive affect significantly influenced the choice of pen towards that advertised; the pen associat wtih the disliked music was rejected in favour of the pen which was not 'advertised' at all.

There are several significant points to note in this study. Firstly, the ad was not shown on television but as a slide, accompanied by the music. Nor are we told through which medium the slide was displayed. However, in this first case the difference may not be critical as the result is what we would expect from a television demonstration anyway. The affectual properties of music should be powerful via any medium. The second feature is that the choice was an actual behavioural one, ingeniously designed. We are not dealing therefore with the mediating effects of other processes as they may occur through having to complete a questionnaire. Thirdly, Gorn asked his S's why they had chosen that colour pen rather than the other. Sixty-two percent thought they had a reason but only 0.04% of these said that the music had been an influence. The study is supportive of previous research which showed that people are simply unaware of the impact of 'unconditioned stimuli' on their behaviour. Self-reports of reasons for choice reflect a construction much more logical, rational and product-related than the behaviour itself.

Point four is central to our learning from this work. Gorn's first design tested the classical conditioning hypothesis of influence against Krugman's low involvement theory in which exposure to a TV commercial is sufficient to trigger a decision/purchase. Krugman's hypothesis is of course nearly identical with the argument here that television operates primarily on the parameter of probability of choice, producing a sense of familiarity which need not be conscious. Attitude change as an intervening variable is not needed. (Gorn, 1982, p 95) Gorn's data has nothing to say on this score; attitudes were neither mentioned nor could have been relevant given the design. Gorn claims that "there were no exposure effects in this study" because exposure combined with disliked

music produced a choice for the non-exposed pen. If TV is however, as I am suggesting here, an 'affectual medium', then the experiment is no test of exposure: there would need to be a condition of exposure per se, wihtout music of any persuasion. What Gorn has here is a test of two econiches, one of positive, and the other of negative affect. Clearly the S's chose the product within the positive econiche and rejected that associated with negative affect.

We can now take the argument one step further by stating that within the open systems, naive realism, paradigm, there couldn't be a distinction between the conditioning and exposure hypotheses at all. There will simply be a perception, or an awareness with an affectual tone. This is related to the next point and discussion of the second experiment but we must additionally note that television commercials simply do not use negative affect unless it is briefly for the purpose of contrast with the U.S.P. As Gorn himself notes " it might be very difficult to isolate (a real) information based commercial totally devoid of such unconditioned stimuli as attractive colours or music." (p 99-100) In other words, in the real television world, exposure alone is not an option. Liking, warmth, and an occasional touch of excitement are the only, very carefully calculated results of creative copy design and testing. On television commercials, tested and found-to-be-disliked music does <u>not</u> appear! Producers understand well the systemic nature of television.

The final point serves as a bridge between this argument and Gorn's second study. "In testing for classical conditioning, product information in the commercial must be kept minimal, otherwise the unconditioned stimuli (music) might merely be arousing interest in product information." (p 95) No information was therefore provided about

the two pens and this is as we see the ideal for television commercials. The point is acknowledged by Gorn on page 98, and it thus emphasizes the power of 'background factors' such as music to create the econiche within which probability of choice has maximal effect. There is a "primacy of affect" and "people may not always be actively processing information and evaluating situations." (p 98)

To test the importance of product information in this context a second study was designed in which the beige pen was shown with liked music and the blue was accompanied by three pieces of information. Half the S's knew they would have to make a decision about which pen to choose; the other half didn't. Those who had prior knowledge of the choice chose the blue pen (71%) while those without, chose the beige (63%). Being in a decision-making mode significantly reduced the impact of the music and positive affect. It is here that the above points become critical. Presentation by slide could not affect the reception of information in the way that television appears to do; only 1% of television commercials provide three pieces of information (Resnik & Stern, 1977) and it is doubtful if many of the inadvertent audience for TV spots are in a decision-making mode at the time of viewing. Gorn is clear on the latter two points and concludes: "that an audience may be largely comprised of uninvolved potential consumers rather than cognitively active problem solvers. Reaching them through emotionally arousing background features may make the difference between their choosing and not choosing a brand." (p 100)

But this second study simply cannot be generalized to television advertising for the simple reason that even when information is presented on TV, it is rarely perceived. We would not therefore expect a reduction

in the impact of music and affect. A little further support comes from a former director of news programs at CBS, who is currently a ne executive at ABC. "We learned that music is one of the most manipulative tools at our command." (Westin, quoted by Bedell, 1983) Bedell continues: "Mr. Westin notes that background music was banned at CBS News, but he declines to add that it is now employed at ABC." She also notes that he declines to explain how music distorts reporting or how and why it is used today.

While the industry may be canny in not saying too much about how the magic is produced there is evidence that the audio-tactile properties of the medium are understood and exploited.

Low involvement, music, scenery and other background factors have als been discussed by Shimp & Preston (1981) in the context of the non-deceptive consequences of evaluative advertising. They argue that deceptive beliefs cannot result from inadequate information processing because the consumer's semantic 'memory' has not been affected. A more likely outcome they suggest, is the formation of episodic memory described as "memory for an event that has occurred at a particular time and place and in a unique context." (Weingartner et al, 1983, p 380) Because this form of remembering is image-based, "a point-of-purchase display or other behavioural trigger activates the consumer's episodic memory relevant to a particular brand." (Shimp & Preston, 1981, p 29) Promoting such perceptual activity "is an attractive alternative for the advertiser whose brand fails to possess any uniquely promotable advantage over competitive offerings." (as above, p 30) It constitutes a fairl risk-free strategy compared with providing information and although Shimp & Preston do not emphasize the point, it is clear from their citation of

Gardner et al (1978) on page 30, that the strategy is dependent on positive affect. Gardner et al found that the attitudes of subjects towards all four products advertised thus were more positive than with other strategies. Informative commercials simply do not pay off on television. What is not mentioned in Shimp & Preston's discussion is that the industry is exploiting that particularly distressing failure of remembering, demonstrated in one of the final stages of alcoholism; Korsakoff's disease (Weingartner, et al, 1983).

That the medium has unique characteristics has not yet been recognized, let alone accepted, by the academics in marketing although obviously the industry proper is well aware of them. An example is provided by Calder and Sternthal (1980). Adopting an information processing perspective on the problem of commercial wearout they attempted to build upon a previous study which showed cognitive responses or information processing mediating the wearout. As they report their data was "difficult to interpret" and "troublesome". (p 185) They failed to obtain direct support for the mediational role of cognitive processes. The previous study used print ads and they used televized. What Calder & Sternthal do not consider as an explanation is that there was much less information processing occurring with television viewing than when people looked at or read print commercials.

For several years now research has continued on time compression of commercials. Results in terms of both aided and unaided recall are mixed and at times contradictory (MacLachlan & Siegel, 1980; Riter et al, 1983). These studies confirm however that 12 seconds is sufficient time in which to make a memorable impression. (MacLachland & Siegal, 1980) In attempting to understand their findings MacLachlan & Siegel mention

that time compression increases viewer liking. While, as we have seen above, attention is not the determining factor in comprehensi (remembering) as they assume, the motivational effects of positive affect could well be. Even a speeding up of 25% which is undetectable at the conscious level could provide that little extra excitement at the perceptuomotor level which unlike information is not sufficiently disturbing to be experienced as irritating. Riter et al specifically included a test of motivation which was successful in showing an effect in two out of three cases but a more sensitive and behavioural test could certainly be devised.

(ii) Humour

Another dimension of the affectual dominance of television as medium is of course humour. Children in infants grades "overwhelmingly preferred humourous commercials." (Donohue, 1975, p 43) So apparently do adults (Koten, 1984) Humour is an operationalization of the positive affects of enjoyment and excitement.

A recent study has reviewed much of the literature about the role of humour in persuasion. As Cantor (1981) explains "it seems intuitively plausible that humour should help" and the theory expoused here would expect that it would be a supporting element in creating a positive affectual econiche. The literature however, including the latest experiment by Cantor herself, is inconclusive. It is possible that this derives from a faulty interpretation of 'humourous' and a failure to distinguish between smiling and laughing (Tomkins, 1962, p 369-395) Laughter is more intense than smiling and is triggered by a high density of stimulation (as above, p 370-371). While the neurophysiological affects of television are such as to preclude a

generally high density of stimulation, certain instances of humour may produce a density resulting in laughter, and this like information and other extreme phenomena will function as distractors. For effective TV commercials the goal should be a very gentle smile.

2. The Informativeness of TV Commercials

According to the Advertising Federation of Australia (AFA) "Advertising of children's products . . . is developed to give them information on which to base their preferences and with which to express their interests" (author's emphasis). This has long been disputed by media analysts and some industry renegades such as Mander & Price. Emery argues back from 'golden rule' of TV -- find the unique selling proposition -- they are not concerned to give knowledge about either the range of products within which choice may be made, nor the many dimensions of the class of products that need to be considered. All advertisers "strive to create a brand image around the aspects of the product that are most suitable for TV presentation; not the aspects most relevant to consumer use. As a result, they wage a phoney war around very narrow issues, e.g. whiteness for washing products and yumminess for sweets." (Emery, F. 1979, b) It is not in their interests to provide information for two reasons. Firstly, information is tied to the dimension of probability of effectiveness. Raising the spectre of effectiveness would diminish the power of familiarity arising from the dimension of probability of choice. It is the U.S.P. which is designed to play on this parameter of the choice model and information could encourage the viewer to question this. Secondly, in 1962 Emery and Cass-Beggs demonstrated that two sets of evaluative criteria operate while one is viewing a commercial. The first relates to the intrinsic truth of a commercial as a fantasy. The second relates to the extrinsic

truth in terms of the viewer's mundane experience in the real secular world. The first showing of the commercial was evaluated in terms of real extrinsic information. Repeated showings were evaluated in terms of intrinsic value as fantasy creation. The informational content increasingly served as an irritant and led to negative feelings about the commercial and hence presumably to the product. Their suggestion was "that the early stages of a campaign should attend to and remove sources of irritation which derive from evaluative criteria -- the concern with extrinsic truth . . . The phantasy must be continuous."

While in 1962 it was not possible to say anything about the effect of a commercial on sales as "little is known of the relationship between sources and quality of irritation and the effective acceptance of the message," (Emery & Cass-Beggs, 1962) it is now possible on the basis of evidence contained herein to hypothesize that information is irritating because it tends to perturbate the message provided by the medium. Invoking probability of effectiveness will interrupt the flow of a reduced cortical level of activity which is experienced as pleasant and relaxing. Whipple and Courtney (1980) found that for TV commercials, exaggerated and unreal presentations of the sexes, whether they portrayed traditional or progressive roles, caused significant consumer irritation. (p 58) These, like information, apparently jolt the viewer and disturb the placidity of the warm positive affect. I argue therefore, like the Senate Standing Committee on Education and the Arts "that television advertising is pervasive and has unique powers of persuasion, attitude reinforcement and dissemination possessed by no other mass communications medium and that we cannot accept that advertising teaches discrimination or choice." (as above, 1978)

Statements such as those made by the AFA about information content are frequent and widely believed: evidence relating to the issue is more rare. Such evidence does, however, exist and it supports the critics. An American study looked at the actual information content of a sample of advertisements, using fourteen evaluative criteria for information. These included information about price or value, quality, contents premium, nutrition etc. Table 8.1 summarises the results:

Table 8.1

Quantity of Information Provided Across Product Classifications (from Resnik & Stern 1977)

Category of ad	No information	One item	Two items	Three items	Total
Food	56.9%	30.6%	11.8%	0.7%	100%
Personal care, household & laundray products	55.8	30.3	13.1	0.7	99.9
Institutional; hobbies; toys; transport, other	30.3	43.8	23.6	2.2	99.9

Of all ads, 50.3% provided no information and only 1% provided three pieces. As Table 8.2 makes obvious, food advertisements are more likely to contain no, or less information than any other category. Food is of course a prime target for marketing to children. The Senate Standing Committee (1978) found that 44% of all advertising in the 4.00 p.m. - 6.00 p.m. children's slot has been found to be devoted to fast food, biscuits, sweets and drinks. The AFA claims this is atypical and quotes 29%. We would expect therefore that this product line of ads would be least informative and this has been confirmed in the U.S. by Atkins and Heald. (1977) In comparison with toy advertisements, food ads were less likely to show the product, used more cartoons and less live action film, were more humorous than serious (57% : 8%) suggested high performance

satisfaction, including being 'fun to eat' (94%; 21% specifically mentioned sweetness); premiums were offered a quarter of the tim repetition of the brand name occurred three and a half times per ad on average; and slogans or jingles were used to sell the product in more than 40% of the ads, with musical jingles predominating . In relation to claims of nutritional value they found: no claim -- 63%; reference to general nourishment ('good for you) -- 11%; mention of number of vitamins -- 19%; listing of specific vitamins -- 7%.

The Resnik and Stern analysis has been replicated in Australia. (Dowling, 1980) Table 8.2 gives the comparison.

Table 8.2

Comparison of Australian and U.S. Commercials
(from Dowling, 1980)

	Percent of All Ads.		Percent Informative*	
	Aus.	U.S.	Aus.	U.S.
Food, institutional & personal care products	38	69	60	46
Other	62	31	83	56

*An advertisement was required to contain only one of the informational cues in order to be called informative (p 35).

Australian ads much more frequently contain at least one piece of hard data information than the American, with an overall level of 74% informative compared to 49%, U.S. Dowling attributed the difference to the environment within which the advertising agencies operate; specifically to the much heavier regulation and enforcement in Australia. He does not mention the other cultural differences which would account for the opposing proportions of commercials devoted to food, institutions and personal care, and others. Simply put, agencies know their cultures

well -- Australians are not yet obsessed by the need to eat on the run or by impossible standards of personal hygiene and 'beauty'. Affectually, we are a more enjoyment than excitement oriented culture. (personal communication from Sylvan Tomkins).

These comments also bear directly on another difference found by Dowling. Resnik & Stern showed that prime times for non-informative ads are weekday afternoons and weekend mornings (Table 8.3); precisely those times when children are more likely to be viewing unsupervised and/or when housebound women and children are viewing. And women and children are the buyers: Saturday morning appears to be the outright favourite for selling specifically to children in the U.S.A. (Atkin, 1978)

Table 8.3

Proportion of TV Advertisements Evaluated as Informative

(i.e. containing at least one information cue)
(U.S. and Australia)

Sample/condition	Percentage Informative Advertisements	
	U.S.	Australia
Weekday afternoon	33.3	
Weekend morning	34.9	
Total afternoon	41.3	80.0*
Total morning	46.0	87.5*
Total weekend	48.0	60.0
Total sample	49.2	
Weekend afternoon	49.2	
Total weekday	50.3	69.0
Weekday morning	57.1	
Weekday evening	60.3	
Weekend evening	60.3	
Total evening	60.3	66.6*

*Estimated from Dowling, p 36

The Australian pattern shows a decline in proportion of informative ads from morning to afternoon to evening. There is also little difference between weekdays and weekends. Cultural and climatic factors explain this too. While Australia now has some early morning shows, families and their children are still more likely to be doing something together than watching television weekdays and weekends. Most viewing is done late afternoon and night, and this is when the increasing proportion of uninformative commercials are aired. I suggest the pattern has less to do with targeting specific lifestyles (Dowling, p 36) than it is a case of stations beaming their most powerful ads at their largest audiences. The 'best' commercials provide the least information, allowing the USP to do its work. (Price, 1978)

Australian children aged 8 to 10 years have been found to be generally knowledgeable about nutrition although it was not as highly expressed in their actual breakfasts or lunches. They were less likely than American children to attribute good nutritional knowledge to television characters. Heavy viewers however, were more likely than light viewers to have eaten five heavily advertised foods in the last week, and lateness of viewing predicted poorer nutritional knowledge (Burke, et al, 1982). Other confirmation comes from Jacoby & Hoyer (1982, p 15) who devised quizzes for testing recognition of televized commercials. "The problem of having too much informational content to choose from did not materialize" and they had to settle for a six item format containing only one accurate statement of fact. They note this as in keeping with the finding of Resnik & Stern (1977). Yet other support comes from Pollay et al (1980) cited by Gorn, 1982, p 98.

A study of advertising for new and established products has demonstrated the critical but opposing functions of familiarity and information. Olson et al (1982) found that of several differences, viewers are more likely to empathize with the characters and situations in old-product commercials; in other words, they are old familiar friends. This embues them with more positive attributes such as credibility which are passed over to the product. "Viewers of new-product commercials are more likely to indicate that as they watched the advertising they thought of reasons not to buy the product." (p 28) The other part of the reason for this is that many new-product ads simply contain too much information and thus disturb the affectual flow of probability of choice. As Olson et al point out, new-product commericals "do not have to be overloaded with information describing detailed product attributes." (p 29) This causes viewers to perceive that more effort is required and "it would seem desirable to minimize that effort." (p 29)

In a study of 524 television commercials, Aaker and Bruzzone (1981) found four factors which encompass viewers' reactions to advertising; a 'dislike' factor associated with body taboos, and three positive factors of warmth, entertainment (amusement) and personal relevance which involved useful information. Building on this data base and analysis Aaker and Norris (1982) focussed in on the information factor. They were surprised to find that "a sizable percentage of prime time . . . commercials . . . are perceived as being informative by substantial audience groups" (p 63). A previous study (Bauer & Greyser, 1968) was therefore not confirmed but it had "used a demanding open-ended question." This recall would have required conscious search and analysis. Aaker and Norris conclude that this previous research "has probably left an erroneous impression among many who did not consider

carefully the methodology associated with it" (p 63). As television ads do in fact contain little information, it would seem more appropriate t conclude that the 1968 study was both more methodologically adequate by having used recall, and less erroneous than the attempted replication using an adjectival check list (recognition). The fact that so few ads contain information was confirmed by the second part of their own research: "one unexpected and significant finding is that several commercial characteristics thought (by 'advertising research professionals' (p 65)) to be associated with informativeness apparently do not appear in network television" (p 67, with added emphasis). The several consisted of eight out of 19, or 42% of the expected types of informative characteristics. What this study really tells us is that when people are not forced to think about, or carefully attend to the nature of the commercials they watch, they find it easy to regurgitate the message of the industry -- 'we bring you commercials so that you may be informed'. But it becomes perfectly obvious in the next section that the viewers are being neither instructed, nor enlightened.

3. Effective Persuasion Without Information

There is ample evidence to support the claim that television advertising is a powerful persuader to buy and consume. We overview that data here noting that in the face of the previous section, the claim and weight of data create severe difficulties for information-based theories of communication and psychological analyses such as that of Asch (1952) which has proven of inestimable value in designing face-to-face settings (Emery, M. 1982, c, p 182-189)

(i) The Credibility of TV Commercials

Folklore would have it that 'I don't believe a word I hear on TV ads' or 'I don't believe a thing I see on TV ads'. Indeed, Carlile and Leonard (1982) found that television was related by adults as the least reliable source of product and service information, inferior to newspapers, magazines and radio (in that order). Just over half of the respondents believed that 50% or more of advertising messages were deceptive while only 13% believed network news to be equally deceptive. The most common explanation given was the need to sell. This deception they believe resulted in small success. Of six sources of deception, advertising and local newspapers were believed to be the easiest to see through with only 8% checking 'extremely difficult to see through deception'. (from Table 6, p 18). In response to open-ended questions about commercials, two-thirds were able to recall either a deceptive, objectionable or useful one. Commercials featuring demonstrations were considered to be both the most useful and deceptive. Household supplies (paints, cleaners, etc.) was the product area mentioned most frequently, also both as the most useful and deceptive. This survey led Carlile and Leonard to conclude that "most people put their native intelligence and socialization into a consumer culture to good use", and have a critical evaluative attitude towards commercials. (p 21) They are not essentially then a passive and naive audience. (p 19)

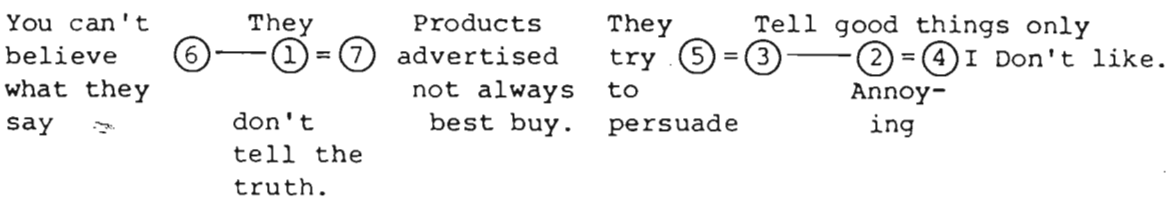
There are some very good reasons still to be skeptical of these conclusions. In terms of the level of recall it is important to note that advertisements in general, not just TV ads were surveyed. The category of household supplies does not constitute a major proportion of ads on U.S. television and it is not among the least informative product groups (Resnik & Stern, 1977).

It is possible that the information supplied in these ads, certainly for those communicated by television and the mention of demonstration indicates these were a substantial proportion, had the effect of disturbing the uninterrupted power of probability of choice and its translocation into familiarity, recognition and buying.

In the course of developing a reliable test of children's attitudes towards commercials, Rossiter (1977) and Riecken and Samli (1981) provide data which shows that at the conscious level, children 8 to 12 years old consistently display skepticism about the content and intent of television ads. Figure 8.1 illustrates the configuration found on the test for TV commercials in general, (Rossiter) and its replication and extension to three product types (Riecken and Samli). The negative interpretation of the graphs was determined by Rossiter's Table 1 which shows all items had negatively oriented distributions and none had a mean which reached the mid-point.

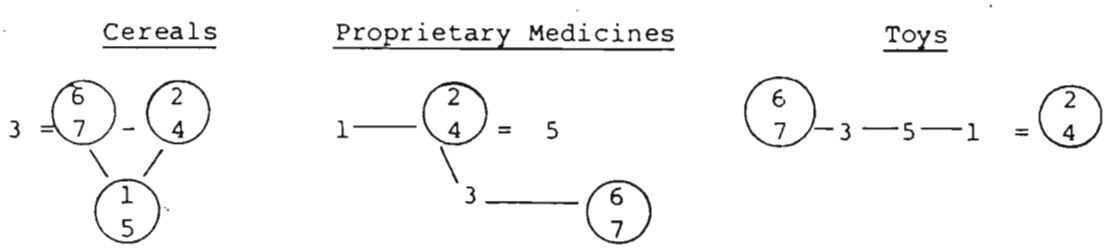
Figure 8.1 Children's Attitudes Towards Television Commercials

A. Original. Commercials in General



B. Replication.

C. Product Type



For television commercials in general there appear to be two clusters, one expressing dislike and annoyance because of the perceived effort to persuade to buy and the other demonstrating awareness of misleading claims. Item 3 ('they only tell you the good things, not the bad things about a product') appears equally at home in either cluster but is more directly tied to the 1-6-7 clusters for product types. For the three examples of product line the clusters cohere but show the same patterning of variables. As Donahue (1975) also found "an unexpectedly large percentage" (9%) of grade one to three children who indicated that they didn't like commercials, one would conclude from this that children of these years would be wary and cautious consumers of TV advertised products. But they're not, as we see next.

This is a paradoxical statement as trust is the fourth of Asch's (1952) four properties of influential communication. TV advertising when purposefully addressed is not trusted, which should be sufficient to destroy it as an effective persuader. But it doesn't. We will address other aspects of this paradox at the conclusion of this chapter.

(ii) The Effectiveness of Television Advertising

Donohue (1975) found that young black school children prefer commercials for food, programme announcements, toys and games and medicine, vitamins, drugs, etc., in that order. But a relatively high percentage (13%) could not recall a favourite ad (p 43). Lack of ability to recall is however, as we see, not an argument against the persuasive powers of television. Indeed, it would appear that increasingly it has been children who make the decision to buy. In the pre-TV era it could be stated: "Children are never mentioned as controlling any of the channels (e.g. buying) although they undoubtedly influence the decisions indirectly through their

rejection of food put before them". (Levin, 1943) The AFA asks what is wrong with children 'discussing' products with their parents and gav evidence that children's requests for sweets succeeded only 27% of the time; their requests for dairy products 66% of the time. (Advertising Federation of Australia, 1979) Donohue (1975) noted that 65% of grade 1-3 boys and 83% of girls said their parents bought items requested by them which he saw as a "surprising indication of little parental resistance to the child's pleadings." (p 44) In addition, at the point of sales, 90% of boys and girls said they 'helped' their parents select purchases. This should perhaps not have been so surprising to Donohue as he quotes earlier research which showed parental yielding to requests at rates of over 50% for cereals and junk food and nearly 60% for toys. (p 44)

Atkin concluded from direct observation in a supermarket that

> "the child plays the dominant role in family cereal selection . . . appear(ing) to rely on pre-established preferences based more often on premium incentives that nutritional featues of the product. Furthermore, the child's reference to the premium was met with a high rate of acceptance by the parent. More than 99% of all cases did not involve an explicit mention of either vitamins, minerals or general health value of the product." (Atkin, 1978)

The major part of the nutritional information in some ads was disregarded in favour of the premium directed towards the children. Similarly, Donohue (1975) found that with cereals, the prize or premium was the reason for choice in an average of 53% of cases of young children. Even when the cereal was chosen for itself, nearly all children reported that taste was the most important criterion. "Apparently, children learn and retain bad preference habits quite easily, in spite of the fact that many cereal manufacturers now stress the product's nutritional benefits." (Donohue, 1975, p 44)

Kindergarten and first grade children were also shown by Palmer and McDowell (1981) to have little understanding of the most common terms adopted to meet the breakfast nutrition code. Using recall throughout, they found that of 'balanced', 'good', 'right kind', and 'big' breakfast, 'big' produced the most consistently high response across food categories. The 'right kind' of breakfast featured predominantly cereal and milk. After viewing a breakfast commercial the children were asked what the televised child had. Seventy-six percent recalled the cereal, 31% the milk, 30% the strawberries, only 12% recalled the toast and 9% the orange juice. No child recalled the bowl of bananas, not in direct proximity to the cereal. The actual breakfasts at home that the children reported were lower on cereal and milk, but the reasons given were predominantly taste related (42%). Thirty percent referred to a mother or other authority and 24% mentioned health. Hunger ranked within the remaining four percent.

Overall, the picture emerging from this study is a bleak one from the standpoints of nutrition or general education. As Palmer and McDowell note, the legal requirements are not meeting children's comprehension as only the most perceptually concrete term 'big' was associated with a nutritionally adequate breakfast. The more abstract terms received a low or biased response. Emphasis on taste, the prominence of cereal and the consistently poor levels of fruits-vegetables responses, all suggest a basis for concern (p 301). Although Palmer and McDowell do not explicitly remark upon it, the discrepancy between the children's recalls and what they themselves eat for breakfast also suggests that the constant bombardment of TV ads for cereal is having an effect. It would not appear though to be a conceptual one, or a healthy one. Just a product-centred one.

Burr and Burr (1977) reach essentially the same conclusion - perhaps a little more sanguinely - about the appeal of nutrition. The children in their sample (2-10 years) were very much in touch with commercial messages on TV and passed on commercial information to parents in the form of a request to buy. The profile they reported for the acceptance of the child's request is given in Table 8.4. In spite of parental objection to use the premiums in child marketing, request for prize or premium surfaced as a strong motivation for parental buying.

Table 8.4

Positive Disposition to Buy and the Nature of Appeal made by the Child
(from Burr & Burr, 1977, a + b)

Nature of Request	Percentage Positive Response	Appeal Impact rate (1 = greatest)
Wants prize or premium	46.7	1 (tie)
Saw it on TV	46.7	1 (tie)
Child asks for product	33.7	2
Puts product in cart	27.5	3
Uses health appeal	27.0	4
Wants boxtop	26.0	5
Says others use it	23.2	6

Although Burr and Burr's study was by questionnaire, the same conflict emerges as does when attitudes are contrasted with actual supermarket behaviour. Despite the fact that parents had more negative comments about the Prize/Premium appeal than about any other, it was the appeal to which they most frequently acquiesced. (1977, a, p 20) They conclude that premiums and "saw it on television" are, in contradistinction to health, effective persuasive tools for children.

Another experimental study (Heslop and Ryans, 1980) failed to confirm the power of premium advertising to children. In their literature review these authors acknowledge that results generally have been mixed and

postulate as explanation for this, several factors. Of these, the age of the children, the realism of the experimental manipulation including a behavioural measure and adequate scope for parent-child interaction, appeared to be most critical. These then were carefully addressed in the current study. Children ranged in age from four to eight years, an actual cereal brand and commercially developed advertisements were used, and during the last stages of the experiment, the child and mother were free to discuss and make a choice of cereal from the available range.

There were three advertising conditions; without mention of premium, promotion only of premium and a midway spot. Most (5/6) results were in the direction of indicating an effect of advertising the premium on prefering, requesting and taking home the cereal, but few reached significance. What is noticeable from Heslop and Ryan's Table 1 is that in almost every case, the short-premium or midway ad was more persuasive than that which concentrated exclusively on the premium. All measures for the experimental group were higher, although not significantly, than those for the controls. "The results do indicate an impact of a single commercial on the child's preference" and repetition had no significant effect although trends were as expected. This is supportive of previous research. (Heslop and Ryans, 1980, p 419)

The authors conclude that cereal advertising and the use of premiums may affect preferences but are less likely to influence requests or purchase by the mother. We are left therefore with the question of why in general such experimental designs generally fail to confirm or replicate supermarket behaviour. One answer provided by Heslop & Ryans is that their premium-commercial-cereal combination may not have been a clearly outstanding market offering. (p 419) Another is simply that the

experimental set-up was not a supermarket and could not elicit supermarket behaviour. Children are obviously excited by supermarket by the variety and "all the silent screaming" (Ward, 1983). The affectual intensity generated within a supermarket is more than enough to trigger a rash of recognising, and excitement past the point of 'good' behaviour. Parents too, may not be immune to all this overstimulation which may account for some of the less desirable instances of parental-child transactions. Certainly no orderly, subdued, view-a-show, pick-a-product and answer-some-questions, simulation can compete on the affectual plane with the real thing, or even one suspects with the normal domestic climate within which requests will be doggedly pursued.

In another empirical study, Prasad et al (1978) showed the extent of a mother's influence in trying to oppose her children's choice. When an only moderately attractive product commercial led to a request, the mother was likely to succeed in refusing by reasoning with the child, but when the product in question appears highly attractive in a commercial . . . all forms of counter-influence fail. Some support has been found for the claim that television commercials exaggerate the virtues of products. Sheikh & Moleski (1977, a) found that boys, but not girls in fifth grade, were willing to pay substantially more for a product when seen on a commercial rather than in reality.

Sheikh and Moleski (1977, b) not only confirmed that children are influenced by TV advertising but showed, using the Story Completion Method, that there is a decrease in acceptance of parental judgment and an increase in aggression in response to their judgment, with ag Similarly, anybody who has ever watched mothers and children shopping in an Australian supermarket would have to doubt that 'discussion' was the

correct description of the interaction following refusals of children's requests to buy.

Reid (1979) has most correctly concluded from his data that the amount of parent/child conflict initiated by television advertising is determined by rules tacitly agreed within the family.

> "While television commercials undoubtedly cause children to make product requests, these requests and how they are handled by the parents are tempered by the total viewing environment provided by that particular family group" (p 23)

The problem is, of course, that other data indicate that there are remarkably few families or family environments characterized by Reid as high in a consumer teaching orientation. There would appear to be many which fall into this low or moderate orientation which features minimal or inconsistent control with few attemps to aid understanding. Robertson's (1979) survey of studies of parental mediation of television advertising indicates that there is, in fact, little resistance by parents and little control over viewing. For example, seventy percent of parents have never seen the Saturday morning offerings. Television advertising , he concluded, "is an important information source for child-oriented products, primarily food and toys. Such advertising encourages requests to parents, especially among younger children. Also of interest is the relationship between advertising and requests for products <u>not</u> oriented toward children," (p 20). And a high level of these requests are successful (p 21). Reid's study is excellent but the conclusion one must draw from it in relation to a mass of other evidence is that the well-ordered family where parental authority is legitimate and calmly taken for granted, is an endangered species.

Greater use and credence of TV have consistently been found among the lower socio-economic strata. This also applies in the areas advertising and nutrition. For both black and white children their favourite advertisements were found to be of food, candy and soft drinks but these commercial were granted greater credibility by black children (Donohue, et al, 1978). Blacks are more likely to say they like TV ads, more likely to purchase a product after seeing it advertised on television and black children are less likely than whites to understand the purpose of commercials. (Poindexter & Stroman, 1981) A case of further disadvantaging the disadvantaged!

Robertson and Rossiter (1977) found that TV advertising has its greatest effects on younger children, especially those who are most exposed to it and who lack strong alternative reality checks from peers or more highly educated parents. Lambo (1981) similarly found that awareness of the relation between sugared products and dental health improved somewhat between grades 1 to 6. But she also discovered that

> "knowledge alone does not lead to appropriate behaviour. That no relationship was found between dental health knowledge and the sugar-containing nature of the children's favourite cereal, snack, or treat suggests that other factors enter into the decision-making process. There is no evidence which directly points to commercials inducing inappropriate food selection. However, advertisers employ sophisticated promotional techniques designed to persuade the audience to want, desire, and buy their product. It may be that advertising induces or at least contributes to the development of a behaviour even when knowledge would contra-indicate that behaviour." (p 106)

We may query the extent of her literature survey but her empirical data is straightforward -- rational, 'knowledge about' is no match for persuasion by television.

Persuasiveness in relation to children has been discussed by Rossiter (1979) who came to three overall conclusions. Firstly, we cannot agree that "exposure to TV advertising does not make children more cognitively or mentally susceptible to persuasion." (p 52) There is certainly sufficient evidence contained herein to cast doubt on this. Nor do we find it possible to agree that the data suggests a rational model of the choice behaviour of children. We reject therefore his 'admonition'. But, we do agree with his second conclusion:

> "children's increasingly negatively expressed attitudes toward TV advertising do not mean much. Most adults say that they dislike TV advertising, but study after study (or a simple pantry check) shows that the same adults continue to be influenced by it. Children are no different; they merely acquire an adult-like attitude against TV advertising as a social institution, an attitude that bears little relationship to advertising's actual effects." (Rossiter, 1979, p 52)

It simply doesn't matter whether the audience is originally favourable or hostile. Winters (1977) demonstrates that "it pays to advertise to hostile audiences if you don't want still more of them to become hostile." (p 12) As we would expect, in the course of developing and testing their campaign, Standard Oil discovered that TV was the best buy of media and ended up with a TV-only presentation (p 15)

Perhaps what Rossiter meant to say was:

(a) the medium is persuasive; they do go out and buy, but
(b) people's attitudes towards TV advertising are negative when measured at the conscious verbal level; and therefore because (a) and (b) do not fit easily together
(c) we must propose a less than 'rational' model of the interrelation between the television 'stimulus' and the purchasing 'response'.

Rossiter has chosen to stay at the superficial level of report within the old paradigm. As we saw with the academic educationalists, this may not

exactly be the best perspective from which to predict or judge human behaviour.

4. Recognition and Recall

Here we examine studies which bear directly on the difference between these measures and point to the underlying framework of knowings and consciousness. For the marketing profession, recognition and recall are explicitly critical tools as they should be in education, but this is no guarantee that they are well understood or employed. If we can however, obtain a clear analysis of these dimensions this should throw further light upon the source of television's commercial success and validate the hypothesis that there is a process of choice so heavily weighted towards a sense of personal fittingness or belongingness, that it is inaccessible to consciousness and therefore resistant to rational argument.

(i) The Difference Between Measures made by Recognition and Recall

As we saw above, the usage of 'recognition' and 'recall' has been corrupted to the point where they are used interchangeably and there is little appreciation of the fact that they refer to distinct phenomena. Such sloppy terminology has for example, destroyed the validity and usefulness of a study of 'feeling' and 'thinking' ads via TV and magazine. (Zielske, 1982) The "proven-recognition" measurement was fundamentally a test of recall: after a second viewing, women were asked if they remembered seeing that particular commercial during the day before's experimental program (recognition) and if 'yes' she was asked to identify the brand (recall). The day-after 'recall' measure consisted of asking the women "during the preview did you see the commerical f (product category)?" (p 20) This is recognition. Some further aids were given after an initial failure. "Recall was credited -- even if it were

generic and could have come from any commerical" (p 20). Thus the first measure is confounded with both recognition and recall, and the second is recognition. This study which could have supplied some excellent clues as to the learning and decision-making processes involved in informative (rational) and feeling ads, serves only as a lesson towards the reformation of marketing research. As the wrongly labelled 'recall' test was "the standard Audience Studies, Inc. technique for television day-after 'recall'" (p 20) we can expect that many such studies will be reporting data for recall that is actually recognition. So confusion in the literature will be even further generated. For example there is one significant difference in Zielske's data.

Table 8.5

Difference between Television and Magazine for Thinking Ads
(from Zielske, 1982, tables 3 and 6)

	Thinking Ads		
	TV	Mag.	
Confounded	37	39	$x^2 = 4.49$
Recognition	31	14	$p < .05$

Table 8.5 shows that for thinking, presumably informative, commercals, magazines were remembered better with the measure which contained recall and there was little difference between the two with televized ads. Had this table been presented with the terminology as given, it would have told us that recall was far inferior for measuring remembering from magazines which would have been a surprising result indeed. Another which just failed to reach significance ($x^2 = 2.18$) would have told us that thinking ads on TV were remembered better than feeling ads on TV and better than all ads in magazines when recall was used; again a very surprising result. But of course when we know that the recall test was

actually recognition and extremely general at that, the result fits both conceptual expectations and other empirical evidence.

In a study of adolescent awareness of brands and slogans, Keiser (1975) used separate measures for each. For brands, the adolescents were asked to give the type of product which is identified with a particular brand name, e.g. Ultra-Brite. This is a fairly clear recall measure. Respondents were then asked to complete ten slogans. This is not a clear-cut recall. As the slogans are so simple and were mostly provided, leaving no more than a single word to be completed, the test is really closer to recognition than recall, although still a doubtful case. Keiser found differences between brands and slogans which are shown in Table 8.6

Table 8.6

Correlation of Brand & Slogan Awareness with Media
(from Keiser, 1975, Table 3)

		Recall Brand	Recognition (?) Slogan
Print:	newspapers	.16	.16
	magazine	.20	.19
TV:	weekdays	-.13	.06
	weekends	-.14	.07

As Table 8.6 shows, print was positively related to both the recall and doubtful recognition measure but televiewing was inversely related to recall and directly related to recognition. This is precisely as we would expect but was contrary to Keiser's hypothesis (p 40). Print is a high involvement medium; that is, one demanding awarenes if not consciousness. This may be somewhat dismaying for advertizers but I suggest that they need not worry. Had Keiser used a recognition test for brands, he would almost certainly have found a positive correlation

between televiewing and brand awareness. Television as we saw in the chapters on education simply does not provide the learning which recall attempts to capture.

An excellent test of the differences obtained by using tests of recall and recognition is provided by Butler et al, 1981. Their purpose was to replicate previous studies of children's discrimination of programme and commercial, and evaluate techniques used to separate the two. Eighty preschoolers watched four constructed video tapes of 'Captain Kangaroo' interspersed with commercials. Before viewing, the children were asked a series of open ended questions about the nature and purpose of commercials. Similar probes were made during the viewing and also after. These questions measured their verbal level of awareness, or more accurately, understanding of the difference between programmes and ads. During the viewing the children were asked either to indicate when a commercial came on or when something different came on, dependent on the understanding shown by their answers to the pre-exposure questions.

Recognition tests showed that 63% of the younger preschoolers and 80% of the older recognized all the program segments while 70% and 90% identified all the commercials. They were less successful in anticipating commercials with the separators. The younger group did not give sufficient responses to analyze and only 30% of the older children responded. However, the auditory announcement was significantly more successful than the visuals or blank, which is what we would expect from an audio-tactile medium.

By recall however, it was found that children simply do not understand the difference between programmes and commercials. Sixty-eight percent

of the younger group "could not verbalize an awareness of what a television commercial was, and 90% did not know why they were shown on television. Also, 90% could not verbalize the difference between a programme and commercial" (p 56). Increasing age brought slightly (significantly) higher levels of understanding on two of the questions. But the difference between recall and recognition is outstanding. Young children know they are watching different entities but have no concept of the difference or in particular, of the commerical intent of advertisements. A previous study cited by Butler, et al, argued that young children were responding only to the different perceptual features of the two genre and Mander's figures on technical events support this interpretation. Similarly, children of this age appear not to be able to utilize 'separators' which is a logical finding given that they cannot conceptualize the difference between the programs and the ads. Certainly at this stage of development, recognition (percept) and recall (concep are animals of different species, at least when it comes to televiewing. No wonder then that rational argument against purchase at point of sale is such a dismal failure.

Donohue et al (1980) reached a different conclusion but it is much open to question. Two to six year olds watched a cereal commercial and then chose one of two pictures indicating "what Toucan Sam wants you to do". On average 80% chose the correct picture of a mother picking Fruit Loops off the shelf. It would appear though that this non-verbal recognition test was for many of the children unnecessary as they note (p 56) that "in many cases children would tell that 'they want you to buy' as they were pointing to the picture." In other words they claim that childre had already conceptualized the intent of commercials, a learning no doubt derived from hearing their parents tell them that commercials only want

you to buy their product. There is however, little doubt that the purchasing picture was the trigger to this result. Had the question been asked in the same form as Butler et al, without the picture, the results would have been similar to theirs.

There is an age difference in these results although Donohue et al do not report it.*

Table 8.7

Age Differences in Recognizing Commercial Intent
(from Donohue et al, 1980, table)

	2-5 years (mean %)	6 years (%)	
Correct Picture	73.7	95.5	$x^2 = 18.2$
Incorrect picture	26.3	4.5	$p < .001$

Table 8.7 shows that by age six, many more children were aware of commercial intent. While 74% of the younger ones did choose the right picture and we are not told what age children verbalized their answers, it is possible that the young ones were only indicating that they recognized or wanted the product. This is particularly likely given that another study found similarly to Butler et al that while four and seven year olds could distinguish program from commerical characters, "only the 10-year olds performed above chance levels when asked to identify which characters 'try to make you buy something'" (cited by Faber et al, 1982, p 583). Donohue et al's study certainly showed that the 2-3 year olds could recognize the product but it is far from proven that this reflects an understanding of the concept of persuasive intent.

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*They report a $x^2 = 27.0$, d.f. = 1 for Table 1 but do not indicate in which way they split their table which, as is, would be d.f. = 3. There is a similar problem on page 55.

Faber et al's own study which was totally recall-based, shared one commonality with Donohue et al -- it showed that the Piagetian stages do not explain or are contradicted by empirical evidence. It is also interesting to note here that in the Burr & Burr study (1977, a & b) neither age nor viewing hours could explain the relation between age and recognition of products seen on TV. Parents agreed that these children aged two to 10 years recognized products on the shelf between 52 and 79% of the time, 67% on average. The lack of relation with both age and viewing tells us that the nature of the persuasion exercised by television advertising has nothing to do with the development or ability of the child to generalize or conceptualize; or in other words, process information. That children of two years could do as well as children of nine years points to something other than abstract information. The answer to this riddle would appear to lie in television's properties, its ability to tap into neurophysiological layers beyond and below the neo-cortical. If the response is not cognitive, as it obviously isn't, then it must be basically affective and iconic.

Using two tests which were strictly recognition, Gorn and Goldberg (1980) showed that 48% of children 8-10 years old could remember a brand name when a commerical was shown once and 95% could remember it after seeing three different commercials for the same product. We would not expect any such level from recall tests. This is further support for what must be now a firmly established finding that higher scores result from recognition than recall (Jacoby & Hower, 1982, b). A behavioural measure -- how much icecream consumed -- failed to relate to number or variety of exposures but with hindsight this is not surprising, given the age of the S's. The experiment did however, support previous research with adults that there is a ceiling effect for exposure, particularly when the

exposure is repetitive and that children of this age will express annoyance with repetition. This is, of course, the response at the immediate level of awareness and we must agree these expressions of negative affect could become more generally associated with the product itself. (p 424) It is possible however, that the commerical was in some way irritating -- informative perhaps? -- and this irritation was accentuated with repetition. Doubt must remain on this point becasue of the frequency with which some ads are shown, apparently without inducing irritation.

In a study of remembering and forgetting TV ads, Zielske and Henry (1980) noted that the decay in purchases over time is not normally as rapid as the decay in unaided recall. This is of course what we would expect. Recall is associated with the perception of invariants but TV ads contain little by way of the information that leads to understanding, or the perception of an inner logic, generalization, or invariant. The effect of the medium similarly preclude perception of invariances: direct perceptual contact with the real world is not maintained. Purchase though, depends only on recognition or reconstruction of a directive correlation. Television commercials approximate a random array or econiche without orderly structure. On all counts, they will then be subject to rapid forgetting. Zielske & Henry also showed that for recall to be high at the end of a year, advertising must be maintained at at least a low level over the year. This is further confirmation. Whereas point of sale acts to re-create the directive correlation which produces recognition and familiarity, there is no such trigger in unaided recall. Therefore, for this type of measure to show an effect it must be closely, temporally tied to the commercial. Otherwise the rapid transformations

to which the small part of analyzed data will be subjected will be sufficient to cause it to be forgotten.

Kamen (1981) investigated specifically the notion of 'triggers' to remembering and confirmed Krugman's theory, and that presented here, in this regard. We may take issue with Kamen over his insistence that cognition and attitudes are still a necessary link between TV commercial and recognition, but this is at the moment a minor issue compared with his empirical demonstration. There was no generalization effect induced by the advertiser's name and logo which is again supportive of television as an a-conceptual medium, and the triggers to recognition were 'selective'; that is, specific to product.

The inter-relations between understanding, remembering and television as medium, are well aired through the controversy following Jacoby & Hoyer 1982 report of 'miscomprehension of televised communications'. Briefly, Jacoby & Hoyer tested 60 communications from three major categories, commercial and non-commercial advertisements and program excerpts, all 30 seconds in length. A true-false quiz was developed for each spot consisting of:

- one accurate restatement or paraphrase of an objectively ascertainable fact that was explictly stated in the communication;
- two inaccurate restatements or paraphrases of objectively ascertainable fact that was explicitly stated in the communication;
- one statement representing an accurate inference that could be drawn from the communication; and
- two statements representing inaccurate inferences that could be drawn from the communication.

This was, therefore, a simple test of whether the key information in the ad could be remembered when recognized or otherwise; the extent to which

the ad was comprehended or understood. Within the paradigm of direct perceition developed here, there is no categorical distinction between knowing and remembering. Respondents viewed only two spots and were tested immediately afer. Conditions were therefore ideal for good comprehension or remembering; uncluttered viewing followed by immediate opportunity to recognize.

One central and disputed result emerged:

> Regardless of whether measured in terms of viewer, meanings, or communications, there was a considerable miscomprehension rate, "far more prevalent than might have been anticipated." (1982, a, p 18)

Only 3.5% fully comprehended both spots; the average miscomprehension of each spot was 30% and there was no spot that was perfectly remembered. Range of miscomprehension was 23% to 36%. In other words, we would "expect anywhere from one-fourth to one-third of the material information content contained in communications that are broadcast over commerical television to be miscomprehended." (as above, p 18)

Although there was a statistically significant higher mean rate of miscomprehension for the program excerpts than the other two advertising categories, the authors point out that in practical terms the rates were virtually identical. That is, regardless of content or intent, understanding or remembering was a constant. Concern shown over this high level of forgetting public affairs information has been noted above. Demographics were all but irrelevant. Only a small negative correlation appeared with education, and a small positive between age and

miscomprehension. Again, Jacoby & Hoyer note that the relationships are so weak as to have little applicability.

"Miscomprehension seems to be widespread throughout the populace, occuring at all age, income and educational levels in our society and to the same degree." (1982, a, p 22) This would indeed appear to be strong evidence for a medium-based effect, and it could well be suspicion of such a conclusion that triggered the unusually hostile responses of Ford & Yalch, 1982 and Mizerski, 1982. The closest Jacoby & Hoyer come to a McLuhan-like conclusion is with their suggestion "that a certain frequency of miscomprehension may simply reflect a natural error rate associated with all types of televised communications. The ramifications that this implication has for such regulatory actions as cease and desist orders, corrective advertising and affirmative disclosure orders are substantial." (p 24) Continuing with a logical extension of this and "much previous research" they state:

> "broadcast advertising may not be a suitable medium for communicating substantial amounts of product information, particularly complex product information . . . perhaps the basic function of advertising is simply to stimulate awareness and generate problem recognition. Labeling and other information sources would seem to be better vehicles for providing the detailed supporting information." (p 24)

These conclusions are of course identical to those at which we arrived in the chapters on ETV and adult education. They highlight the astounding phenomenon that is television as medium: purporting to be education, or at least communication, its content fails to be comprehended, regardless of age, education and SES. This is a form of communication or information like no other. And these conclusions are as unpopular with the academic marketing establishment as they are with the academic educationalists.

Among some other points which Jacoby & Hoyer dispose of in their rejoinder (1982, b) Ford & Yalch (1982) mention that it is not clear whether the construct measured by Jacoby & Hoyer was 'recall' or 'comprehension'. Similarly they note that viewers 'store' underlying 'concepts' represented by words and sentences. They also suggest that "measures . . . should not measure comprehension of what is not recalled." (p 31) This perhaps brings home the difficulties and illogicalities of the traditional position of a storage and retrieval memory separate from a set of processes, particularly when the methods of 'retrieval' are interchangeably labelled by words which do have separate, precise, operational meanings. Mizerski (1928) distinguishes between recognition and recall but his argument is confused as even in his own study, 'comprehension' was higher with recognition than with recall. As Jacoby & Hoyer point out (1982, b) had they used recall, the miscomprehension rate would expectedly rise rather than fall. They also cite six other studies which found rates of comprehension or remembering comparably low with their own. (p 41)

This set of four papers illustrates two critical points:

(a) Even under optimal or ideal viewing conditions only about two-thirds of the information shown in one minute only is known or able to be recognized. Of some importance here also is the fact that wrong answers were given to 35% of the inaccurate statements and to 19% of the accurate ones. The significance of the difference here will become more apparent in the chapter on prosocial TV and social marketing. But it is clear from this research that recognition operates more effectively on specific, directly or positively oriented items, rather than those which were not directly conveyed, i.e. inaccurate statements which required analytic processes in order to be correctly labelled true or false. In

other words, if the viewer sees 'A' s/he is more likely to recognize that 'A is A' than s/he is to recognize that 'B is not A'. Jacoby & Hoyer found a slight difference in favour of inferences over facts, but this was minor compared to the difference between accurate and inaccurate statements.

Given these results it is not at all surprising that viewing over periods longer than sixty seconds results in sometimes minimal or no recall at all. The parallel with learning form ETV is obvious. Remember that in the study under review here there were no tangible products to be chosen. Had there been we would expect better rates of recognition.

(b) Even within the marketing fraternity, results such as those of Jacoby & Hoyer are anathema. Here also, there is a vested interest in having the medium perceived as informative and providing the basis f rational, purposeful choice behaviour. But in the process of attempting to discredit this study, its critics have exposed the weaknesses of their theoretical assumptions and the inability of these to do other than confuse what is a very straightforward issue -- people do not learn from television. They often fail to know (remember) what they have perceived even when the knowing is merely acquaintanceship. And when the knowing is demanding of some analysis or differentiation as in recognizing that an item is not as given on television, the failure is more frequent. The medium does not encourage understanding or the extraction of invariants; it operates below the conscious level by transforming only the affective qualities of discrete objects. To the extent that a concept or event can be objectified or concretized so will television be successful, as long as the perceptual measure is familiarization or recognition.

(ii) The Critical Nature of Point of Sale

It is, of course, also important to note that TV advertising and 'point of sale' work together. Packaging, while it is for most consumers merely something else designated for the garbage bin, or is at best contemplated as a sign of the wasteful society, plays a critical role in the subliminal persuasion equation. Described as "all the silent screaming" (Ward, 1983, p 23), the purpose of point of sales packaging is to arrest attention briefly so that the crucial link between TV ad and product can be made. Package designers will resist this argument as they consider their art to be "one of the greatest and most effective forms of advertising' (as above, p 24) which it may be. But the frequency of decisionless or so-called 'impulse' buying which can run as high as 80% of items purchased, argues for an extraordinarily powerful propellant which must act virtually instantaneously; in about one-tenth of a second (Ward, as above). Only a totally specific, subconscious and wholly positive sense of 'knowing' could account for such speed; questions of effectiveness, intention and outcome take longer. Recognition of the fittingness or belongingness of a product is by far the most simple and quick of these processes. If there is doubt on this score then the other parameters of the choice model will certainly be brought into play, causing purchasing delays. In the absence of any such doubt the equation will be speedily executed. The relation is admitted, although reluctantly. "'Certainly, advertising plays a role in developing awareness of a product', Chajet continued, 'But it is the package at the final moment of sale that is the clincher. If the package form or its appearance is lacking, the sale is lost.'" (Ward, p 24)

Point of sale is critical. But its relation with TV is symbiotic: they need each other. Ward's article goes on to document the finer detail of

this symbiosis in terms of the coherence or unity which a brand must establish; its "strong family identity." Colour, the "psychologically motivating force" and its various associations with lightness, freshness, cleanliness, liveliness, and sexiness, is together with brand name, the key to point of sale. Until we invent packages which individually play their jingles while sitting on the shelf, colour is the motivating link between the television commercial, the brand name and the product.

Neither end of the equation I have drawn is sufficient unto itself. The evidence implicates both in a successful assault upon human consciousness. Either one or both may also fail. The annual procession of failed new products can be seen as either a failure of the commercial to adequately tap into the deeper layers of the collective or individual unconscious, or the product's inadequacy to measure up at the point of sale reality test. Either or both can cause the pause which provides the time for evaluation of the probable effectiveness and outcome of buying in terms of broader objectives.

5. The Rhetoric of Advertising (Andrén, 1980)

Andren begins from the assumption that commercial advertising is rhetorical; its practical purpose is to affect the behaviour of an audience. There can, today, be little doubt that TV is powerful. Morever, there is little doubt that it operates more effectively with the poor and the disadvantaged.

We have become aware that television is a medium which persuades by imparting minimal information aimed at audiences which are least able to analyse or discriminate and which, when successful is immune to rational argument. The evidence also suggests that those engaged in the

commercial TV industry not only know that it works, but they also know why. But again one must go beyond the familiar rhetoric to capture the dynamics of this essentially deceptive medium. A perusal of the major journals of marketing and communication indicates that many of the practitioners and the academics in this field are remarkably coy about giving away any of the trade secrets of their spectacularly successful commercial medium. There are however some who have. There are certain themes in this literature which appear to be beyond dispute and these are centrally concerned with how the television medium has been used by its controllers and producers. Because these most frequently reported themes involve the television establishment, they often lead to claims that television as an information system could be reformed. But we have gone more deeply into this analysis with the intention of showing that the nature of the medium itself is responsible for the way in which TV information has been and is increasingly packaged, and why it would not matter who owned or controlled the medium; all would be inexorably forced into producing in the current mould. (Mander, 1978, p267)

This section therefore documents the commonalities inherent in all the 'languages' or internal logics of television production. These certainly do not determine the effects of television but they have been perfected over time to complement and enhance the unique characteristics of the medium. These too we will explore in order to show how inexorable the logic is.

(i) The Production Language of Technical Events

Since its inception the television industry has come to know itself extremely well. Producers moving from the world of film and cinema to

the new medium quickly learnt the differences and capitalized on TV's unique characteristics.

Mander (1978), a defector from fifteen years in the public relations and advertising world, has effectively 'blown the whistle' on the production and structure of TV material. He has shown that TV advertising works its magic by virtue of its ability to pay for a high level of technical events, i.e. the zooms, pans, rolls, flashes, cartoons, cuts etc. Mander concluded that:

(a) public TV has two to three technical events per minute;

(b) commercial programs have eight to ten technical events per minute; and

(c) advertising has twenty to thirty technical events per minute.

His advice to viewers was to learn to strip away the technique so the true content has to stand on its own. In the case of advertizing, it falls apart. In case one is tempted to believe that the materialistic motivations of the advertiser have led to this development in production, Mander points out that the only real difference between advertising for profit and public broadcasting, i.e. non-commercial TV, is the ability to pay the fantastic costs involved in producing 'interesting' or 'good' television.

As discussed above, in terms of the actual evidence, TV as education has failed. As we have noted however, the myth continues, much of it due to the producers of Sesame Street -- "the most popular program in public television history". "It is not well enough appreciated, I think, that Sesame Street was conceived, designed and executed from its inception by ex-advertising people. Using every technique they learned in advertising -- rapid cutting, interspersing of songs and cartoons, very short time

spans -- their show has been found more 'interesting' than any public TV program that preceded it. This 'interest' is based on technique and these are the same techniques used in advertising." (Mander, 1978, p 310)

We can now begin to see how the medium works and what it is good for. The TV industry has learnt what the medium is about and what it can and cannot do. The modal length of a commercial has dropped to approximately thirty seconds. Some now are only twenty seconds or less. Time compression is increasingly popular as noted above. Mander suggests that "nothing works better as telecommunication than images of products. Might television itself have no higher purpose?" If Sesame Street has been as successful in marketing the letter A as the food manufacturers have been in marketing salt, sugar and monosodium glutamate, then the learning is clear.

The best things on TV are the ads and the 'best' ads contain the least information. "Tests prove viewers cannot remember commercials that say two things or more, so most spots develop one USP unique selling proposition) and focus on that. If you only have one thing to say, you should be able to say it in ten seconds." Price (1978), like Mander, gives the inside story. He sees 1970 as the turning point when ads moved from being "beautiful short movies" to "real TV". Television is a subtle form of operant conditioning. It is because it is difficult for it to be anything else.

Technical events attract attention and help keep the viewer from asking questions about the content, particularly the oral and visual language employed to convert attention into persuasion.

(ii) The Aural & Visual Language of Television Advertising

That television induces a suspension of the critical faculties is confirmed by two studies, one each examining the visual and the aural languages employed by advertisers. Discussing the spoken language of TV ads, Geis (1982) writes "in general, advertisers tend to prefer vague language rather than language with explicit empirical consequences and to prefer subjective claims to objective claims, for, in both cases the claims that result, though they may 'sound good', are very difficult if not impossible to falsify." (p 130) This is an unintended consequence of intensified regulation. (Shimp & Preston, 1981) Such claims have come to be called 'evaluative'. Andrén (1980) calls them non-propositional. While concerned to avoid regulatory difficulties, the advertisers must differentiate the U.S.P. of their brand from a pool of virtually identical products. Factual or 'informative' claims of difference would therefore constitute deception. But in one very clear sense evaluati ads make no claim at all. (Shimp & Preston, as above, p 24) They then act to disturb or block critical analysis. (Andrén, 1980, p 80) "What is interesting is that such vague, subjective claims could be effective. I fear that consumers may not bother to think through such claims." (Geis, p 130, with added emphasis) He believes the combined audio-visuals may complicate the problem of evaluating the message "for viewers are not normally able to focus their attention simultaneously on both channels." (p 3) But in normal face-to-face conversation, people rarely have difficulty evaluating the message although they are interpreting data from more than these two 'channels'. Geis sees a puzzle in otherwise sensible viewers suspending disbelief in the case of television advertising. (p 162) But as we will see in Part III there a good reasons for this.

Williamson's work analyzes the visual dimension of advertising in general, from a modern structuralist perspective. She argues that the structures of meaning created by commercials are given not by the overt messages but by the "content of the form" (p 17). Latent meanings are established by correlation of parts within the formal structure of the picture. 'Advertising work' is therefore the creation of systems of meaning (p 19). Both authors, like Mander (1978) attempt to look below the surface and capture the deep structures and system principles of advertising.

Geis' analysis shows the many tricks of language that producers use and get away with. These include rhetorical questions which imply but do not assert the desirability of a product, the use of imperatives which are accepted as suggestions rather than orders, and 'verbal trickery' such as substituting 'yum' for 'gum' in the text of an ad for a gum called Bubble Yum (p 22). Such "language play" is an extraordinarily common feature in advertising to children (Geis, p 167); rhyme, partial rhyme, onomatopoeia and alliteration are used to create ambiguity and association by indirection.

Williamson documents the use of juxtaposition and connotation to make irrational connections which are themselves the messages (p 13, 25). A metastructure is thus created which is devoid of content and relies on relationship whereby meaning of image is transferred from one object to another. A myth is created; where "meaning is constantly assumed through the form of its perceptual translation." (Williamson, p 43)

Thus we begin to see how 'knowledge of' and its peculiarly uninformative nature is exploited by advertising. The many small signs that

advertising is deceptive are unlikely to be noticed consciously, and for adults and particularly children, commercials "constitute a kind subliminal advertising". (Geis, p 208) It works "not on the overt but almost on the unconscious level" (Williamson, p 19).

Studies of disclaimers, both aural and visual, confirm both that these are not remembered and neither is a good deal of the advertisement itself. Even under optimal conditions with prior sensitization and knowledge that they will be questioned, adult viewers could recall only 21% of the disclaimer information. This however, was a ten-fold increase over the 2% remembered after viewing in normal circumstances. Lovil and Padderud (1981) suggest such disclaimers should be presented in more legible ways for longer durations if they are to meet the intent of the federal regulatory agencies. But even this is unlikely to be sufficient.

In particular Geis documents the way in which ads exploit the human ability to automatically draw inferences from spoken language and our inability to immediately recognize invalid inferences. His discussion validates the paradigm of direct perception as it makes clear the fact that people directly extract meaning from spoken language in a highly pragmatic fashion. We are also prone to committing logical fallacies, particularly when viewing TV ads; at a rate of about 70%. Shimp & Preston (p 26) suggest this may represent an "atypical form" of processing. One experiment showed that the statement "The angry rioter threw the rock at a window" was mostly recalled as "the window was broken." (Geis, p 37) While we certainly distinguish what is said from what is implied when required to do so, direct perception guarantees t this exercise in formal logic demands a special effort. Geis' use of the word 'inference' then is not to be taken in the sense in which

traditional cognitive psychologists would use it. As we may analyze a visual illusion so we may analyze the making of an invalid 'inference', but ordinarily we assume validity. He notes the extraordinarily common use of "you know" in ads where 'know' implicates the message. (p 41) This process of implication goes unrecognized by viewers (Shimp & Preston, p 24). Other verbs such as we 'discovered' (the message or USP) or we are about 'to find out', have the same implicative status of validating the U.S.P.

Both analysts agree that the techniques exploit our perceptual participation and vulnerability in order to achieve their effect. "Meaning only exists in . . . the field of transaction; and it is here that we operate -- we are this space." (Williamson, p 44)

Another form of implication is given in such examples as "choosy mothers choose Jif". Called 'theoretical implicatures' these statements provide opportunities to exploit false beliefs such as 'fruit flavoured' products must contain fruit. Williamson also points out that products which become adjectival in relation to people such as in the 'Pepsi People', are intended to confer quality, although the aura of significance they convey "derives from a rehash of mythological elements already present in society." (p 45) Consider then the power of the example she uses -- 'Is your Mum a Superfine Mum?' No wonder parents and children alike cannot resist the opportunity to buy another tub of this product and thereby reassure themselves that they are (have) a superfine mother.

Closely related is the creation and/or maintenance of stereotypes. At one level, commercials maintain stereotypes simply by reinforcing the notion that 'mums buy margarine'. But "there is also a danger in having

people involved as part of the currency in these (ideological) systems (because) when people become symbols they need not be treated as human beings." (Williamson, p 169) Stereotypes are false abstractions from the real world, that which we 'know'. Advertising continually creates stereotypes of the 'good life', the 'beautiful people', and the 'bad mother' who refuses to buy Superfine; an unreal world that we don't know, yet one that appears so real and ubiquitous - "more real than reality", (p 170) - that we run the risk of choosing to follow the abstraction rather than extract an accurate invariant or meaning. We become deprived of knowledge and mystified about history, nature and society. (Williamson, p 169)

Indirect or 'conversational implicatures' are also much favoured because they demand more mental effort, something which TV producers are well aware will not be forthcoming. They are therefore highly persuasive, e.g. "We're building a reputation, not resting on one." (Geis, p 50-51) Clearly the implication is that the major competitors are no longer making an effort to please. Geis has almost tumbled to one of the most basic rules of television advertizing as above -- be effective by being as uninformative as possible. See his point 5 on p 238 -- "They sound good but . . . don't say anything at all." Williamson is also clear about the absence of information.

Throughout his following chapters, Geis documents the whole grab-bag of violations used by commercial agencies; for example "elliptical comparatives" or lexical ambiguities such as 'our oranges are sweeter'. They are as likely to be believed as complete statements of fact (Shimp & Preston, p 26) and pose virtually insurmountable problems in TV commercials "for remembering exactly what actually was said . . . is

normally very difficult if not impossible." (Geis, p 108) Product names may themselves be implicative, such as 'Vanquish' which is an anlagesic. "The primary function of the product name . . . is to serve as a link between advertising and sales" (Geis, p 110); that is to transform the potential energy of familiarity into the kinetic energy of buying. Unerringly, both analysts perceive the efficiency of unconscious recognition.

Throughout, Geis & Williamson demonstrate how information is avoided in favour of affectual or sensual claims or implications. Advertising is based on evoking emotion indirectly through a promise of evoking pleasure. Feelings and moods, inevitably positive, are correlated to objects both attainable and unattainable such that the myth of attainability is created. Williamson notes that the crux of poetic method lies in the sufficiency of correlates. (p 31) Geis demonstrates with the 'television definition of breakfast' as a case study. Shimp & Preston (1981) report a series of experiments which showed our need to create meaning, the resistance of such created meaning to change in the light of other empirical evidence, probably because the message was unable to be disconfirmed in the first place.

Mander provided a decoding system for technical events, Geis for the aural language of ads, and Williamson has illustrated how we may pick our way through the pitfalls of visuals. At each level of technique we see the manipulations of our perceptual system. When viewers can learn to strip away the technique, the true content has to stand on its own. In the case of advertising, it falls apart. (Mander, 1978)

We may certainly learn to observe and analyze these while reading a magazine ad or playing a tape, but television viewers will rarely attem these intellectual activities while viewing. TV continues, therefore to be the marketing medium par excellence.

But all these devices which have been honed to an art form by television advertising clearly have the effect of supplementing the results of previous chapters towards the conclusion that as medium, television simply does not meet Asch's conditions for effective communication.

(a) It does not present an objectively ordered field open to the inspection of all. Few know how the medium works, how the news is produced and edited, or how commercials are 'created'. Few understand why 'Sesame Street' is such a 'good' program. As we have seen up to this point, things are not what they appear to be.

(b) It fails to assert basic psychological similarity or the belief that we are all human with the same human concerns. This is most strikingly observed through the work of the Annenberg school; sedentary and non-violent heavy viewers believe the world is densely populated with people very unlike themselves. In the realm of advertising, problems are easily fixed with a can of cleano or glamouro, self-indulgence is rewarded by health and vitality and 'happiness' is endemic. This is hardly the lot of the majority and certinly not of the heavy viewer, as we see below.

(c) Television does not therefore establish that there is a mutually shared field where the commonly perceived objective features become a basis for participative planning. Rhetorical devices and other content merge with the effects of the medium to produce a distorted perception of the field, and a feeling of distance from it. Heavy viewers are not in general participants. But while in reality they shun the environment, they are drawn into the TV advertising world of positive affect. The general lack of information, in advertising and in the news alone, is sufficient to inhibit the emergence of a shared objective field. This of course creates problems for all theories of communication which depend on messages which are informative. (Ackoff & Emery, 1972, 144-145)

(d) The question of trust has been raised and found lacking at the conscious level. This is expected firstly, because television advertising is not trustworthy or truthful in the ordinary sense of the words (Andren, 1980) and secondly,

because trust derives from the previous three parameters and these are unfulfilled. Development of viewers, therefore, as open systems engaging in joint ventures characterized by mutual support and respect is not to be expected, and is not found. In our final chapter in this part we see that the end result of a TV lifestyle is an accelerating cycle of dissociation, not the growth of learning communities.

We conclude therefore that television advertising, or indeed television in general, must be an entirely ineffective and non-persuasive medium.

Conclusion I: From the empirical data base; television is a highly effective and persuasive medium of communication

Conclusion II: From theoretical analysis; television is a totally ineffective and non-influential communication medium.

This would appear to be something of an impasse. Before we return to it, let us firstly examine another small field of data which will provide a further clue to its solution.

6. The Search for Information

We have examined the evidence for television as a powerfully persuasive medium. Much of this persuasion is inadvertent and effected without the transmission of information. We must now examine what happens when people are aware that they need or want knowledge. Traditionally, this need has been met by two sources: other people and the written word. Has the advent of the electronic media changed this pattern? Several recent studies illustrate the current situation. The first (Williams et al, 1977) compares media exposure and information sources in three different socio-economic and racial communities in Los Angeles. I have selected only those figures relevant here in terms of health information and shopping (Table 8.8).

Table 8.8 Media Exposure and Information Sources In Three Communities (Los Angeles)

	Watts (a)	Boyle Heights (b)	Reseda (c)
	hrs	hrs	hrs
Average no. of hours watching TV and listening to radio yesterday	3.0	3.2	1.3
Percentage selecting:	%	%	%
Print for health information	8	6	20
TV for health information	3	2	18
Print for shopping information	52	72	75
TV for shopping information	3	2	5

(a) Black; low income
(b) Mexican-American
(c) White; middle income

As is consistently found, the lower class consume more radio and TV than the middle class -- roughly here 2:1. This media consumption is, however, not reflected in the percentages who select a medium fo information when they actually want it. For health information (3:1), but more dramatically seen in shopping information figures (17:1 and 36:1), the lower class groups choose print over TV. Moreover, a higher percentage of middle class community selected TV as the source for both kinds of information than did the lower class, heavier viewers.

Combining the figures for TV and print for each town, we find that $x^2 = 10.49$, d.f. = 2, $p < .01$. Across the three communities print is much preferred to TV as a deliberate source of information.

Another study of information source, this one for retail stores, (Hirschman & Mills, 1980) supports the above result. In two southeastern U.S. cities, a consistent pattern was found where 'habit' was given most frequently as the reason for choosing a place to shop. Generally less

than half the sample engaged in active search. But of those who did, newspaper advertisements, friends and relatives, TV and radio ads were mentioned in that order. Table 8.9 shows the difference between newspapers and television when people want to acquire information.

Table 8.9

Superiority of Newspapers in the Search for Information
(from Hirschman & Mills, 1980, tables 1 & 2)

	City A *		
	Newspapers	TV	
Observed	35	6	$X^2 = 11.72$
Chance	20.5	20,5	$p<.001$

*Of the four comparisons given in tables 1 & 2, City A data for last retail shopping trip provides the smallest difference between using newspaper or TV. All other selections would therefore yield more significant differences.

Hirschman & Mills discuss three attributes of newspapers which set them apart from other mass media in the search for information: visual image, physical record and competing advertisements. This unique combination allows for thoughtful, detailed comparison shopping.

Wright (1975) also found print to be literally hundreds of times more potent as a source of information than TV and, at a minimum, eighteen times more potent than radio. Lacking a doctor or nurse the next choices for information about a health problem were a book (51.4%), pharmacist (37.1%) or relative (11.4%).

However, in an isolated and disadvantaged community where, presumably, there is a problem with the transportation of print media, a study found that radio was the most chosen medium for information and news (Hudson, 1977). The study allowed multiple responses and reported the following results: radio (80%); newspapers and magazines (47.5%); friends (35%); people travelling (30.1%); and TV (22.9%).

This study did not distinguish between generally keeping up with the outside world and looking for specific pieces of information. Even so the recognised advantages of radio over TV are clear. In outback Australia, the transistor and CB radio found rapid acceptance.

The radio program 'Dialogo' in Costa Rica has also succeeded in reaching the rural poor and disadvantaged with its messages about human sexuality and family planning. (Risopatron & Spain, 1980) Not only does it appear to be unique in that it has captured the attention of this traditionally difficult population, but its audience which has maintained a representative male segment competes successfully with prime-time television. While this study suffers as do most from a reliance on interview questionnaire data, the differences between listeners and non-listeners on the dimensions of knowledge, attitudes and practice of family planning are all highly in favour of the listeners. This contrasts markedly with other family planning campaigns cited by the authors. Previous campaigns found 75-95 percent awareness but only 6-8 percent adoption of practice. Dialogo has achieved 45.5% of listeners high in knowledge, 67.7% who are favourable towards sex education and 59.3% who practice family planning. Practice therefore has outstripped knowledge with this medium. This has also been achieved without the cost of setting up face-to-face discussion groups. Clearly for isolated and disadvantaged people, radio has succeeded where television has failed. This study provides a nice contrast with many reported in the next chapter.

Clearly when people have to learn about and understand an issue they choose the most available medium which (a) best conveys conceptual knowledge and/or (b) can be returned to, pored over and thought about, until they know that they do understand and have learnt.

Apparently there is no study which has found that when people have to make a serious conscious choice, they will search in a non-informative medium for the information on which to base that choice. The traditional pattern is still basically intact.

Here however, we must distinguish carefully between these studies and the results of TV news research. In that chapter it was noted that the function of the news is to 'inform' but the information people expect to gather from such viewing is rarely oriented towards a decision. It is virtually free-floating information without a personal focus, apart from wishing to be well-educated. The studies under review in this current section were predicated on a need-to-know, in relation to a specific decision. This is probably the reason why television news has been adopted gradually over the years as a credible information source. If urgent personal decisions were hanging on the informative content of the news it may never have attained such status. It is a reflection on the dissociated society that so few decisions do hang on being a citizen, well-educated on current affairs.

In Conclusion

The section on the rhetoric of advertising has in many ways served as a summary of the previous sections of this chapter, confirming as it does many of the key features of advertising in general, and the ways in which they have been refined for use on television. We will therefore only pick up here the critical points for our theory and the hypothesis of television as a maladaptive technology.

1. Television commercials rarely contain information by which viewers may be instructed. There is little material to react with the parameter of probable effectiveness. As there can be little to be

understood or remembered in real terms, and there appears to be small evidence of cognitive or information processing, it becomes clear that the act of purchase will be more a psycho-logic than logical or 'rational' choice.

2. Information is deleted in favour of semantic and visual devices which convey an impression within a context of music, colour and movement, all of which are designed to create an attractive, emotional econiche. As the industry understands, the message need only 'resonate' with personal desires and beliefs. The critical parameter of the choice model tapped is that of probability of choice, the expression of that which is familiar or 'in character', appropriate to the individual viewer. But given the positive, non-irritating character of a 'good' commercial, it is not difficult to find a quiet, lowest common denominator which will flow gently over most individuals. Commercials will also through this emphasis touch upon the parameter of relative value or intention.

3. Music and colour by their nature and predominant or primary source of processing - the right hemisphere - will not usually be as accessible to consciousness or verbalization. Whatever messages are conveyed through their association will not be subject to tests of comprehension and conscious remembering.

4. We can conclude that television induces non-purposeful behaviour:

   (a) because probable effectiveness is so reduced in power, there is effectively no deliberate choice being made, because
   (b) the medium is most attractive when viewers can settle without interruption into a state of awareness rather than awareness of awareness. Material which disturbs this state of attention without vigilance is perceived as an irritation. Yet vigilance and the alternation of awareness and consciousness are basic requirements for adaptation.

5. The success of recognition relative to recall of television content is clearly exposed by this analysis:

(a) recall depends on conscious, processing of information in order to assess the effectiveness of a choice based on it. It is therefore the appropriate measure to distinguish between media which foster conceptual development, or the perception of invariants (print) and those like television which are strictly iconic, preventing generalization from specific object reference or events.

(b) recognition will measure the extent to which a specific and discrete television content has been successful in taking root in an individual's or collective unconscious. Such a measure cannot pretend to gauge knowledge 'about', conceptual understanding or abstractions, even when this was intended, as in the misguided cases of ETV. In fact, there is sufficient data in the literature to propose a scale of recognition effectiveness which is amenable to empirical test, and useful for our next chapter.

Table 8.10 and figure 8.2 conceptualize the dynamics of recognition and the way in which television is dramatically and successfully exploitative of these dynamics. Reading across the top row gives us the most common instance of this success: a product is attractively presented with a catchy USP, no information and a preferably implicit directive to buy.

Table 8.10

Success of Recognition by Item, Message & Trigger

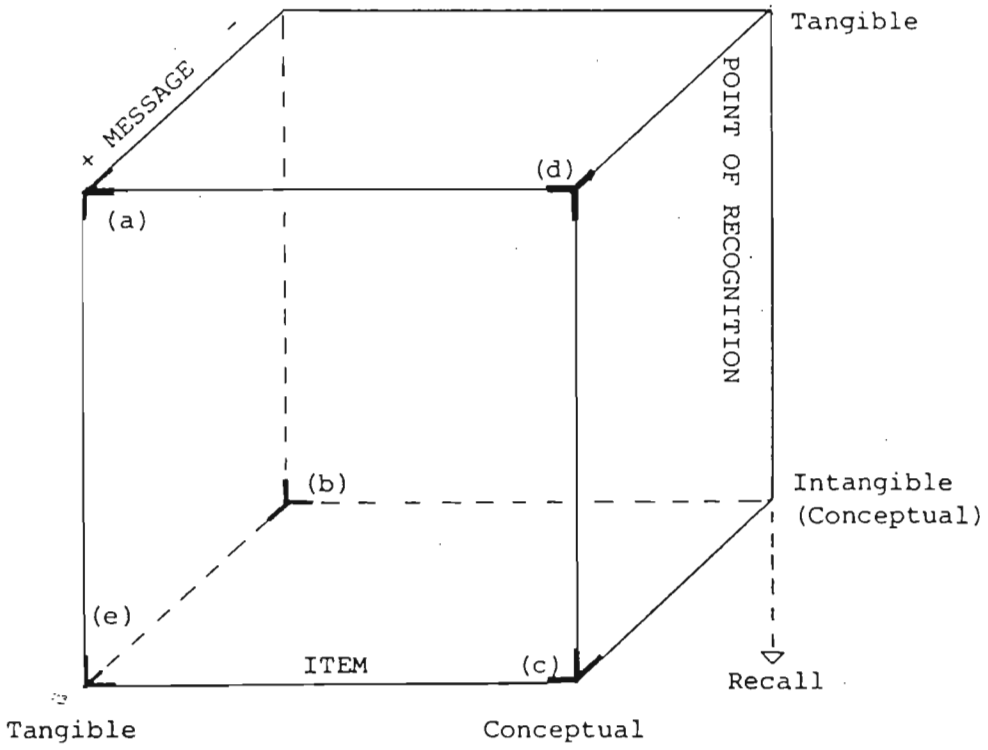
Television		Point of Recognition	Success
Item	Direction of Message		
Tangible (Product, Brand x with USP y, no information)	Positive or Direct (Buy or Do or Learn)	Tangible, identical	1
		Other similar Products or USP	2
Some information		Quiz on specific features	3
Conceptual (e.g. multiplication with talking head)	Negative or Inverse (Avoid buying or doing)	Quiz on non-specific features - knowledge'about'	4

The product is on the shelf, screaming silently and featuring the identical, catchy features of the USP in the ad. Result: instantaneou recognition, sense of warm familiarity and into the basket. There is no need for cognition, attitude or choice, only a perception.

This can also be represented as in Figure 8.2.

Figure 8.2

Success of Recognition by Item, Message & Trigger



This three dimensional model can be explored and tested in several ways, some of which we will touch upon in the next chapter. For example, we may specify the following cases where we assume a multiple choice format for recognition. See Table 8.11.

These are only examples of how we may begin to conceptualize and operationalize recognition. Television has already done it for its own purposes, and we continue this discussion below, pro and con.

The diversion has served here only to illustrate the conceptual differences that underly the failure of television as education and its success in marketing. One last point remains.

6. Apart from McLuhan, most theorists predicted TV would be an excellent educational medium, for several reasons as we have

Table 8.11

Examples of Usage for degree of Successful Recognition

Item	Message	Recognition	Remarks, and Test for Figure 8.2
tangible +	+	tangible +	(a) As above, successful TV ad plus point of sale. Also 'Sesame Street' - point to the letter 'a'
+	-	-	(b) You should give up smoking cigarettes because - (conceptual reasons)
-	+	-	(c) ETV, with recognition of concepts
-	+	+	(d) Slogan is 'Good Nutrition for Good Health'. Which of these (tangibly present foods) would you choose first for good health?
+	+	-	(e) Slogan is 'An Apple a Day keeps the Doctor Away!' Apples are good for you because - - vitamins - fibre - prevent dental caries - balance diet

reviewed above. The marketing industry quickly learnt the properties of their medium, not the least of which is its superficial validity of 'seeing is believing'. From this perspective it would be easy to conclude that it was a persuasive medium because it did present an objectively ordered field open to the inspection of all, it did deal with central human issues, did

encourage participation because people feel close to and involved with its characters, and enjoys high credibility becau 'perceiving is knowing'. But as we have come to learn, this is itself part and parcel of television's capacity to deceive. The facts of the matter as they have emerged through several chapters are that the medium does not fulfil the conditions for influential communication. All the clues needed to resolve the dilemma are to be found above:

(a) television viewing is not a conscious experience; it may not even always operate at the level of awareness.
(b) the choices presented by television, particularly and explicitly by TV advertising are therefore not thoughtful, logical chocies, because by definition, making a choice is a deliberate, conscious and purposeful behaviour.

But Asch's model assumed that his subjects were conscious, purposeful learning and choosing systems. When viewing television however, they appear not to be such, and this explains t discrepancy between Conclusion I and Conclusion II. To bridge this gap we must obviously abandon the ontogenetic level of explanation and search more deeply -- for the effects of television at the perceptuo-motor or neurophysiological level; that level of reaction rather than response. We will expect to find substantial indications that while televiewing, there is a range of reduced cortical activity and allied effects, depending on the sensitivity of individuals to the physical properties of the technology. As we have just surveyed:

7. A medium which reduces the ability to function as fully human, i.e. as vigilant, purposeful and time-binding with a consciousness c choices made and needed, can hardly be called adaptive. Even at this level of analysis, the behaviours associated with it are more

rightly termed reactions than responses, without even touching on the further reaches of planning or ideal seeking. Commercial television would indeed appear to have uncovered the 'fatal flaw' (Emery & Emery, 1976, p 93) of our distinctive competence. Affects are free floating, absolutely free to team up with any directive correlations, and humans will always attempt to maximize postive affect. (Tomkins, 1963) A deceptive medium, television, has seduced us into "goal-seeking but purposeless . . . immediate consumption." (Emery & Emery, 1976, p 73)

Maladaption is virtually proven. Before we pronounce this as our considered judgement we need to consider first, whether TV can be redirected to 'prosocial' ends, and secondly, make an assessment of the damage done so far. This should enable any reader to come to his/her own conclusions about the thesis that CRT technology is a maladaption; an obstacle to human learning and development.

Chapter 9 Pro-social Television: Possibility or Probability?

Widespread criticism of TV's content as violent and generally antisocial, impelled movements to utilize television's potential for cooperation, healthier life styles and 'the great society'. If, as many believed, the content of television was responsible for the parlous deterioration in civic order and family life, then obviously all one had to do was reverse the substance and sentiment of the content.

Learning 'pro-social' behaviour became a critical issue because those who believe that television has the power to create pro-social behaviour, or increase its frequency of occurrence, are vocal about the positive potential of the medium and account for much of the optimism about the future of the medium. Research on television's influence on pro-social behaviour burgeoned into one of the most significant developments in the decade after the report of the Surgeon General's Committee. (National Institute of Mental Health, 1982, p 48)

'Pro-social' is used here in the very general sense which specifies that which is socially desirable, benefitting another person or the society in general. (NIMH, 1982, p 48) It is implicative of ideals rather than purposes or merely goals. It is not relevant to our purposes here to distinguish as do Fox & Kotler (1980) between social marketing or societal marketing as our definition of pro-social covers implicitly the notion of social change. We are concerned only with the extent of possibility of television's reformation; its potential as a genuinely educative, socially responsible medium. We deal specifically therefore with data involving such behaviours as cooperation, which are central to the ideals of homonomy and nurturance and the associative society.

In 1971 the Surgeon General's committee also raised another 'unfinished agenda' regarding television's health promoting possibilities involving the ideal also of humanity. This becomes part two of our data here. In that section we have reason to query some of the National Institute of Mental Health's blithe conclusions about "taking into account what is known from the behavioural sciences and thereby tapping into a great untapped potential for encouraging voluntary changes in behaviour" (1982, p 14). The face validity of many experiments into pro-social ventures may be high, but there is also a substantial proportion whose concepts, methods and conclusions do not bear up under detailed scrutiny.

Having now examined in some detail the ways in which television has learnt to be successful, the pro-social experiments can be held against this light. Those in the industry proper, the advertisers, marketers and producers, have been shown to be very clear about what works and why. Pro-social interests however, are shared between the newer tentacles of the industry and the educationists who are still searching for the potential, because in the ruling paradigm -- there must be one. Education proper having failed, pro-social television or social marketing is the new hope.

The range of data presented here show however the inability of the traditional framework to get to grips with the issues and, the importance of an object to recognize, when the primary vehicle of the learning campaign is television. The medium as medium is still incomprehensible to many. With all this as context we attempt, therefore, to present a realistic estimate of the pro-social potential of this medium.

1. Indications of Pro-social Success So Far.

(i) Homonomy & Nurturance

In a comprehensive review of the work done so far on pro-social television, Comstock et al (1978) reveal the extent of the confusion in the literature (p 250-261). They cite literally dozens of studies. The first point of confusion arises from the fact that in some cases it is impossible to tell whether the material was presented via television, film or other medium, and it becomes obvious that these are being compared indiscriminately. This is not unusual. In 1973, Milgram & Shotland published the results of a series of experiments which they called Television and Antisocial Behaviour. At no stage in this series did any subject watch a television set! All presentations were made on "the theatre's professional-size movie screen". (Milgram & Shotland, 1973, p 14)

The second point of confusion arises from the same lack of distinction between knowledge of (informing and familiarizing) and knowledge about (instructing) and subsequent behaving. Of all these studies I noted only six where it was specifically mentioned that some behavioural measures were included in the research.

All of these studies which showed positive behaviours such as less cheating, displays of affection of friendliness, sharing and cooperation, appear to have measured the effects immediately after the viewing. As we would expect however, there is a problem with generalization in the studies which included this aspect; for example, "the influence of a symbolic model may be highly specific". (Comstock et al, p 253) One study did find some small evidence of generalization from sharing candy to sharing candy and pennies. Similarly, it was found that model's

behaviours but not their exhortations were the primary influence; in other words, what counts is the concrete action, not the rule or concept.

By far the most typical measures were "understood the message", "is evaluated more positively", "could correctly answer more questions", etc. In other words, a verbal report which indicates some degree of familiarity with the researchers intended message is being accepted as the equivalent of a social behavioural event. Yet, we know now that there need be little relation between what people say and what they ultimately do, particularly when television is involved. The same criticism applies to laboratory experiments where children are required to press, for example, "help" of "hurt" buttons. This simply cannot be equated with the behaviour of children in a naturalistic setting.

There was one study where the author had indeed built into the research design the critical distinction between familiarity and doing. The conclusion?

> "Although the data show that exposure to the treatment films (Sesame Street) influenced the cognitions about cooperation of five and seven-year olds, there was no increase in cooperative game behaviour among children of any age. Moreover, there was a negative impact on the youngest children who viewed the conflict-resolution version; these children tended to be less cooperative than their control group counterparts." (Silverman, 1977, in Comstock et al, 1978, p 257, emphasis is added)

This is clear evidence and cuts through a lot of what can only be described as inconclusive research. Yet Silverman's work is described without comment or analysis as the single exception amongst "the work of these investigators (which) has consistently demonstrated that viewing 'real' pro-social programs can increase pro-social behaviour at least among preschool children." (Comstock et al, as above, p 258)

Other aspects of Silverman's research have subsequently been published (Silverman and Sprafkin, 1980). A two-stage experiment reported there found the following pattern of scores on a marble-pull game after watching four different programs (table 9.1).

Table 9.1
Effect of Conflict and Cooperation on Cooperative Behaviour
(from Table II)

	Cooperation (Marble Score Mean Total)
Sesame Street; Conflict	1.33
Sesame Street; Resolution	3.33
Public Service Announcement; Pro-social	5.00
Sesame Street; Neutral	6.33

Only the conflict-only condition differed from the totally neutral, control show. Neither of the pro-social presentations had any effect. As Silverman & Sprafkin note, "Previous research with pre-schoolers has documented mimicking by young children of televised prosocial behaviour when cued by an identical or nearly identical problem situation, but generalization to other settings is weak or nonexistent. The present study showed no such generalization to the same situation." (p 145)

Further to this is another critical point for our argument. Their data supported the hypothesis that the portrayed conflict was responsible for negative impact of the conflict-resolution spots. "The power of televised conflict to arouse negative social behaviours in children has again been demonstrated." (p 146) In other words, while the pro-social spots failed, the aggressive spots worked well, and there we have the contrast.

Sprafkin and Rubinstein (1979) come also to essentially negative conclusions about the impact so far of pro-social television. The

children in their sample were exposed to, in the normal course of viewing at home, an average of 12.67 pro-social acts and 5.04 aggressive acts per program viewed. After partialling out demographics and academic achievement, they found that the amount of television watched and the level of pro-social content on favourite programs were related to the degree to which the child behaved pro-socially in school. "However, each of these variables accounted for only about 1% of the variance in prosocial behaviour." (p 274) They also found that "girls and children whose parents are highly educated constitute the greatest proportion of the pro-social programming audience. Since both these characteristics were also related to behaving in pro-social ways in school, it appears that the children who already exhibit highly desirable behaviours are attracted to pro-social programs, while the children who could stand to benefit from pro-social programs do not watch them." (p 275)

Sprafkin & Rubenstein explore several reasons for the fact that the correlations obtained between viewing and pro-social behaviour are so much lower than those obtained between viewing habits and aggressive behaviour. Amongst these are the facts that because "young children learn better from simple, direct, and active presentations, they may be more likely to learn aggressive rather than pro-social behaviours from television." (p 275) Pro-social behaviour is usually subtle and verbal, and we would add, nowhere near as exciting. Pro-social characters are also commonly of lower power and status. Clearly from this evidence, we would have to agree that pro-social television is preaching only to the converted, and that if there is any hope here, pro-social programmes must begin to be appealing to wider audiences of children. (p 275)

A typical example of pro-social experimentation is provided by Gorn et al, 1976. Three- to five-year old English white Canadians (N = 205) were shown 'Sesame Street' with inserts of non-whites and a French Canadian child. Immediately after viewing, the experimental and control children were shown still photographs of white, Oriental, Indian (Canadian) children and the French Canadian boy, Richard, and asked which they would most like to play with tomorrow. The experimental groups who watched inserts of non-white and French Canadian chose those children as playmates more often than the controls who viewed whites only. Degree of integration displayed in the inserts had no effect and neither did frequency of exposure. This latter is a particularly crucial finding: the power of television in promoting recognition is such that it does not depend on repetition for its effect. Goldberg & Gorn (1974) had already shown that three exposures to a commercial were no more effective than one.

This study confirms the findings of Bogatz & Ball (1971) that exposure to 'Sesame Street' created positive attitudes toward other races, after two years. That study, of course, provided the basis of initial hope for television's pro-social influence. Now, let us examine this confirmatory study in more detail. Firstly, we are told that it made no difference whether the experimental children merely viewed Richard, the French Canadian, or heard him speaking French. In other words, it didn't matter that they didn't understand a word he said, he was after all "an attractively presented child". (p 277) All inserts in fact, presented attractive children (people) as does the news, the weather services and the rest of the fare (Postman, 1982, and see the recent case of discrimination against a female anchorperson; U.S. Jan. 1984).

Attractive people are attractive, and their incomprehensibility is irrelevant when making television-influenced choices.

Secondly, the test was recognition and it was immediate. Both the two previous studies had failed to find a pro-social effect after a year had elapsed. As reviewed above, the 'learning' from television as measured by recognition is short-lived. We must then appreciate that none of the three studies actually approached a behavioural outcome (i.e. playing comfortably with the strange children). All are variations on a theme of measuring attitude change and as Silverman's study showed in this area, behaviour is different from attitude. As Gorn et al point out, the reason that Bogatz & Ball found a pro-social effect after two years rather than one could have been the difficulty of the test they used. It could also, given the stereotyped nature of the test, which consisted of choosing a happy or sad face, have been a totally conditioned reaction. In the U.S.A. the stereotypical image of blacks ('darkies') to this day, is the happy-go-lucky, care-free image, which could well prove attractive to American white children who are entering the school system.

The Canadian study was replicated (Goldberg & Gorn, 1979) using Japanese-Canadian and native Indian child n in the inserts. Again, more of the experimental group chose non-white playmates, from the photos, than the controls. In this replication however, the same children were also questioned again on the following day. By this time, some of the experimental group had changed their preference back to white, yielding an almost identical pattern of choice to the control group. "Once the initial impact of TV had worn off, the forces that led white children to prefer white playmates seemed to assert themselves. Unfortunately, questions directed at obtaining reasons for the shift in preferences in

the experimental group did not elicit any reactions that the children could verbalize." (p 30 with my emphasis). In addition, they conducted small extension of the study to 40 lower income children. There was no generalization; ninety percent of these children still preferred whites as playmates. The authors conclude that as was learnt from 'Sesame Street', it is often the most priveleged children who benefit most.

Again we see the now familiar pattern of results, an initial effect (for some) conveyed through positive features -- "looked prettier" -- Goldberg & Gorn contemplate classical conditioning of TV characters with "the pleasant settings, music, play activities" (p 29). Secondly, we see the rapid decay of effect. Goldberg & Gorn also suggest an actual interaction with multiracial groups after viewing, as above.

Overall, these studies show that sheer familiarity combined with positive affect produces immediate recognition and a pseudo choice. As noted above, none of the children could conceptualize a reason for changing their mind the next day which is a fair indication that there was no real thinking or concept behind the initial 'choice', apart from the descriptors of hair, colour, etc.

Gorney et al (1977) report that a pro-social diet induced less aggressive mood and reduced hurtful behaviour in adult males, where helpful or hurtful behaviour was recorded surreptitiously by their wives. We are not told whether S's watched more than their diet (approximately 20 hours in a week) and it is difficult to believe that between 7 and 11.00 p.m. that none of the wives did not watch with their husbands. In addition such items as 'husband volunteered to assist with dishwashing', presumably the day after the viewing, could be due to a multitude of

factors. "Differences in means among the groups were not significant" but some significant differences were teased out of cross-tabulations and levels of hurtful behaviour. (p 173) "Both pro-social and violence groups significantly declined in social affection and surgency" and the general picture for positive mood over the week is of a decline. (Loye et al, 1977, p 210) The authors suggest a tiring of the experiment and testing. They then conclude that "the contrasting increase in aggressive mood for the violence group looks even more impressive." (p 210) but it is in the same direction. From their table 1, p 213 (1977) we extract the following Table 9.2

Table 9.2
Difference in Level of Hurtful Behaviours by Extreme Contents

	High %	Medium %	Low %	
Pro-social	23.5	41.2	35.3	$x^2 = 3.78$, d.f.= 2
Hurtful	35.6	37.8	26.7	n.s.

While Loye et al report that comparison of the pro-social viewing group with the natural group yielded a significant difference, they do not mention that the difference between the pro-social and hurtful groups was not significant. Presumably their selection of hurtful (violent programmes) was more violent than the natural selection, in which case the null hypothesis is supported. Once again pro-social television has had no particular pacifying effect.

Buerkel-Rothfuss, et al (1982) began a detailed study with the proposition that "television can be a valued source of learning about family roles and may be extensively used by some children" (p 192). In particular, they expected that children's learning from TV would be greatest when they had less direct experience with and communication

about family roles, and heavy parental guidance toward viewing. Additionally, they predicted "that the more children believed th television families were similar to real families and that they could learn from television, the more they would learn about family roles from TV." (p 193) These expectations were only partially met (p 198). Despite the fact that the study measured perceived learning (from children's reports) rather than testing learning directly, and there are statements to the effect that "children's exposure to family programs which portray affiliative communication among family members leads them to perceive that real-life families are more affiliative" (p 200) both the data and the text show the powerful effect of interpersonal behaviour. Even negative comments by parents, i.e. conversation per se, enhance(s) the correlation between children's viewing and beliefs about the occurrence of supportive behaviour in real families.

Similarly, the study found that viewing more verbal aggression and less affiliation in families also leads children to perceive real families as affiliative (p 200). In brief, it becomes obvious that there is no one-to-one relation between watching 'happy families' and believing in them. As Buerkel-Rothfuss et al do not provide the correlations between parental and television influences, which is a failing noted elsewhere, we cannot say definitively that it was parental behaviour which was most persuasive. But the order in which these factors are presented in the last paragraph is instructive.

> "Overall, results of this study provide support for the claim that parents can intervene in the process of learning about social roles from television. The control parents exert over viewing, the shows they guide their children to watch, the comments they make about television families, the shows they watch with their children, and the amount of time they spend talking and interacting with their children can all make a difference in the beliefs those children hold about how

> family members behave in the real world. Specific program content also makes a difference, as do parents' specific patterns of response to television." (p 201, my emphasis)

Related, distantly perhaps, the iconoclast Harlan Ellison (1970, 1983) thinks that television has finally come into its own by finding a job it can do and do well, and that is purvey sex. Regardless of whether the context is the traditional wife and mother syndrome, or liberated Virginia Slims, "most commercials use sex as it was intended to be used, as a corrupter of morality, as a polluter of our precious bodily fluids, as a leader-astray of the young, and as a balm to our weakened spirits." It achieves this by teasing us. (p 44-47) Or, in other words, many of its sexual associations are preconscious, subliminal. Of others we may be aware, although they are portrayed by inuendo rather than explicitness.

There have been attempts to measure the effects of TV's sexual emphasis on behaviour. This is not to presume that a heavy emphasis on sexual material is taken to be pro-social. However, it is possible to argue that sexuality on TV could be as educational as any other material. But the reason for its inclusion here is that from this data we may draw other lessons for our learning about television's power to alter behaviou: Baran (1976) presented a correlation matrix of data from 14 to 18 year olds in Cleveland, Ohio.

The matrix has been separated in this analysis for logical reasons as follows:

If virgin; leave out variable 4 -- "was first coitus satisfying?"

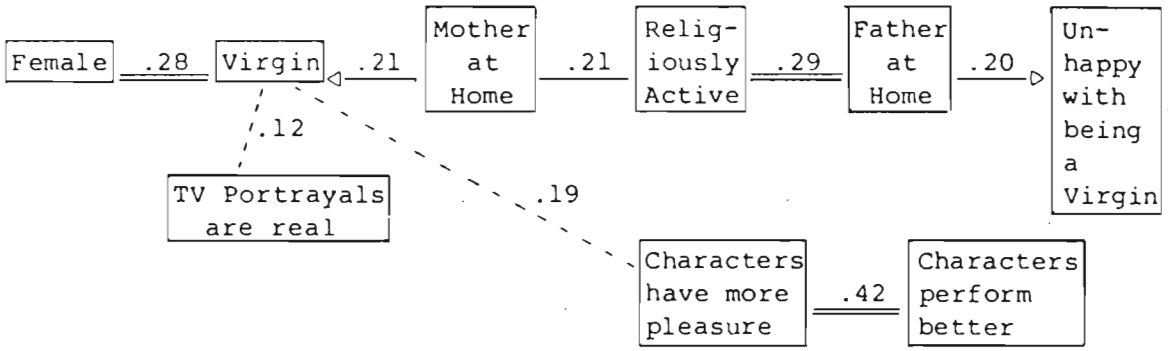
If first coitus; leave out variables 2 & 3 -- "are you a virgin?" and "are you happy being a virgin?"

See Figure 9.1

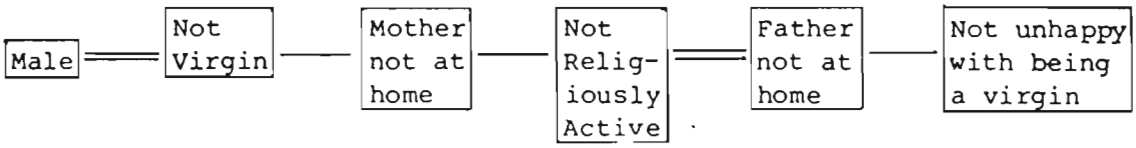
Figure 9.1

Relation Between Televised Sexuality & Adolescent Behaviour
(from Table 1, p 65)

A. For Virgins

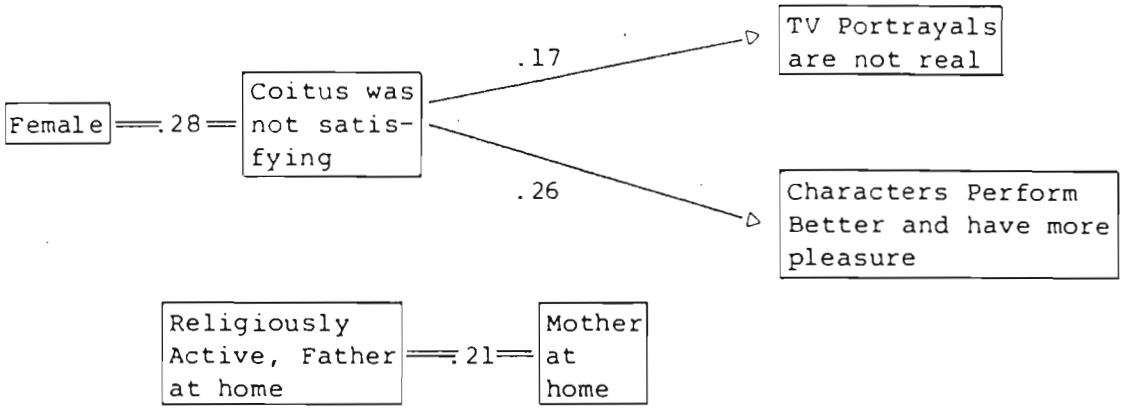


The correlation between the perceived reality of TV portrayals of sexuality is below $p < .05$ level ($r = 0.17$) and is therefore irrelevant to virginity. Perceptions of characters as performing better than real people and enjoying it more have no primary link with the main cluster. There is a marginal but secondary link to virginity but obviously for girls this state is determined by parental and family climate; living with parents in a religiously active home. The picture reversed, of experienced males, is of course no more influenced by television.

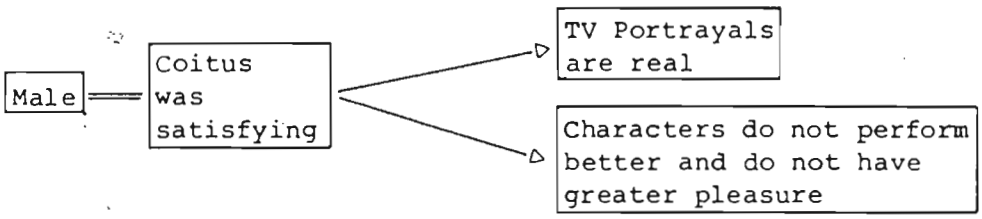


But it does support an interpretation of differential socialization of girls and boys. Being happy with being a virgin is a doubtful variable in this shadow graph but does convey the impression that for males, particularly those from secular and/or disrupted two-parent families, sexual experience is not necessarily a highly motivated or directed personal goal, but merely an expected fact of life.

B. Non Virgins



There are no significant correlations between the family variables and sexual experience. Satisfaction with first intercourse is significantly tied to television portrayals of sexuality. Causality however, could go either way. Because so few variables are involved, we are given little clue as to why the girls began their sexual lives. While A tells us that religion and family influence girls towards virginity, B does not tell us that television influences them towards intercourse. All we know is that once coitus has occurred and been unsatisfactory, TV characters are seen as portraying greater competence and pleasure, but as unreal. It is also possible that high expectations engendered by these characters led to intercourse and therefore dissatisfaction. But both remain hypothetical. Reversing this graph gives us:



This graph for satisfied males cannot answer the question but it does raise the probability that a satisfying sexual experience leads to perceiving television's sexual portrayals as real and no more satisfactory than their own. For males then, experience in the real

world would appear to be more powerful than television's sexual content, while for females this is far less sure. There is also the possibili that the male experience was no more satisfying than the female, but they couldn't admit it.

This data gives some insight into experienced and inexperienced females, but only experienced males. There could be no clear-cut answer here to the question of television's influence on sexual behaviour as opposed to its persuasiveness in regard to stereotypes, but both studies were questionnaire, recognition type. Most studies of course are, and the difficulty is as noted elsewhere in this thesis: it is simply much easier to get the right answer when it is already presented. In the case of stereotyping and heavy viewing, a mechanism may operate whereby the most familiar answer is chosen regardless of other factors. And for heavy viewers, the most familiar answer will be the television answer. But even measured by questionnaire, the relation with actual behaviour is tenuous. This criticism applies to all such data including the Annenberg School's cultivation theory. While recognition/recall is not the explicit focus of debate, very similar issues are raised in the interchange between Blank of CBS (1977) and the Gerbner team. (1977)

If human beings of the opposite sex (there is very little homosexuality on regular or prime time television) were indeed to be treated as products, we would expect that adolescents would be simply fornicating all over the place. This appears not to be the case, although opinions differ as to whether or not the sexual 'revolution' amongst adolescents has been predominantly attitudinal or behavioural (Baran, 1976). Wha this data indicates is that television's influence on sexuality is mediated substantially by the forces of reality.

While this work has attempted to avoid the question of televised violence, the same perspective may apply. It could also be expected to apply in the general area of pro-social TV or social marketing such that fundamental attitudes and orientations are set, at least at base-line level, by family and cultural practices. Thus, while the familiarity-recognition equation may be satisfied in the immediate short term by buying, for example, a 'Life: Be In It' T-shirt, it is simply an effectual, short-lived reaction bounded by deeper cultural forces. Such appears to be the effect of pro-social television for children: full of warm feelings, the immediate effect is to push the 'help' rather than 'hurt' button, but the specific actions are shallow, automatic and unconceptualized. They are therefore incapable of being generalized to a strategy.

There may well be some good experimental evidence for pro-social television being capable of inducing pro-social behaviour. But we certainly cannot deduce that as a finding from the current available data. This review of the literature has a ring similar to that of the Schramm cases, an almost desperate desire to prove that television does fulful its pro-social promise. Consider this example: on p 258 (Comstock et al, 1978) we find a report of a study where "there was a difference that approached significance" (emphasis is mine). They then conclude "viewing the pro-social spot increased cooperation and decreased competition"! This would be generally unacceptable. There is also a difficulty with consistency. Learning pro-social behaviour cannot be divorced from learning from television as a general class of behaviour. Yet we find in their section on 'learning' that "central to our analysis is the distinction -- troublesome but important -- between acquisition and performance. It is troublesome because acquisition is unobservable

in any direct sense." (p 263) On p 271 they continue, "measures of the sheer amount of information recalled from a stimulus, however, are not very good indicators of comprehension in the fullest sense. Rather comprehension is better assessed by studies that explore the developing child's ability to integrate the information in a television show." And as we have seen above, children seem not able to do this. If Comstock et al had applied their distinction between acquisition and performance to their previous discussion of pro-social media, they may not have come up with such rosy conclusions.

In Summary:

Despite some ambiguities and methodological difficulties with this area, there are some fairly binding conclusions.

(a) Compared with the television-aggression link, pro-social is more tenuous and nebulous; opinion amongst researchers is certainly more divided, cautious and fraught with qualification

(b) These are, in part, a reflection of inadequate conceptualization, but all the difficulties also suggest a failure to meet expectations; if aggressive content is effective, why isn't pro-social? The question is Newtonian which is part of the answer. There is still a question however as to how much television's content determines the aggressive behaviour. Remember that the Singer team found that the best single predictor of aggression was viewing 'Sesame Street' -- the pro-social, educational prototype. It is still as likely that it is the medium which is doing the damage (Emery & Emery, 1976, p 95) in which case we would not expect much of any pro-social content.

(c) Recognition and its power transmitted through affect and perceived belongingness is as obvious in the choice of playmate as it is in the choice of soap powder: it is familiarity built upon attractiveness.

(d) But there is little or no evidence for pro-social television having a lasting effect. It is most effective at the level of goal-seeking; of recognizing objects rather than learning concepts which is not a good basis for education as genuine choice. There is some evidence that in the most heavily controlled cultural areas such as family and sexual relations, television has certainly been more limited in its effects than in the peripheral areas of commodity marketing. This suggests even more strongly a fundamental distinction between its influence at the level of goal-seeking rather than purposeful, let alone ideal-seeking behaviour.

(e) We may now return to the critical dimension at stake here which is television's ability to convey conceptual knowledge. From the many studies surveyed in more or less detail, it is pretty obvious that television simply does not operate at the conceptual level. Generalization (or abstraction) is a rare conclusion from this pro-social data and while this is a powerful argument against the use of television as a positive cultural force, it is also a pointer as to how the medium may be more responsibly employed; if we decide that this is even a possibility.

(f) The concluding statement from the National Institute of Mental Health (U.S., 1982, p 51) to the effect that if children "look at

pro-social programs, they will more likely become more generous, friendly and self-controlled" is overly simple, and indeed, dow right doubtful. That television is a "potential force for good" contains some very big 'ifs'.

Before we attempt these conclusions, we must survey the literature about inducing fitness and health which is certainly more amenable to a concrete, specific analysis than is cooperation or friendliness. From this literature we may be able to draw more detailed lessons about the pro-social potential of the television medium.

(ii) Fitness and Health

Galst (1980) investigated the effectiveness of pro-social commercials containing a didactic PSA relative to commercials for products with added sugar, with and without the comments of adult co-observers. T dependent measure was behavioural; the children's actual choice of snack.

The final sample comprised 65 children from three to seven years. Children were randomly assigned to four experimental groups plus a control group (no exposure to any media). It is important to note hat all children were from the one school. The five conditions were as follows:

Control (CT)	Neither any form of TV or face-to-face comment
Exp. (NS-C)	TV for no-added sugar product plus positive face-to-face comment
Exp. (S-C)	TV ad for sugared product with negative face-to-face comment
Exp. (NS-NC)	TV for non-added sugared product alone
Exp. (S-NC)	TV ad for sugared product alone.

Note: There was no condition of face-to-face comment or discussion alone.

The study began with a two-week baseline period during which the children were allowed to select a daily snack from a table of all advertised products and similar product types. Groups were found to differ on their rate of selection of sugared products. These figures are not reported. Once the experimental period began the children continued to choose their snacks immediately following the session. Table 9.3 presents the actual proportion of snack choices for products with added sugar in each condition, for the four weeks of the experimental period. The statistical method used was analysis of co-variance which showed that the five conditions differed significantly from one another during intervention weeks three, four and five, but not at week six. The following graph using the means presented in this table shows exactly what happened over the period.

Before we go on to examine this data let us remember that we are interested in which configuration of media most transformed the behavioural choice of snack, away from sugar and over the long term, i.e. which medium has the greatest potential to make a lasting change in choices made. We are interested then in the effects of the various media regardless of the original level of consumption.

Figure 9.2 Average Proportion of Snacks with Added Sugar Content Selected During Four Weeks of Experimental Intervention, Corrected for Initial Baseline Difference Across Groups

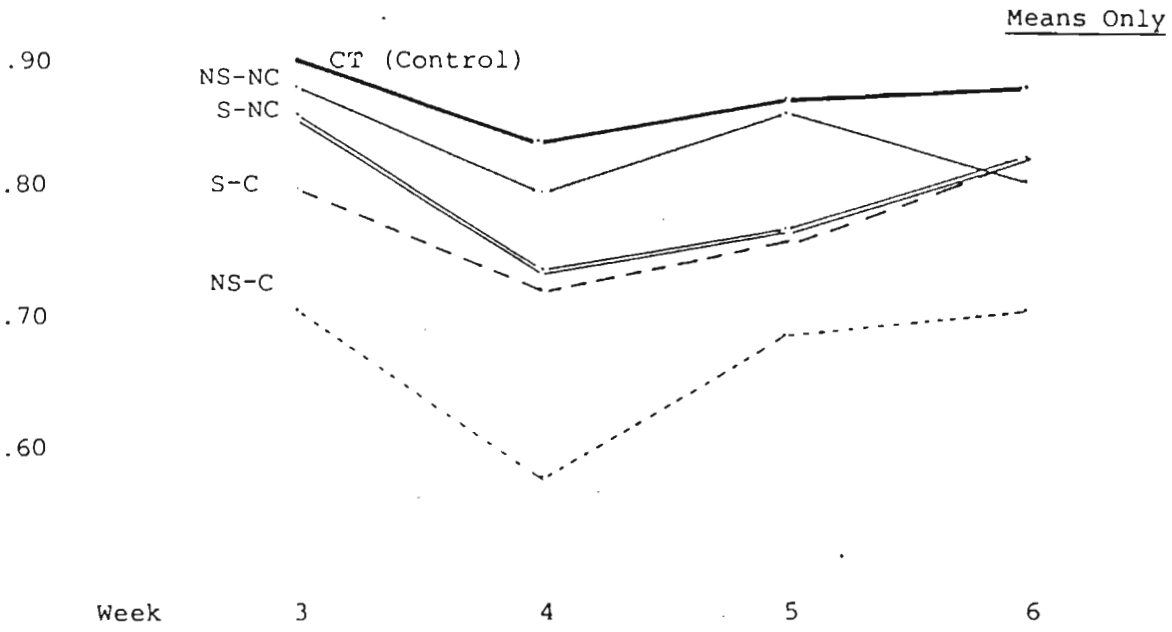


Table 9.3

Effectiveness of the Five Conditions As Measured by Choice and Questionnaire

Condition	Decrease in Proportion Selected	% Decrease in Consumption	Questionnaire Scores	Ranked by Consumption	Effectiveness Questionnaire
NS-NC: TV Alone	.07	8.0	23.4	1	3
S-NC: TV Alone	.03	3.5	22.6	2	4
CT: No treatment	.02	2.2	20.5	3	5
NS-C: TV & pos. comment	0	0	25.7	4	2
S-C: TV & neg comment	.03	-3.8	31.0	5	1

Kendall's T = -0.4 n.s.

At the end of the experimental period the children were also asked to fill in a questionnaire. They received one point for each product they correctly identified as either being a healthy snack or one containing too much sugar.

Table 9.3 shows how the five conditions performed in terms of decreasing the consumption of sugared products and compares this actual choice with the results as measured by the questionnaire. It also shows that over the experimental period the most effective condition for reducing consumption of sugared products was presentation of a TV ad for non-sugared products without further comment. This group dropped its consumption from a proportion of .88 to .81 giving a percentage decrease of 8.0%. Second most effective was a TV ad for sugared products again without comment. This may appear paradoxical until one remembers that the children, through discussion, would clearly have guessed the purpose of the experiment or at least would have formulated its relation to other external messages about sugar being bad for you. The ad in this condition would have triggered such recognition. The control group was intermediate in effect which again relates to the fact that all children were from the same school, and none could be isolated from the effects of the experiment per se. Both the conditions including face-to-face comment were ineffective in producing a decrease in consumption. In fact, the TV ad for sugared products plus a negative comment, produced an increase in consumption over the total period. No comment versus comment for sugared and non-sugared ad yields a highly significant difference ($X^2 = 37.1$, $df = 1$, $p < .001$).

Our learning from this is perfectly clear: the television medium was a more powerful inducer of change than was the face-to-face comment.

Indeed, where the two were in competition as in the S-C condition, there was an increase in consumption. Similarly, the addition of a positive comment to the NS ad reduced its effectiveness, from an 8.0% decrease in consumption to no decrease at all. This contrasts sharply with the conclusion drawn by Galst that "most effective in reducing young children's selection of snacks with added sugar was the presentation of commercials for food products without added sugar and pro-nutritional public service announcements with accompanying positive evaluative comments by an adult co-observer. Mere exposure to these television presentations did not influence the children to select unsugared snacks with greater frequency, however." (p 937)

If we then compare the children's choice behaviour to the answers given to the questionnaire we see clearly the differential effects of television and human communication. The negative and positive comments certainly conveyed more information than the TV alone conditions as indicated by the questionnaire scores. As Galst states "children received one point for each of their questionnaire responses in which they correctly identified a product as either being a health snack or one containing too much sugar." (p 937) This indicates that recognition rather than recall, e.g. 'name some healthy foods', was used. Since both sets of data were obtained by recognition we may conclude again that television and human communication are qualitatively different media in terms of information processing (Table 9.4). The negative correlation (Kendall's T = -0.4) between the ranks of change in consumption and knowledge by questionnaire shows again the relation between the media and their effects (Table 9.3).

Table 9.4 Relation Between TV, Face-to-Face, Knowledge 'of' & Persuasion

By Recognition

	Knowledge of	Persuasion
TV Alone	lower	higher
TV & Human	higher	lower

Both measures are strictly knowledge of, but it is obvious that this is not translated into behavioural choice. The control group, as would be expected, showed least learning as measured by verbalization. Had this experiment used a questionnaire based on recall, we would have expected to see even greater discrepancy between the consumption and questionnaire data.

The lessons from this analysis so far are:

1. If one wants to reduce the consumption of sugared products it is advisable to use a TV-alone condition followed by immediate opportunities for recognition and consumption

2. Avoid a condition where a face-to-face message is in direct competition with TV advertisement.

3. If one wants to induce learning which is available for recognition by verbally administered questionnaire, use a human contact condition.

4. Do not use questionnaire data to indicate actual choice behaviour.

As we have become alerted to the rapid fading of the persuasiveness pro-social ads, we now examine the data in more detail to grasp the dynamic operating between the media conditions. As the graph shows there was a change in direction between weeks three to four and four to six. Without exception, the proportion of sugared snacks selected dropped from week three to four, and rose from week four to six. Thus if we are to consider choosing a medium with which to persuade children to reduce their consumption of sugared products, we must consider which medium is likely to have most impact in the long term. Table 9.5 illustrates the short versus the long term phenomena.

Table 9.5

Comparison of Short and Long Term Effects

Condition	A. Weeks 3-4 -- Initial Effect: Drop in Proportion Selected	% Decrease in Consumption	Rank	B. Weeks 4-6 -- Recovery: Rise in Proportion Selected	% Increase in Consumption	Rank
Ns-C	.13	18.3	1	.13	22.4	1
S-NC	.12	13.95	2	.09	12.2	3
S-C	.07	8.75	2	.10	13.7	2
CT	.06	6.7	4	.04	4.8	4
NS-NC	.08	2.3	5	.01	1.25	5

$T = 0.8$

It is obvious that the experiment was a major environmental event which changed, in the first instance, the choice behaviour of the children, including the control group. Probably every child in the school, acquainted in any way with the project, would have shown some minimal drop in consumption of sugared snacks for weeks three to four. We are exploring however, the long-term rather than the greatest immediate

impact and must therefore examine the differential rates of recovery to more 'normal' behavioural patterns. The media conditions for immediate impact are presented in rank order in Table 9.5A.

Clearly the most effective in the short term was a TV add for no sugar with a positive comment. Second most powerful was an ad for sugared products without comment. Least effective in producing immediate impact was the NS-NC condition. If the experiment had ended at week four, Galst would presumably have concluded that the NS-C condition was the most influential (as she in fact did). But after week four, every group gradually increased the proportion of sugared snacks selected, back towards the level shown at week three, and the S-C condition ended up choosing more at the end that at week three (Table 9.6).

Table 9.6

Rate of Recovery Following Week 4

Condition	Between weeks 4-5	Between weeks 5-6
S-C	4.1%	9.2% accelerating
S-NC	4.05	7.8 accelerating
NS-C	17.2	4.4 slowing
CT	3.6	1.1 slowing
NS-NC	7.5	-5.8 slowing

When we compare parts A and B of Table 9.5, we strike the paradox that the conditions which had the greatest initial impact also showed the fastest rate of recovery. Again we see that in the longer term the condition NS-NC remained the preferred treatment. While it had least immediate impact it showed the least recovery, giving it overall the greatest effectiveness (see table 9.6).

Table 9.7 A & B shows that it was the sugar/no sugar content of the ads which contributed to this effect, not the presence or absence of face-to-face comment.

Table 9.7

Differential Effectiveness of Ads & Comments:
Mean Percent Increase in Consumption
of Sugared Products in Recovery Period

A	Weeks		B	Weeks	
	4 - 5	5 - 6		4 - 5	5 - 6
TV Sugar	4.08	8.50	Comment	10.7	6.8
TV No Sugar	12.40	-0.70	No Comment	5.8	1.0

$X^2 = 15.29$, d.f. = 1, $p < .001$ $X^2 = 1.34$. n.s.

Clearly the recovery was still operating at week six for the two conditions which featured TV ads for sugared products while it had started to slow for the rest. Again, we note that while the condition NS-NC showed some relatively high signs of recovery from weeks four, to five, it slowed most sharply from week five to 6. It was in fact the only condition under which the recovery did not continue between weeks five to 6. In all ways then, it contributed most to influencing the actual behaviour of the children away from sugared foods.

If we were to extrapolate from this data to a longer term, we would avoid the conditions S-C and S-NC, those which use TV ads for sugared products. The power of this medium combined with the immediacy of those products for recognition and consumption exceeds the power of face-to-face communication. Had the experiment continued longer, it is possible that the children in the two sugar TV conditions would have continued to increase their consumption while the pro-social spot groups would have maintained a 'normal' intake. In other words, there may be evidence here that while all TV effects are short-lived to some extent, those

advocating sweetness or other 'desirable' tastes, are longer-lived than the pro-social, or those smacking of didacticism.

Why did Galst come to such different conclusions? First, she confused level of consumption with the effects of the media conditions. This influenced her analytical method which, while useful, appeared in this case to interfere with the common sense process of saying which media condition most influenced the consumption of sugared products over time. As I have shown, it is not simply a question of whether the conditions were significantly different, but one of how they operate. We must look primarily at media effectiveness for change rather than the actual proportion chosen.

Secondly, this re-analysis shows that the assumption that there is 'knowledge', or only one way of knowing can lead to explanations which distort the meaning of the results obtained. Galst's failure to find a relationship between consumption and the questionnaire scores lead merely to the statement that "there are a great many (potentially) intervening steps between knowledge and behaviour." The other interpretation favoured here is that the television-recognition formula operates regardless of whether knowledge awareness is present or not.

In many ways this was a less than ideal experiment. It does confirm though, much of the theory and empirical data previously discussed. In particular, for the purposes of this chapter, we note its decided similarity to that of Silverman & Sprafkin (above). Use pro-social television, certainly, but on no account contaminate it with its opposite, as this appears to be much more effective.

In a long term and extensive, national anti-smoking and pro-health campaign, a joint Finnish and American team has attempted to evaluate t effectiveness of mixed media efforts and their various components. All of the stages including the experiment in California attempted to teach specific behavioural skills for changing life style and in the U.S. case, directly measured 'hard' effects: blood pressure, weight, cholesterol, etc. (Farquhar et al, 1977) Evaluations amongst the Finnish population relied on self-report with some validation by personal interview. (Puska, et al, 1981) Results appear mixed but as McAlister et al pointed out "it is impossible to distinguish the effects of the television program itself from the promotion and publicity that surrounded it." (1980, p 378)

An earlier report, however, from the Californian team reported that "the changes that took place via intensive instruction are clearly mor impressive than those that took place via mass media alone. However, it is evident that mass media alone, when applied to the learning of appropriate skills, can also be effective." (Maccoby & Farquhar, 1975, p 124) Every possible medium was used in Finland and in the second phase of the North Karelia project, active participation during the viewing was elicited by work books, self-tests, discussion guides, etc. In addition, and this was a critical element in the whole effor , face-to-face self-help and support groups were organized. (Puska et al, 1979) Given all this massive effort the results must be somewhat surprising, if we assume that television is an educational medium and that face-to-face discussion and support could only increase its already powerful effects.

The Californian experiment produced by far the most positive result wi an estimated drop in the overall cardiovascular risk factor of 23-28% in the treatment communities, which was mainly contributed by the high-risk

group. It is obvious from their Figure 2 (p 1194) that during the second year of the study this risk factor amongst high risk people was also dropping in the control community. It is also very important to note that Farquhar et al (1977) measured immediately at the end of the campaign. The Finnish project has shown that of the percentage who give up smoking for a month, the great majority relapse by six months. Puska et al reported in 1979 that 41% of those who completed the program with self-help groups stopped smoking but this had dropped to 21% after six months. For the country as a whole, the figures were 10-20% immediate success rate declining to 5-10% long-term (six months). "The groups thus doubled the effect of the programme." (p 23) After one year for the country as a whole 0.8% of all smokers had become non-smokers (p 12). Following the 1980 campaign, the effects of which were validated, the team reports that "The estimated real effect of the programme was that 0.5% of all smokers stopped smoking and remained non-smokers for at least six months." (Puska, et al, 1981, p 245) While the authors claim that at the national level this proves a cost-effective method for health improvement, a 0.5% reduction in smokers is hardly a dramatic statistical demonstration of television's power to educate towards a healthier life style. This is particularly so when they claim "large segments" of their population had expressed a desire to change this behaviour. Reported changes in dietary habits were 3-5% but as these were not validated and there was over-reporting for smoking changes, doubts must remain.

The effects of the intensified field activity in North Karelia appear also to have been disappointing. In the 1979 report, group activity showed an approximate doubling of the effects of the campaign. The results of the 1980 spring campaign show similar effects only for those behaviours which were not validated. No differences were found between

North Karelia and the country as a whole for changes in smoking or weight loss. This comparison suggests that the group support encouraged only over-reporting of change. Rather than maximize the possibility of real behavioural change, group viewing may have intensified television's power to confuse the line between myth and reality. They may have supported each other only in the belief that they were improving their health.

Another interesting confirmation can be found in these studies. Less education was associated with greater frequency of viewing the program which is in line with other studies of SES and viwing habits, but educational level was not associated with any effects of viewing. If number of programs viewed had increased the behavioural effectiveness of the campaign, those with less education should have shown more change. We must argue, therefore, that watching the program had little effect. There is some evidence that behavioural skills taught via TV are more successful with the better educated (Hill et al, 1982) but these are also more likely to have picked up information from, or have been persuaded by, radio and print. They similarly already enjoy health advantages.

These health campaigns suffer from a major disadvantage in that television appears most powerful when there is a positive response to be made. Buy X and improve your sex appeal. This is qualitatively different from having to give up, or not buy, something, particularly when that something has also been promoted in association with desirable personal characteristics.

A study of television's role in combatting alcoholism in Pennsylvania has been reported by Dickman and Keil, 1977. Its major goal was to crystallize public opinion around the perception of alcoholism as a

social problem, and its ultimate puprose was to motivate community forces into some form of corrective action. It was an expensive and sophisticated campaign but there was little impact. "The evidence indicates that the campaign was more likely to generate awareness than to motivate people to take concrete steps to solve a problem. However, because heavy alcohol consumption in Pennsylvania is concentrated among men in the 20-35-year age groups, a major failure of the campaign was in its inability to reach that segment of the population which is most in need of alcohol information." (p 590)

None of the demographics of sex, race, or degree of urbanization were significant predictors of familiarity with the message, with one exception which consisted of an over-representation of males aged 18-20 years. But there was little evidence to suggest that the TV series attracted any interest outside of the typical audience for public broadcasting stations. They conclude "The use of television, or public television as a specific medium, as a method of communicating public health information, may not be as successful as the creators of social policy had hoped . . . Promotional efforts in general were more important than those of television broadcasting . . . the mass media were more influential in gene ting awareness than were efforts on the part of community organizations. Such failures to stimulate action and group involvement have been reported elsewhere and have raised serious questions about attempts to induce social change by means of the media." (p 591) This study of course suffers from all same the disadvantages as the anti-smoking campaigns.

Lessons from an 'effective' anti-drug abuse campaign have been aired by Schmeling & Wotring (1980). Starting from the premises that there will

be low or no interest amongst the audience and that attitude or behavioural change is not a realistic expectation for any PSA, they s the goal as increased awareness of the 'hidden' drug abuse in all of us. (p 35) They did not attempt to communicate too much, just a simple message or U.S.P. "Think about all your drug habits . . . if you don't it'll cost you." (p 35) Target audience comprised upper-middle class, middle-aged head of households, predominantly male, on the grounds that this group wielded the power to make community change. Three 30-second spots were produced and logistics were carefully organized.

Evaluation revealed that viewing was high and message was remembered (we are not told by what method, except they could 'recall') and liked it. For the best spot, 53% of the full sample remembered the meaning. They found less impact in terms of modifying audience drug-related attitude and perceptions, and where there were differences between testing waves at different points in times, "they did not appear to be lasting". (p 36) The authors were well satisfied with their results because their expectations were modest (p 37) and their rationale, long term.

> "Remember, anti-drug-abuse mass-media counteradvertising cannot reverse our pro-drug cultural norm. There is too much competition. The most we should expect from the best messag we could develop would be a flicker of understanding somewhere in the back of the viewer's head. If enough resources are invested in media work over a five-year period and enough lights of understanding start to flicker, viewers will find other viewers, and they will talk. And that will be the beginning of change." (Schmeling & Wotring, 1980, p 36-37)

Their strategy over the longer period is to coordinate campaigns to convince policy makers to release resources allowing them to interver directly in school courses, producing stronger anti-drug agencies and smarter consumers. They are optimistic that this strategy will work.

Hill, et al's study involved several aspects of breast cancer education and used before and after measures in TV exposed and non-exposed areas, surveys of general practitioners and a sample of breast cancer patients. Recognition measures from the population survey show increases in knowledge of the disease, confidence to self-examine and self-report of practising self-examination. The recall measure of spontaneous reference to the campaign failed to show an effect between exposed and non-exposed. Behavioural indices amongst the population similarly failed to show an effect but there was a significant difference in the number of GPs who performed breast examinations and taught BSE. This, however, tended to decrease after the initial increase at campaign onset. Within the cancer patient group there was evidence that the campaign had some behavioural effects. Socio-demographic analysis of the effects showed that the campaign increased the gap between the disadvantaged, older and less educated women, and the relatively advantaged. Differences in the behaviour of cancer patients and the population at large illustrates the importance of motivation. Patients clearly are motivated to practice any method which will increase their survival. Television, on the other hand appeared not to induce any such motivation. If we accept that the self-report of BSE via survey data is accurate and not over-reported as found in the anti-smoking studies, we may speculate further on differential campaign effects where the object (breast) is tangible and immediately to hand, and where, as in 'Life: Be In It', the goal is nebulous or conceptual and long term. Immediacy and tangibility approximate the 'product at point of sale' which completes the advertising-recognition or potential to kinetic energy equation. On two counts then of immediacy, tangibility and positive direction of message, we would expect this campaign to have been more successful than those persuading viewers to give up smoking.

Additional evidence on this relation is to be found in Salzer et al (1977). Called the Gaylord White Project, cable TV or 'narrow-casting' was used to recruit elderly people to a series of free health screening examinations. Three hundred and thirty tenants occupied a building designed for the elderly with free cable access. Programming originated from the basement. Examinations were conducted on the ninth floor. The study therefore had a captive population who did not have to leave the building to respond; both tangibility and immediacy were satisfied and the required response was a positive one.

Programming included spots, didactic presentations around five minutes long, and 'tenant tags' (15 to 30 seconds of information on accessibility). The authors claim (p 366) that no other method informed the residents of the screenings but elsewhere they state "announcements of daily program content were posted in the lobby". (p 365) As they found that 13 people participated (10.1% of all participants) in the screenings without being informed by either the TV or word of mouth, these announcements could have had an effect.

A recognition test was devised, eliciting true/false answers to simple statements reflecting the wording of the messages themselves. This discriminated viewers from non-viewers. In behavioural terms, the participation rate for residents was 39.1% (129/330)

Other results (Table 9.8) indicated that TV and word-of-mouth were equally effective in recruiting residents to the screening program. But apart from the postings in the lobby, all information was initially derived from the TV. Cable TV was certainly effective although in this case it is doubtful if it was cost-effective compared to possible use of

print; for example, flyers to each apartment. To activate the channel, six full-time staff members were required and the cost of production would certainly have exceeded any other method. Nor may the TV campaign have been as effective if the concrete action required were not as immediately present. And it is important to note that the report refers only to a one-off event. There is no way of judging to what extent the campaign affected longer term interest in health monitoring. In all ways, the circumstances pertaining here were ideal for a positive response. Perhaps then it is surprising that only 39% of the residents responded.

Table 9.8

Behavioural Effect of Cable TV Campaign
(from Salzer, et al, 1977, pp 365 & 371)

	TV Informed	Word of Mouth	Uninformed	Total
No. of Participants	59	57	13	129
% of Residents	17.88	17.27	3.94	39.1
% of Participants	45.74	44.19	10.10	100.0

In a series of three experiments, Johnston & Cameron (1979) proved that television could be used successfully to teach people how to buckle their seat belts optimally to avoid injury. As these authors point out, conditions were conducive to high effectiveness; Australians were in favour of wearing seat belts, and while the incidence of optimal adjustment was low, the target behaviour was highly specific and amenable to unambiguous demonstration. Three specific behaviours were identified and demonstrated concretely in a 60-second spot by a surgeon. Mild fear was invoked following reports of its success in previous research.

Observers were trained to make judgements on looseness of belt, incorrect buckle position and twist in webbing. Evaluation was therefore behavioural -- number of those in a random sample stopping at traffic

lights who were wearing belts with or without these defects. Cities and towns were used as experimental sites and controls, with before and aft sampling. The most effective condition was high intensity (three or four showings a night) with short duration of campaign (a fortnight). Doubling the duration was counterproductive and lowered intensity was less successful.

This experiment, although with a concept in mind, optimal adjustment to prevent injury, focused directly on the object with a positively directed message, e.g. tighten it up. The object of recognition was the identical object and the actions required were little more than 'picking it off the shelf'. The mild fear, while certainly not a positive affect, may have had just the right touch of intensity to render the ad memorable at the point of recognition -- putting on the belt. This commercial ma therefore have come close to the ideal formula for a pro-social spot. It is interesting to note that when viewers could not escape from the ad, such as in Wollongong, a month's showing led to considerable irritation, presumably because it was an informative spot. Pro-social information may be tolerated in the short term when its object and purpose is positively viewed, but certainly not over longer periods.

When studies use only recognition data via questionnaire they find, for example, that 80% of subjects report "a meaningful experience" with respect to their primary prevention health viewing (Flannery, 1980). But Flannery does note that even though the health segments of the news were only two to four minutes in length, total viewers and viewing hours declined by one-third during the five week experimental period. Once again, information turned them off and the longer segments elicited anger.

Wright (1979) tested messages with and without a concrete verbal action recommendation to read the warnings on labels. Those 'with', produced a stronger effect on compliance which is as we would expect from the previous chapter. He argues that there may have been undue pessimism in regard to behaviour change because of "the attention given to belief-oriented strategies in attitude-dominated persuasion process theorizing." (p 267) With this we also agree. But while the concrete suggestions were more likely to evoke package inspections that expanding the warning portion in regular TV ads, there was a rapid decay in the effect. Increased inspections were observed only when a person had the chance to perform the actions very soon after message exposure. He suggests larger and more colourful signs and these may well help, but the results generally support the notion that concepts are not the ideal material for television transmission, even when they are concretized into a specific action. Tangible products are more effective than events.

In Summary

(i) None of these studies in any way contradicts what has been learnt so far. From the previous chapter we have inherited the taxonomy of nature of item, direction of message and nature of point of recognition. These have to all intents and purposes been vindicated and confirmed. The nature of television doesn't change simply by redirecting the content. The more successful campaigns appear to have had specific, recognizable objects or places or events and positively directed messages. But objects still appear more effective than anything else.

(ii) We can now add some few further refinements to our learning. Immediacy of object, unavoidability as in BSE and seat belts, are additional advantages. Also, pro-social works better when motivation is

already present, as with the cancer patients. It appears to provide little itself apart from that which is present in the specific affectual base for recognition, which is subject to fade-out and not subject to generalization. The alleged motivation of smokers to give up was not sufficient and the negatively directed nature of this campaign worked against it.

(iii) There is a view abroad that attitude and behaviour change are not possible in the first instance, necessitating a long-term strategy of awareness building and networking.

(iii) The Transformation of Concept to Product

Here we see the 'creative' leap that is the essence of successful pro-social marketing -- the deliberate creation of a point of recognition, such that transformation is effected.

In terms of illustrating the necessity for a tangible and specific product in order to harness the potential energy of television, the 'Life: Be In It' campaign was excellent. We will compare 'Life: Be in It' with 'Project Australia', (from the same team, and this affords supplementary learnings). Tangible products were an original element of 'Project Australia' but this ill-conceived campaign suffered from other defects. 'Life: Be In It' captured a lot of imaginations. It came however under major review with a five-year corporate plan. The use of the term 'corporate plan' may seem inappropriate for the future of such a venture but, as we shall see, it wasn't.

'Life: Be In It' began in Victoria where it was to promote fitness and health. There is no evidence that it met its stated objectives (Watkins,

1981). 'Project Australia' was originally conceived as national revitalization; increased pride in our achievements and encouragement for an improvement in quality of life, products and services, a re-examination of our national consciousness. But its initial reaction appeared to be largely apathy, suspicion and cynicism (Emery, M, 1979, Emery & Emery, 1979). While some of this was evident in the initial reaction to LBII, it was nowhere near as widespread or trenchant. There were several possible reasons for this which I have discussed elsewhere (Emery, M, 1982a). Undoubtedly the greater acceptance of LBII would have to be the creative novelty and charm of Norm, now a national hero, who is no doubt a brilliant and intuitive personification of one of the deeper aspects of our culture; one with whom we enjoy a fierce love-hate relationship. Norm was destined to shoot straight into the Australian psyche and did so. 'Project Australia' contained so such captivation.

The appeal of Norm was affective and subliminal, as was the 'C'mon Aussie C'mon' advertisement which ran prior to 'Project Australia' and which featured a catchy tune. The words and message of C'mon Aussie C'mon were meaningless and absurd, as were those of 'Project Australia', but in marketing terms it was highly successful -- it could be heard being whistled or hummed in homes ar. work places everywhere.

While it was accepted, LBII's achievement of original objective -- to increase community health and fitness -- or its subsequent modifications e.g. 'to get a lot of people to do a little rather than a few to do a lot', is difficult to substantiate. It was soon found that concepts like fitness, exercise, were not marketable commodities to the majority of "television land". (Watkins, 1981) There is still no behavioural evidence that LBII has had any such effects on fitness, exercise or

health, nor has there been any attempt by the LBII consortium to measure such effect. It has however proved a world leader in selling T-shirts and winning marketing awards.

In-house evaluations have been confined to awareness of ad recogntion and the high levels of those found have been discussed as 'attitude change'. The original report had established a clear baseline in terms of hours spent viewing TV and incidence of coronaries. No attempt was ever made to report changes in these two measures, either during or after the initial phase of the campaign. The only measures taken were recognition of the campaign, its message and self-reports of increase in activity.

The first two measures tell us absolutely nothing about achievement of the objectives; the vital step from knowing of something to doing something is absent. The third measure purports to measure this vital step. Even if baseline measures had been taken (and there is no evidence that they were) the results may not mean anything more than that people have been persuaded to talk differently about their activities, not that they have changed their activities.

More importantly, group pressure, particularly in cases like this where the message is pro-social, can induce at least one-third, if not up to one-half of people to verbally conform with what is seen to be expected. The fact that the "vast majority" of 47% of 500 people passed "the acid test", or in other words, said that the message caused them "to think more about how you could be more active", may reflect nothing more than that they were induced by pro-social pressure to say 'yes' to emotionally loaded recognition question. This becomes even more obvious in the immediately following paragraph where we learn that 74% of the

failure by marketing what they knew the marketplace would accept and/or buy, and what the primary medium could promote; that is, tangible, specifically recognizable products.

I have previously analyzed LBII in terms of the prevailing academic paradigm, showing that the campaign should have been a success worthy of its prizes in 'societal marketing'. Discussed in terms of Lazarsfeld & Merton's (1949) three requisite conditions for effective social marekting, we see LBII's potential:

> "1. Monopolisation -- the absence of counter-propaganda. While in our complex, uncertain society there are always sources of distraction, competing demands and confusions, there was during the life of the campaign, no counter-propaganda. Nobody was attempting to sell the message 'Get unfit'. Paradoxically, LBII itself was probably a promoter of this message via the attractiveness of its ads combines with its dense, almost saturation repetition. By producing 'good' commercials it kept people in front of the set when they might otherwise have got up to 'put a cuppa on'.
>
> 2. Supplementation -- the effort to follow up with other programs and activities. This was done, and one-day spectaculars attracted some people. As above, there is no evidence of long-term effect. The development of a number of continuing programs in Western Australia, for example, with LBII co-ordinators, has been a spin-off but would have possibly survived without the 'Life: Be In It' logo." (Watkins, 1981)
>
> 3. Canalisation -- there was present an existing attitudinal base for the feelings that the social communicators were striving to shape. It could not be said that Life, Be In It was either essentially new or foreign. Indeed, the original research for the campaign uncovered the existing level of support. While high levels of exercise were not acceptable to a majority of Victorians, the whole range of other messages conveyed, such as: spend some time with the family, have fun, etc., appear to be positive trends with Australian society." (Emery, M, 1982b, p 101)

But it failed, not because it was social reconditioning, but because there was no tangible, specific product. Lazarsfeld & Merton's formulation is all but irrelevant when dealing with television. Fitness,

even with all the suggestions raised in the ads remained a concept. Even in the New South Wales government anti-litter campaign, 'Do the right thing', the objects inviting recognition are generally available. They are tangible, obvious and capable of eliciting the familiar hidden or unconscious connection. Fitness is neither tangible nor obvious. There is no such thing as doing a little bit more which one can run across on the footpath, or notice sitting next to the check-out.

As there was no tangible point of sale for LBII one had to be created. The marketers of LBII did the right thing by their marketing knowledge. They turned LBII itself, through its logo, into a product to become "what the trendy communicators call a 'model in societal marketing' -- a promotion that sold over 750,000 T-shirts and still sells them, especially the bigger sizes; a franchise which, through everything from colouring books to kites, has netted thousands of dollars to reinvest in the program." (Watkins, 1981)

"Watkins' emphasis on the 'bigger sizes' is a clue to the very basic identification with Norm, the fair dinkum Aussie and all-round sportsman. Television wove its magic once again. LBII created a point of sale and it worked. They bought! -- but it had nothing to do with an increase in either health or fitness, or even doing a little more, unless it was doing a little bit more for the GNP." (Emery, M. 1982b, p 102) There is clearly a relation between heavy viewing and heavy viewers.

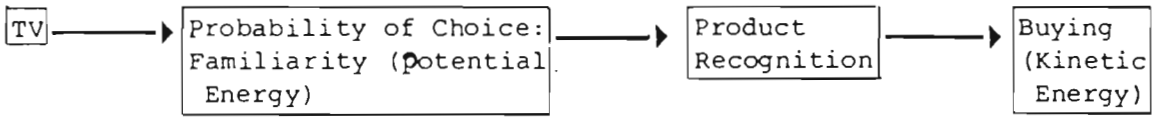
'Project Australia' effectively joined the 'annual procession of failed new products', limping along on cut budgets. Very few T-shirts or c stickers appeared. Thus, while 'Project Australia' created a range of products, the failure to engage the national character at the emotional

level, the cynicism with which the campaign was conducted and its detection by the print media (Emery, M, 1979) were sufficient to create the pause necessary to interrupt the TV-recognition-buy dynamic.

And here we rest our case.

2. Does Pro-Social Television Have a Future?

We have learnt that television can change behaviour, or better, we have seen how it produces purchase of products that might otherwise not have been bought. It also has the ability to produce extremely fuzzy and distorted pictures of more general reality. Our conclusions about how the former, particularly, is achieved were given at the end of the last chapter and checked here with a variety of pro-social content. The formula of:



appears to be sound and we have elaborated it in terms of more specific dimensions, namely:

TV Ad -- positive affect, music, colour, archetypal theme for specific USP
-- with minimal or no information

For Product -- tangible, specific object

With Message -- positively directed, i.e. buy or do, not avoid or give up

Point of Sale -- object as above, with critical identical mark to link with comercial, with
-- immediacy an advantage, and where
-- actions or events are closely tied to objects.

The trick for many pro-social ventures appears to be how to translate a concept into a product. 'Life: Be in It' took the trick, but the product bore no relation to the purpose of the campaign. There may be,

therefore, some concepts such as fitness which are not genuinely amenable in any way to this formula. There may well be others which are. An obvious one is the translation of good nutrition (concept) into good food (products) and I have proposed a strategy for the successful selling of good food elsewhere (Emery, M, 1982b). I will summarize this only briefly as the guidelines differ from the previous set only in that they are more elaborated and defined.

A successful strategy should draw on the distinctive competencies of both television and educational media, such as print. It then becomes identical with the very strict demarcation made by Fox & Kotler (1980, p 25) of 'social marketing' which they claim has evolved from the informational approach. But clearly the TV ads I am proposing would not be informational; this aspect would be covered in different ways. Bloom & Novelli (1981) also note that social marketers usually feel the need to convey relatively large amounts of information in their messages, relative to commercial marketers (p 85). This is, as we have seen a severe disadvantage, and one to be avoided at all costs. As they conclude, "success in the social marketing arena requires greater ingenuity and imagination . . . but can succeed . . . if the problems cited . . . are anticip.ed and dealt with in a creative and logical manner". (p 87) The question is that of applying "marketing thinking and tools to the promotion of social causes." (Fox & Kotler, 1980, p 32)

For nutrition, TV commercials should be as described above and feature specific items from five food groups, as products. Logo and USP should be both auditory and visual, capable not only of affectual-recognition magic, but also of translation into other media. Targetting is not required; ads should be suitable as lowest common

denominator, or archetype for all audiences, at all times. Food is after all a generic. Pros and cons of targetting have been discussed in the context of a changing environment (Emery, M, 1982b).

Considerable and very careful effort must also be put into the educational side of the strategy if genuine decisions are to be made about nutrition. Here I am echoing Rothschild (1979, p 18) to whom it was obvious that for many issues, behaviour change or development can only occur as a result of an educational process conducted through schools or the home. Probable effectiveness and knowledge 'about' are critical for long-term health choices. Remember the decay on pro-social TV messages. Infrastructures and prime sites are in place here for both point of sale and learning. The key to the educational arm is participation in decision-making about what to cook and eat. Because it is fun to cook and eat, or certainly can be within the second paradigm of education, new methods for participative planning and design organizations, such as schools, have huge potential in this area.

This outline is of a strategy which seeks to exploit all media for both short-term (buying and eating) and long-term (educational) goals, such that further educational opportunities are created in the process. It can apply only to concepts which are easily and directly transformable into specific objects. What of our many other concepts and what of television only, or as primary medium?

Many of the answers here have been touched upon above. For concepts which are difficult to transform, there appears little hope. As Bloom and Novelli (1981) point out, the product to sell is often a complex behaviour for which it is "difficult to formulate a simple, meaningful

product concept around which a marketing and communications program can be built" (p 82). The implication here of course, is that if such 'product concept' is not forthcoming, it will be near to impossible to sell the idea or the behaviour.

And it is not simply commercials with which advocates of reform in areas such as nutrition will have to contend. Kaufman (1980) has presented data which shows that prime time programming is a more serious health hazard than the commercials in the same period. Two episodes each of the top ten programs, plus accompanying ads, were coded for all references to food. Beverages accounted for 31% of the references, and of these 53% were either alcohol or soda. Second most frequent were fruit and vegetables, and desserts, and other sweets with 19% each of the total. Meat, fish, dairy products and cereals combined came to 19%. I have re-analyzed and tested this data which is presented in Table 9.9.

Table 9.9 Nutritional Messages from Programs and Commercials
(from Kaufman, 1980, tables 1 & 2)

	Programs (N)	Commercials (N)	
Healthy Food*	28	49	$x^2 = 11.88$
Unhealthy Food	35	17	$p_2 < .001$
Positive Nutritional Value**	22	36	$x^2 = 10.69$
Negative Nutritional Value	70	39	$p < .01$

* This is derived from basic knowledge of the five food groups. Healthy included: meat, fish, juice, milk, fruit, vegetables, bread, unfrosted cereals and dairy products. Unhealthy included soda, frosted cereals, crackers and all desserts and sweets. Miscellaneous, other, and alcohol were excluded. Had I included alcohol as unhealthy, the difference between programs and ads would have been even greater as references were 14:1

** This is derived from Kaufman's analysis using a more complex nutritional index (Table 2)

Table 9.9 leaves little doubt that the presentation of food in programs is potentially more damaging to good nutrition than that in ads. Both forms of classification yield similarly significant differences. Kaufman rightly concludes that concerned groups "may have been overly hasty in singling out advertising as the major culprit in the promotion of poor nutritional habits." In addition, TV characters were usually happy in the presence of food, rarely dined alone and often snacked. Food was used for social and emotional purposes; to bribe or bring about introductions, never explicitly to satisfy hunger. We would expect therefore that the results of viewing these programs would be analogous to the results of the Annenberg's study -- there will be a residual vague impression of what constitutes desirable food and its uses. It will of course be an erroneous one based on a nutritionally misleading dominance of certain substances, namely alcohol and sugar, within a context of positive affect.

The second part of the study is similarly revealing and reinforces the distorted nature of the impressions gained from prime time shows. Characters depicted in these programs and commercials were rated for body type on a scale of thin, average, overweight and obese. Eighty-eight percent of the people consuming this heavy diet of fattening foods were either thin or average. Children, teenagers and young adults were never represented with weight problems. But 90% of the obese shown were black and 80% of the few Orientals appearing were overweight. Negative characteristics such as slow, unpopular, unsuccessful and poor, were also more frequently associated with overweight. This is clearly discriminatory; as Kaufman notes, these figures are disproportionate to television's population of characters let alone reality. Here we find

again that the programming and commercials have different emphases (Table 9.10).

Table 9.10 Body Weight Messages from Programs and Commercials (from table 3)

	Programs (N)	Food Ads (N)	Non-Food Ads (N)
Overweight & Obese	38	10	12
Average & Thin	146	93	210

Programming depicts more overweight and obese characters than either food or non-food commercials (x^2 = 5.63 and 21.53, respectively). The two commercial categories do not differ. Thus we have the following picture: programming portrays a more nutritionally disasterous diet than commercials but it also shows more of the results, in terms of weight at least. There is some minimal correlation with reality but it is certainly not sufficient to compensate for the impact that the (non) nutritional messages would be having. This will apply particularly to children when we remember that their programming draws a heavy component of food ads, featuring mainly sugar, salt and fat, and children on television are never fat. There is little chance that even a vague impression of unhealthy food leading to being overweight could develop. However, the critical feature of this study remains the fact that prime time programming is contributing more, by way of pre-conscious awareness, to poor nutritional choice than prime time advertising.

We are left, therefore, with the conclusion that all television must be transformed to educational and pro-social if we are to redress all the evils and disabilities of current-day television. Is it possible?

The answer appears to be 'no'. As Jerry Mander has argued convincingly, television has proven to be incapable of being reformed. As a technology, it imposes its own inherent biases on the content it purveys. A selection of Mander's limits and tendencies of the technology is sufficient to illustrate why educational and pro-social themes can never become the main fare of the daily TV diet:

> "War is better television than peace. It is filled with highlighted moments, contains action and resolution, and delivers a powerful emotion, fear. Peace is amorphous and broad. The emotions connected with it are subtle, personal and internal. These are far more difficult to televise.
> "Violence is better TV than non violence . . .
> "Superficiality is easier than depth . . .
> "Lust is better television than satisfaction . . .
> "Materialism, acquisitiveness and ambition, all highly focused attitudes, work better than spirituality, non-seeking, openness and yielding. the medium cannot deal with ambiguity, subtlety and diversity". (Mander, 1978, p 323-328)

The second reason that 'good' programming has a severely limited future is simply that most people would choose to watch something else. As Mander makes clear, the producers of TV programs understand the nature of the medium intimately; they also are highly aware of what will keep the viewers glued to the screen and what won't. We have discussed this in detail but as far as children are concerned, I quote again from Comstock et al:

> "We were struck by the relative absence of non-cartoon children's programs designed both to entertain and to educate from most lists of favourites. Although shows such as Sesame Street, and Mister Rogers' Neighbourhood, certainly are cited as favourites by pre-school children, such programs are more frequently cited <u>when mothers respond for their children</u>. The proportion of children naming such programs decreases rapidly with age". (Emphasis is mine. p 185)

More recently, Webster and Coscarelli, (1979) found that 82-84% of six to 12-year olds prefer their favourite adult programs even when the most popular children's programming is available to them. "Any proposed

age-specific programming would need more competitive drawing power . . . if it is to fare better against similar competition". (p 449)

A selection of thoughts about television provided by children in the A.C.T. (Hilvert & Hilvert, 1979) confirms U.S. data. Most mention their favourite programs. No favourable mention was made of any intrinsically educational or pro-social program, with the possible exception of Harry Butler's In the Wild. On the contrary, many complained that so much of their viewing time was taken up with 'baby stuff', and why couldn't such 'good' programs as Prisoner be put on in an earlier slot. On the other hand, many of these children are not above justifying their long hours of viewing and their favourites as 'educational'. The mythology has become rationalization. But one must really query whether the Flintstones matches the definition of educational or pro-social television. certainly does not match the Australian Broadcasting Tribunal's definition of C (children) rated programs. And the ABT confirmed that "C" programs were less liked and watched than non-"C" programs (Marzorini, et al, 1982, p 3).

Perhaps in a totalitarian state such as China, where as we have seen, television is under strict government control, it may be possib to keep within the limits of news, new methods for productivity, education and the aesthetics of orchid growing, but in Western democracies, with pluralistic systems, such as U.S.A. and Australia, there is small chance. Because, as we have seen from our look at public broadcasting, the convergence is towards what people will watch, given a choice, and as it won't be pro-social, we must ask, as does Professor Thomas D. Cook of Northwestern University:

> "Why should any network do it?' The network might get public relations kudos, but such material would be 'likely to earn

> low ratings, be expensive to produce and mean foregoing revenues'" (cited by Walsh, 1983, p 805)

In brief, the realities of the medium are such as to preclude the possibility of large scale pro-social television.

Even if it were feasible, there is still another question of ethics. Again, I have dealt with this and related questions in 1982 and will not reproduce them here. But there is one point here which is most pertinent. It touches upon the subject matter of the next chapter; the extent to which television has contributed to a dissociated culture. While excellent pro-social commercials like those of "Life: Be In It" keep the populace glued to their armchairs when they should be up and about, we have another paradox:

> "One of the features of a dissociated community is an increased level of cynicism. This, together with the value shift documented above and elsewhere, is resulting in a new attitude towards TV itself and the various purposes for which it becomes an instrument. Part of this emerging attitude undoubtedly lies with 'familiarity breeding contempt', the result of increased levels of 'knowledge of' in the absence of a corresponding extent of 'knowledge about'. The other part involves increasing awareness of the nature of the medium and how its magic works". (Emery, M. 1982b, p 105) We also see a small but growing concern about the public interest, our right to information and the right of consumers in general (Kangum et al, 1975). There is also a growing prejudice against marketing. (Steiner, 1976)

Yes! Pro-social television was a nice idea. In some areas for some specific applications, it may still be. As a widespread reformation or renaissance however, there is little hope. For those who hanker after cultural change, the answer lies not in the media, certainly not in television, but in the transformations of organizational design principle (chapter 3). This most fundamental contribution to the set of directive correlations within which we live our lives influences not only our

behaviour but also our choice of media. Rather than tinker around the edges of the problem (and the content of television may still be th periphery of our cultural malaise) it would seem more effective to leave television be (see Large, 1980) and concentrate on creating a broader cultural environment within which people need not search for such a maladaptive aconiche as television.

Chapter 10 The Television Lifestyle: The Disadvantage Cycle

It is possible to conclude from these many studies that television is minimally effective or totally ineffective as an instructive medium. But Cook et al (1975) argued from their reanalysis, similarly to Sprigle, that viewing of Sesame Street may not only not result in a learning gain, but also that heavy viewing actually widens the gap between the already educationally deprived and the advantaged.

This result "has been ignored by the popular press to this day " (Winn, 1977, p 40) which could well be due to the long tentacles of the powerful TV establishment (Tuchman, 1974). But gap widening can also be derived from a simple logical argument based on the well-established adaptations discussed in Part I.

1. Children learn maximally from other humans
2. Middle-class families provide rich, motivating and supportive learning econiches for their children; disadvantaged families provide less of this type of environment, and interact less frequently, particularly if the adult members are themselves heavy viewers
3. Therefore, disadvantaged children will spend more time in front of the telvision set without human communication and without the benefit of previous socialization into a positive learning strategy (Lesser, 1977, p 118-123)
4. Therefore, the disadvantaged child will learn less than the middle-class child, i.e. the existing gap widens
5. These further disadvantaged children then arrive at school when, as we have seen from many sources, the school is simply not able to

narrow the existing gap. Home environment and socio-economic status are just too powerful.

ETV has failed, product marketing has succeeded; but does television as econiche exert a more pervasive influence on the gap between the haves and have-nots, the light and heavy viewers? Does the wider literature support the concept of television as a disadvantaging force? In this section we attempt to survey the many strands which, when drawn together, constitute the field or dynamic of disadvantage. We may then judge the case for maladaption at the medium term level of directive correlation.

1. The Disadvantage Cycle

Two comprehensive Australian reports have left little doubt that the structure of our society has institutionalized socio-economic advantage and disadvantage. "Poverty is not just a personal attribute; it arises out of the organization of society". (Commission of Inquiry into Poverty, 1975, p 1). The evolution of the disadvantage cycle can be clearly identified in these reports, and with varying levels of explicitness comes the message that it is much easier to 'fall into' a cycle of progressive disadvantage than it is to climb out of one. The Commission of Inquiry into Poverty has stressed the prevalence in our society of 'poverty traps' (as above, p 300).

The various indicators of social class are in Australia, significantly and consistently correlated. Occupation, income, education and perceived social class, cluster to form a tight index of rank in the prevailing social pecking order. The Royal Commission on Human Relationships concluded that "the family is the first educator of children in establishing models of behaviour and values as well as through the

experiences it affords the learner." (1977, V.2, p 2) Nor is this just a simple direct relationship of educational resources available within the family for transmission to children. The Coleman study of education in the USA made apparent that the most important influence on whether a young person gets an education . . . is whether the parents really care. An Australian study has similarly shown that "it is the home atmosphere, not the school, which is the primary determinant of whether the student is interested and involved in learning." (Emery, F, 1979, p 45)

The literature points to social disadvantage as a well-defined syndrome of socio-economic-emotional factors, one of which is the desire and ability to learn. It is a syndrome which is perhaps more accurately described as a social-motivational cycle, as organized institutional barriers successively react with decreasing levels of motivation to break the cycle. This is by now a familiar story and needs little elaboration. It should, however, be kept firmly in mind, particularly at a time when "youth employment prospects have deteriorated very severely compared with adult in the past seven years, especially since June Quarter 1974". (Blandy, 1979, p 22) In 1984 there is little hope for a return to full employment.

There is also a correlation between family affairs and the general economic affairs of the nation which has recently been elucidated by Windschuttle (1979). He has shown that not only are the traditional indices of the health of the family, such as marriage, divorce and birth rates, tied to the economy; so also are the central features of stable relationships, protection and support.

In another survey of the unemployment literature, Marie Jahoda (1979) discusses the possibilities that "the terrible human damage" (p 314) done to the unemployed individual may in this depression be mitigated by social values and institutional structures which have been radically changed since the 1930s. She quotes some evidence for the growth of an "informal economy" but appears not optimistic that the extent of this phenomenon is sufficient.

We are left looking then at a situation where the rate of unemployment, particularly youth unemployment, is going to remain high as was forecast by the Melbourne Institute for Applied Social and Economic Research in August, 1979, and where also the unemployed person is likely to be without adequate institutional, or interpersonal support, in an environment, some sectors of which are hostile. (See particularly Windschuttle, p 70 and 86) This hostility may have mitigated somewhat as unemployment has bitten into the heartland of middle-aged, skilled breadwinners.

Jahoda concludes from both the 1930s and the 1970s evidence that she doubts "that the individual solutions are possible for them", the current unemployed, any more than they were for the unemployed of the 30s. The results are likely to be the same -- "resignation, (and apathy), as the major response" . . . "being unemployed is something very different from having leisure time. The unemployed decreased their attendance of clubs and voluntary organizations, their use of the free library, their reading habits. Their sense of time disintegrated (see also Windschuttle, 1979, p 115); having nothing to do meant they became less able to be punctual for meals and other arrangements. Budgeting, so much more necessary than before, was progressively abandoned. While family relations continued in

established patterns longer than other relations and activities, there was some evidence that they, too, deteriorated and family quarrels increased". (p 309) They are also more likely to fall ill (Miles, 1983) and mentally ill, with a majority of cases classified as depression (Finlay-Jones & Eckhard, 1980).

All studies, including Windschuttle in Australia, have documented demoralization, social isolation, loss of self-respect and esteem; unemployment is clearly a recipe for dissociation. As hypothesized by Emery & Emery in 1975, television will now be shown by hard data also to be a recipe for dissociation. Unemployment and TV make an unholy marriage.

Socio-economic disadvantage and the quality of human associating has also been an area of intensive study. Researchers always return from the ghettos and the slums of western society with the same answer. A perusal of the five-volume report of the Commission into Human Relationships in Australia attests to the fact that the problems are still with us; child-abuse and neglect is just one case in point. These statistics are pictures of a vicious life-cycle into which the innocent and the young are drawn, and which, by its very effects, makes them captive to the nature of the cycle. "Research shows that the lack of verbal and emotional communication between husband and wife is carried over to their relations with their children. Minuchin reports that these communication patterns cause severe delay in child development and related difficulties. The child is handicapped in language, and verbal and perceptual skills in school . . . The absence of verbal interaction inhibits general development." (Greenberg & Dervin, p 93, Sprigle, 1971)

Add to this picture the fact that no matter how poor the family, the technology they are most likely to own is a TV set. This raises another important dimension, that of parental control over children's viewing habits. If there was debate between parents and children about when, how much, and what to watch, this could serve as a powerful starting point for learning. Unfortunately, Australian research (Senate 1978, p 23-27) has reached the same conclusions as overseas studies: "Parental control of TV viewing is largely a myth." (Greenberg & Dervin, p 106) The ABT confirmed in 1982 that most fourth grade children pick their own programs between at least 4-5 p.m. and 95% watched without an adult (Marzorini, et al 1982). "The one factor that stands out most consistently is that of laxity of family control around the TV set" (Singer & Singer, 1980 p 60). And less control is attempted as the socio-economic status of the household drops (Greenberg & Dervin, as above). Every day approximately two million children are watching TV between 11.30 p.m. and 1.30 a.m. (Mankiewicz, cited by Postman, 1983) and these are more likely to be disadvantaged.

Environmental and interpersonal transactions are the basis of adaptation. We have seen that television reduces these propensities both in extent and quality. We would expect, therefore, that the literature documents substantive differences between heavy and light viewers, and elucidates the nature and interrelation of the various dimensions involved in heavy viewing. Such a more global perspective should also, therefore, provide another check on our conclusions to date concerning the importance of individual variables.

2. The Demographic Characteristics of Heavy Viewers

The following Australian data is that collected by The Roy Morgan Research Centre, Pty Ltd, North Sydney, October 1976 to March 1977.

The Morgan data suffers in that it is an index of commercial TV viewing only and must, therefore, be something of an under-estimate. The population sampled is that aged 14 years plus.*

Heavy Viewer here means someone who watched 21+ hours in the last seven days. Non-viewer means somebody who watched no television in the last seven days. The distribution across the Australian population is shown in Table 10.1.

Table 10.1

The Distribution of Viewing habits for Australia, 1977

Heavy Viewing	25.0%	
		High 49.9%
Medium Viewing	24.9%	
Light Viewing	37.4%	
		Low 50.2%
No Viewing	12.8%	
	100.1	

It is possible, from the Morgan data, to give a profile of the Australian heavy and non-viewer. In constructing this profile, I have taken only those categories which give a figure for heavy- and non-viewing which differs from the Australian average by at least 20%.

* Data by courtesy of Telecom Australia.

The Heavy Viewer: Total Population

is more likely to:

- live in a NSW country area
- be aged 14 - 17 years
- be unemployed
- be a semi/unskilled worker
- live in a household where the head earns less than $6,000 a year
- have only some secondary education
- be a grocery buyer, aged 14 - 34 who has children

The Non-Viewer: Total Population

is more likely to:

- live in a country area, particularly Queensland, SA and WA country, or generally in WA
- be aged 50 years and over
- not own a TV set
- be a professional, a manager or a farm owner
- work for the government public service, or be self-employed
- have a personal income of $10,000 and over
- live in a household where the head earns $15,000 and over
- have matriculation, tertiary education, and particularly university education
- be a grocery buyer, aged 14 years plus, with no children
- be experienced in overseas air travel
- drink cider, both alcoholic and non-alcoholic, fortified wines and still table wines.

Unfortunately there is no way that we can interrelate these variables in this data. However, the profiles do make clear the fact that the extent of television viewing is very much a part of a socio-economic syndrome. It can be summed up by saying that the 'have-nots' view more and the 'haves' view less. The opposite was found by Jackson, Beeck and Robinson (1981) but they do confirm that non-viewers are more active. This profile of the non-viewer is, therefore, only suggestive, as non-viewing has proven difficult in general to conceptualize. A review of the literature by Tankard & Harris (1980) uncovered many discrepancies. They concluded that what non-viewers have in common is a negative attitude toward television and that greater emphasis on psychological and lifestyle variables may be required. The section below on 'Television and Personality' may be a step towards such a clarification.

Figure 10.1 Viewing by Educational Achievement

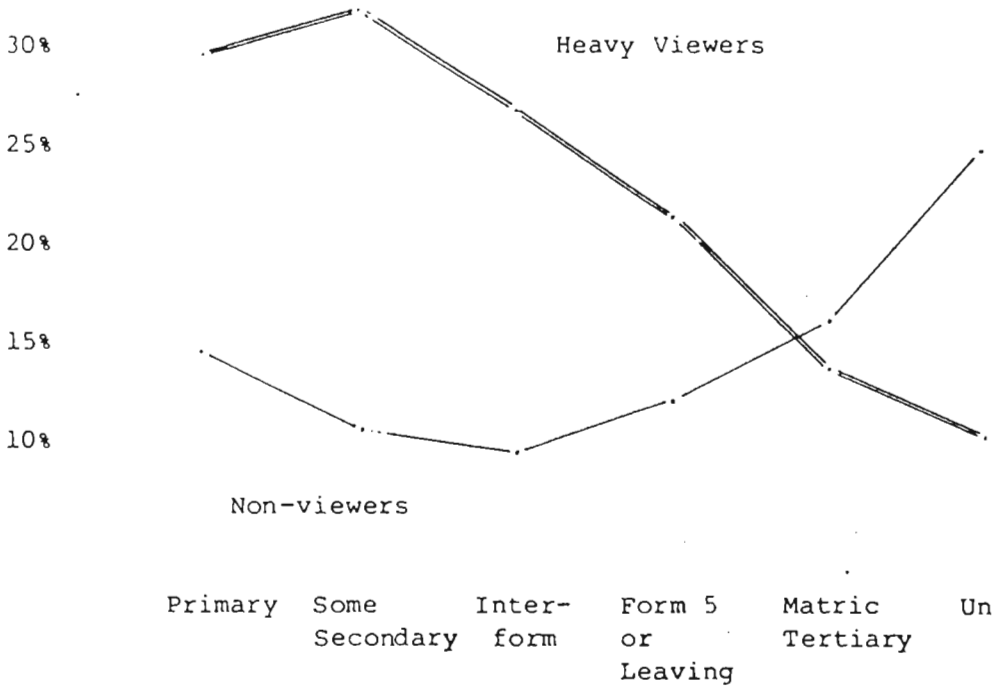
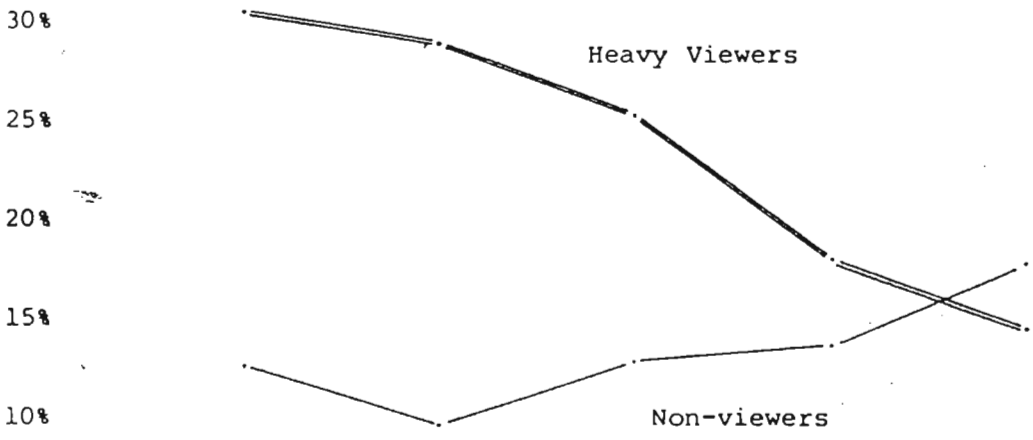


Figure 10.2 Viewing by Income of Household Head



Figures 10.1 and 10.2 show that the disadvantaged, in terms of education and income of household head, watch significantly more television than d the advantaged. The figures for personal income do not differ significantly from those for income of household head. What is also clear is that the difference in viewing habits is much stronger at the disadvantage end of the scale, particularly that relating to income. That is, as income drops, an increasing proportion of heavy viewers will result. This adult data parallels that reported for children. (Senate, as above, p 21)

This Australian data matches similar studies in the USA. Greenberg and Dervin (1970) have collated the results of several such research projects. They state "Typical findings of these studies are: the poor use more television and are more favourable to it; they use less print media; and they tend to use more radio." (p 4) Their profile of a 'typical low-income media user': "one-third of his working day (is spent) on television in particular and the electronic media in general . . . He not only uses TV a great deal, he prefers it as a source for his news and believes it more." (p 26) "If conflicting stories were received, the majority in each of the three groups (see below) would believe the TV version." (p 42) Also, if allowed only one medium, from two-thirds to three-quarters would keep the TV. Agardy, et al (1978) found that better educated and light viewers tended to say that the news was sometimes inaccurate (p 26) and that those who view the news on the commercial channels exclusively, were less educated, heavier viewers and less critical or demanding (p 30).

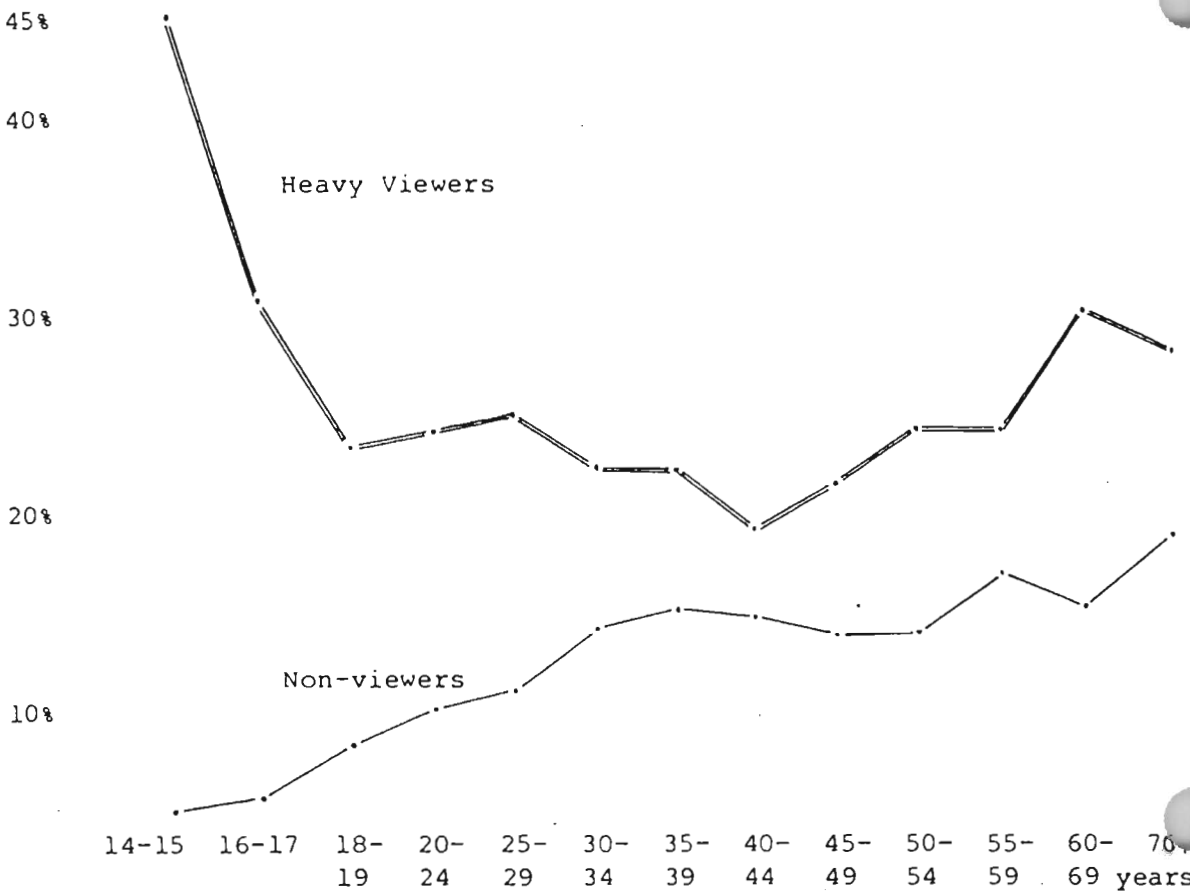
The American data found that for the disadvantaged groups studied, TV is seen as the critical link to the perceived world of the 'haves'. Yet

other studies have shown that far from reflecting accurately the society, television distorts its contents away from the real world. (Court, 1975, 1980) Gerbner et al, Greenberg & Dervin concluded that "media content does little to break down and may in fact encourage, the isolation of the poor and ghetto black from the majority society." (p 117)

Figure 10.3 presents the distribution of viewing by age. This picture is a little different to those above, as the percentage in age groups over 44 years, who are heavy viewers, rises rather than continues to fall, so that we have here a bi-modal graph of heavy viewing. We have in the age group 29 to 44 the maximum point of activity in the life-cycle; working, 'bringing up the kids', and being active in the affairs of the community generally. That is the stage of life where the two graphs converge. Both graphs show an upward curve after this point, but it is stronger for the heavy viewers. The most direct explanation for this distribution is that television viewing is inversely related to other forms of activity. This is the substitution phenomenon.

The most striking feature of Figure 10.3 is the proportion of teenagers who are heavy viewers. No other single category comes close to this figure of 45% for our 14 - 15 year olds. Heavy viewing for this age group is 180% up on the national figure. Nor is this group listening much to radio. Only 11.6% of the 14 - 15 year olds are heavy listeners, compared with 19% for the Australian population. We do not have data which relates age to magazine, book or newspaper reading, which could possibly be relieving such a heavy reliance on TV, and perhaps this heavy diet is balanced by talking to friends. However, as studies continue to show, many of our children are watching more than 40 hours per week; this would not leave them much time for such activities.

Figure 10.3 Viewing by Age



From Morgan's 1977 data we can also investigate viewing patterns by sex and socio-economic status. Table 10.2 shows that men and women do not differ in the proportions who are heavy and non-viewers (X^2 = 2.28, n.s.)

Table 10.2

Percentages of Men and Women who are Heavy Viewers

	Men	Women	
Heavy Viewers	21.8%	28.2%	X^2 = 2.28, n.s.
Non-Viewers	13.4	12.1	

(N=301)

Table 10.3

Heavy Viewing by Sex, Age and Class

Male				Female			
16 - 35		36+		16 - 35		36+	
w.c.	m.c.	w.c.	m.c.	w.c.	m.c.	w.c.	m.c.
13	17	17	12	10	0	15	15

Table 10.4

Joint Contribution of Sex and Age to Heavy Viewing

	Age	
	16 - 35	36 + years
Male	30	29
Female	10	30

Table 10.3 shows the pattern for heavy viewers who were estimated to be 27% of the national population in 1979 (Emery & Emery, 1980, p 11-8).

None of the three variables differ from expected level of contribution but there is almost a joint effect for sex and age. (Table 10.4, X^2 = 3.7, n.s.)

From Figure 10.4 it can be seen that heavy viewing is much more strongly related to income, although inversely, than is non-viewing. Presumably other factors of personality and attitude affect the decision to be a non-viewer. Sex however has no influence on either heavy viewing or non-viewing. The critical variable is income (Table 10.5).

Figure 10.4 Heavy and Non-viewing by Sex and Personal Income

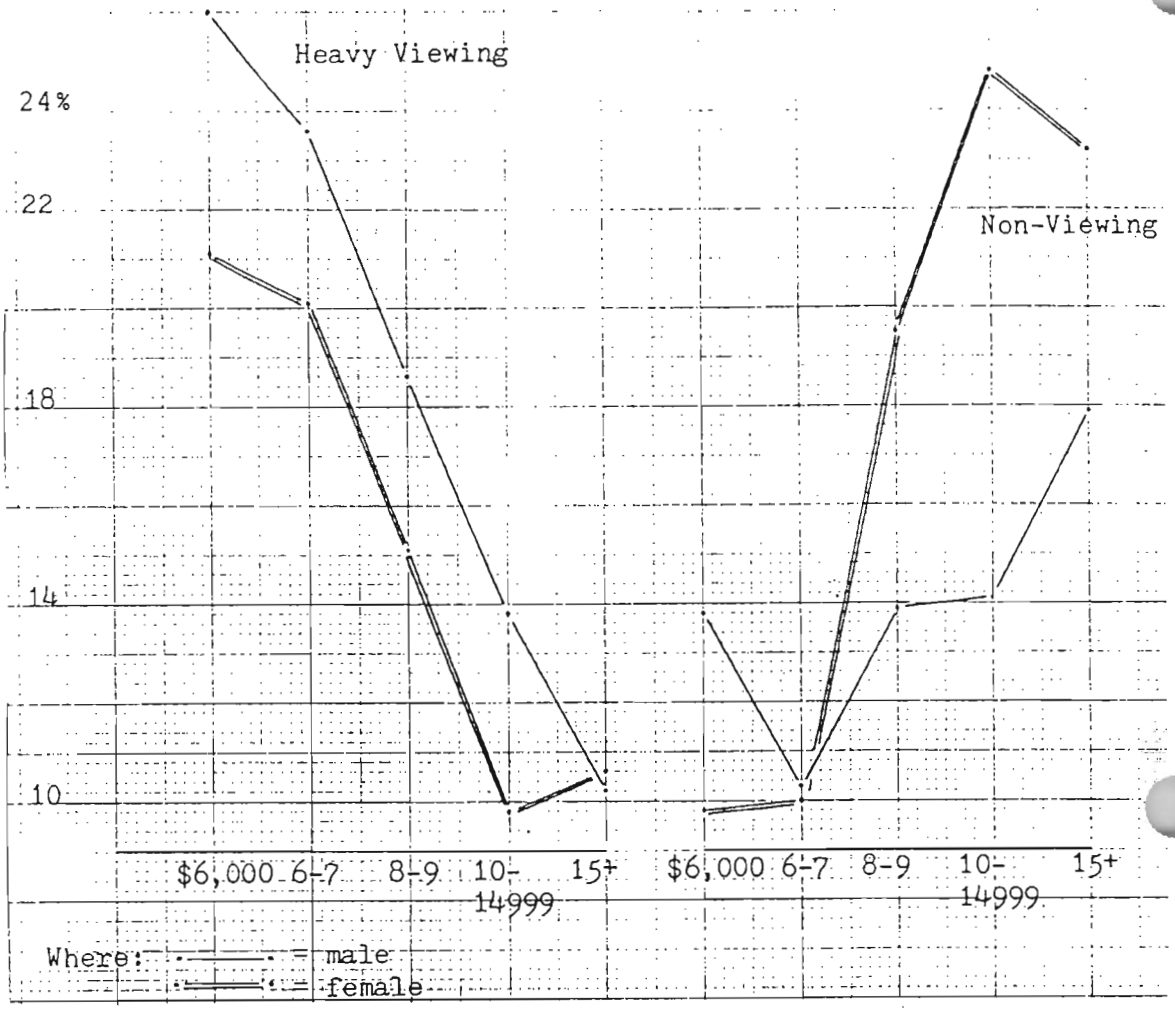


Table 10.5

Heavy & Non-Viewing by Sex & Personal Income

	Male		Female	
	Less Than $8,000 p.a.	More Than 8,000 p.a.	Less Than $8,000 p.a.	More Than 8,000 p.a.
Heavy	49.6	42.6	41.2	35.5
Non-Viewing	24.1	45.9	19.8	67.5
		(N=118)		(N=128)

For men, increasing income means less heavy viewing and more non-viewing ($X^2 = 3.94$, $p<.05$). For women, the relation is stronger ($X^2 = 10.09$, $p<.01$) with a dramatic shift towards no viewing at all. Higher rates of personal income increase choice with a subsequent rise in quality of life.

Table 10.6

Heavy and Non Viewing by
Sex & Full-time Occupation (Percents)

	Male				Female			
	White Collar		Blue		White Collar		Blue	
	Prof. Mgr.	Clerical	Skilled	Semi+ Unsk.	Prof. Mgr.	Clerical	Skilled	Semi+ Unsk.
Heavy	8.8	15.1	20.9	25.8	9.4	16.4	8.1	24.6
Non-Viewers	20.9	11.9	12.7	11.1	32.3	13.7	21.3	12.5
				(N=87)				(N=105)

Table 10.6 shows the influence of skilled work on viewing habits. The relationship is stronger for women than for men. As women move from clerical to professional and managerial categories, the proportion of heavy viewers decreases and non-viewing increases ($X^2 = 5.14$, $p<.05$). This does not significantly hold for men ($X^2 = 3.41$, n.s.). Similarly for women in the blue collar area, skilled rather than semi-or unskilled work accounts for less heavy viewing and more non-viewing ($X^2 = 7.07$, $p < .01$) but for men the relation is not significant. It is perhaps in the skilled trades sector that most sex differences in viewing appear ($X^2 = 3.46$, n.s.). For women, and to a lesser extent for men, the exercise of a skill in a challenging job may diminish the need for or attraction of television. A larger sample is needed.

Table 10.7

Heavy & Non-Viewing by Job Intensity

	Male		Female	
	Full Time	Part Time	Full Time	Part Time
Heavy	18.4	21.7	17.4	21.5
Non-Viewing	13.7	11.7	14.7	11.6

Table 10.7 confirms that it is quality of work rather than time spent at work which affects viewing time. Neither for males nor females is there a difference between part-time or full-time employment. The stereotypical heavy viewing housewife is responding therefore not to

having time on her hands, but to the mind deadening character of the activities she must pursue.

Throughout this analysis we see that the key dimension determining television viewing is quality of life, at work and at home. Socio-economic status is a fairly reliable, but not certain indicator of such quality, but it is definitely more an indicator than a determinant. Underlying such indices is the human dignity and respect found in the association provided by quality relationships and productive activity. Emery & Phillips (1976) have documented the systemic nature of this complex configuration in Australia and the dissociation, disadvantage cycle initiated by its lack. Their data is by no means unique -- it confirms years of international study concerned to develop collaborative understandings of democratization and climbing out of disadvantage traps.

3. Other Correlates of Heavy Viewing

There is American data which relates age, socio-economic status and the popularity of TV (Table 10.8). We have no reason to assume that the picture that emerges from this data will vary in essential features from Australian research, particularly as Edgar and Callus (1979) have confirmed that there is, in Australia, a relation between low self-esteem and heavy viewing.

Significant differences were found between low and middle income groups on all items and significant differences between low-income blacks and whites on the last two items.

Table 10.8
Popularity of TV Versus Other Leisure-Time Activities among Teenagers
(from Greenberg & Dervin, 1970, Table 10, p 38)

Percent Choosing TV in preference to:	Low Income		Middle Income
	Blacks (N=84)	Whites (N=124)	Whites (N=98)
Reading a book	79	87	54
Listening to radio	45	36	43
Doing homework	45	62	57
Going out with friends	30	16	15

In a recent major review of studies of blacks' use of television Poindexter & Stroman, (1982) found that blacks are still among the heaviest consumers of TV, although there are some SES variations. But blacks are not as likely to watch news and public affairs programs and also tend to believe more in the reality of television.

Perhaps we should not be unduly surprised by the results for the first three items, but that so many teenagers preferred to watch TV rather than go out with friends is indicative of substantial dissociation. The data also confirms that it is the most disadvantaged who have the highest percentage preference for TV over social interaction. The authors of that table discuss this last item as it relates to personal isolation, the concurrence of alienation from mainstream society and the need for fantasy. Another recent American study has confirmed all of the above profile and comments particularly on the surprising relative youth of the current heavy viewers. (Jackson-Beeck & Sobal, 1980)

Jones (1981) has from many sources collated a picture of the baby-boom generation, the first TV generation and definitely a generation apart; sophisticated and worldly wise, but "oddly passive. They asked fewer questions and volunteered fewer answers." (p 144) Reared on and by fantasy, they inhabited an alternative reality which bears little

relation to that most of us live in (Gerbner et al, 1980). The visions they absorbed were unrealistic and unattainable but they were far more attractive in the main. "Little wonder that many baby-boomers had trouble fitting the chaotic events of their adolescence into an understandable context." (Jones, 1981, p 141) Ultimately they became cynics, 'grown up old' but they have never lost their craving for the fantasy world. The visitor in the U.S.A. cannot fail but be struck by the extent to which young- to middle-age American life and conversation is dominated by the popular mass fantasies of the moment. Characters in cinema, television and even comic strips assume a visibility and status which surpasses that of most public figures, with the exception of the stars themselves, and the TV anchors. Simultaneously, the visitor will notice the widespread ignorance of, and indifference to, world affairs; people and events, who are shaping American policy and behaviour, but who remain apart and remote from the all-encompassing fantasy land. "We are an insular nation, and television news coverage does little to break that insulation down." (Westin, 1982, p 53) By its adulation of personalities and spectacles, it may increase it.

Fowles (1977) maintains that the great virtue of television is that it merges fantasy and reality, objectifying the thought processes of preoperational children. Thus, she argues, children are more likely to attend, internalize, and learn the content of the medium. But the long-term consequences may be unintended. In the television age there are three stages of life, infancy, senility, and for the main part, the adult-child: "a grown-up whose intellectual and emotional capacities are unrealized and, in particular, not significantly different from those associated with children." (Postman, 1982, p 99) Postman called his

book The Disappearance of Childhood, but the disappearance of adulthood as we have known it would probably be more appropriate.

In her very fine analysis of 'The Meaning of Celebrity', a picture of contemporary U.S.A., Goldsmith (1983), describes the ways in which image has replaced reality, confounded the ability to make moral judgements with truth suspended in favour of credibility, turned celebrities, or 'personalities' whether good or evil, into instant authorities, and removed moral obligation from the exercise of power. "A society that exalts flights from reality sets a dangerous course," (p 120) but its extent reaches far beyond the traditionally disadvantaged. In a recent poll 80% of Americans admitted "that they have been deeply affected by the new mentality and feel that their own need for sensation, novelty and ego fulfillment takes precedence over the needs of all other people." (p 120) To this extent, American culture is an impoverished, disadvantaged environment.

In a witty and penetrating analysis of today's architecture, Peter Blake (1984) labels post-modernism a marketing gimmick, a realization that architecture had to face up to novelty or death. Consequently "the distinction between reality and fantasy has become blurred." (p 32) Much of our built environment ("happily") exists "only in words of absolutely mind-boggling obfuscation" (p 32) but more seriously, the profession is not attuned to the real world where the accelerating diversification of CRT technology is changing the functional face of the first and second worlds (p 38), at least. Blake believes that this"staggering communications explosion" presents both the most sobering problems and exciting opportunities for architects, but so far they have preferred to stay with the fantasy econiche.

A study by Hendry & Thornton (1976) also found that people favouring a given lifestyle will tend to prefer TV programs which include representations of that life. While this finding emphasizes the role of familiarity in televiewing, it also adds weight to the dissociating effect. Heavy viewing may also disadvantage in terms of seeing sex roles as more stereotyped. Heavy viewing girls were more prone to stereotypical response than boys and in regard to male stereotypes, became more so from grades 1 to 7. McGhee & Frueh (1980) conclude: "The child who does not view much television, on the other hand, may be more able to draw from his (her) own experience, and decide that so-called masculine traits or characteristics may actually be associated with either sex." (p 187) The heavier viewing child will perceive male and female roles as more rigid with consequent loss of potential flexibility and opportunity. Girls in particular from such a restricted environment will fail to perceive or appreciate new openings for women.

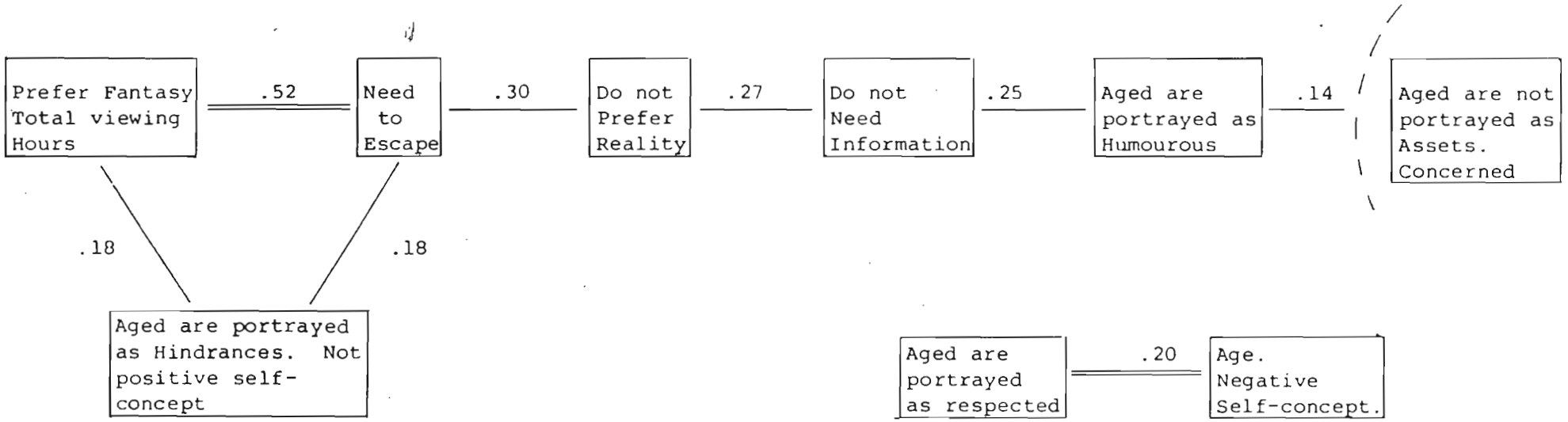
As has been noted above, portrayals of even the most disadvantaged lifestyle on television are decidedly more pleasant and attractive than the real thing -- 'Steptoe and Son' is an example where the dirt, cold and hardship is down-played in favour of the engaging, dependent love-hate relationship between father and son. Many have noted the fact that television steadfastly refuses to show consequences. If people prefer to watch lifestyles or activity patterns approximating their own they will, as Jones (1981) pointed out about the Baby Boomers, become increasingly skeptical about their Great Expectations when they are forced to confront the real world. Combining the effects of medium and content can only confound the distance between the television environment and ability to cope with the real thing.

Goldsmith's portrayal is, unfortunately, supported by hard data. In a study designed to show the relation between television viewing and the self-concept of the elderly, Korzenny & Neuendorf (1980) present a master matrix of correlations. Using the same method of re-analysis, the picture yielded is as shown in Figure 10.5.

The first thing to note is that the cluster containing age is unrelated to the core configuration and has no significant correlational links with it. The pattern therefore, is not one describing the relation between viewing and age. Secondly, the link between 'the aged as assets and being a concerned person' and the rest is also below significance and does not belong in the picture. Excluding these clusters then, we find a pattern describing the world of heavy television viewing. There is little need to assign arrows of causality here as the previous evidence has shown that television plays a role in shaping needs, self-concept and preferences. Needs and preferences do not merely lead to light or heavy viewing. The massive project of the Annenberg School definitively confirms this interpretation. Thus, while the elderly are certainly disadvantaged in many ways in our baby-boom oriented cultures, the pattern in Figure 10.5 tells us that television is implicated in a disadvantaged constellation of dissociative factors, regardless of the age of the victim.

This data is American but Australia was one of the three other countries to have a baby-boom (Jones, 1981, p 23); our subsequent generations are also television children. But in general, the Australian people do seem more alerted to the effects of television, certainly in the terms of the thesis proposed here.

Figure 10.5. Television and Irreality. (from Korzenny & Neuendorf, 1980, Table 5, p 77)



> "Expanded television services were seen to have mainly deleterious effects on society. Increased viewing because of the availability of more television and because people would want to justify the money they had spent was feared to turn people into anti-social 'zombies'. Interactive services were seen to aggravate this tendency in that they would isolate individuals and keep them away from desirable social contact, such as occurs in shopping." (Agardy & Burke, 1982, p 8)

"Television was seen as becoming a monster" (as above, p 25). But it was acknowledged as relaxing, good for unwinding from tensions, and "for falling asleep". (p 14) Generally, the content, including news, was viewed unfavourably.

> "Movies and serials, particularly from the U.S., were thought to show unreal, stereotyped lifestyles, and 'beautiful people' only. These programs, and the news and current affairs programs, were perceived as relying too much on conflict and strife, and on showing the negative aspects of life." (as above, p 16).

Despite such aware and negative opinions, however, it is doubtful if they translate into significantly shorter viewing hours. This effect appears to depend more heavily, as we have seen, on quality of life rather than attitude. The cynicism noted elsewhere was also found in this study. Participants, while expressing concern about the destructive effects of TV, also expected that inevitably the introduction of new services would proceed, regardless.

In fact, a large (N = 1519) American study (Robinson, 1981) has shown that television viewing increased significantly between 1965 and 1975, despite the fact that respondents did not particularly like it as an activity. It was rated well below the scores of almost all other free-time activities, including newspaper reading, the free time activity which showed the greatest decline over the period. For women it was liked about as much as housework and for both sexes it was liked well below work (paid employment). Yet viewing hours overall rose from 1.5 to

2.2 hours as primary activity and television also accounted for most of the 57 minute increase in free time between 1965-75. Secondary viewi remained at 0.6 hours. Despite expectations that the cultural revolution of the late sixties would enrich cultural lives and that with more free time people would find their leisure lives more satisfying, the only other significant increases in activity, apart form watching TV, were sleeping and personal care. These three at-home activities substantially replaced away-from-home activities, including social visiting, travel and religion. The study method of 'yesterday diaries' is by far the most reliable and it would therefore appear that television once again has been proven boring, dissociative and addictive.

Robinson's study shows that people do have other choices than televiewing and used to do more of them. It is difficult then to accept that "the reason people watch so much is that they have so much time to kil (Barwise et al, 1982, p 28) This is too superficial; the reason they have time to 'kill' is that they have given away many of the multifarious range of previous associative leisure pursuits. Barwise, et al, also quote evidence that people tend to say they enjoy almost all other leisure activities more (p 28) but they conclude that this doesn't mean they are 'glued to the box'. Their study is a replication of that which gave us 'the 55% rule' -- the repeat viewing level of successive episodes of regular programs. U.S. rather than U.K. levels appear to run at about 50% with heavy viewers being somewhat more regular (60%) and light viewers less regular (25%). This implies, as the authors conclude, that light viewers are not 'selective'; they generally do not pick out a few 'good' programs and stick to them. Barwise et al conclude t television is consumed as a medium (quoted from Comstock, 1980); decision-making about viewing is largely passive and program choice is

not exactly active either. Apart from day-time soap operas it would appear that 'once on -- stays on' is the basic rule with any further choices biased in favour of avoiding intellectually or emotionally demanding programs, and choosing familiar rather than unfamiliar. These studies taken together suggest a decrease in energy and level of purposeful behaviour.

4. Heavy Viewing and Psychological Stress

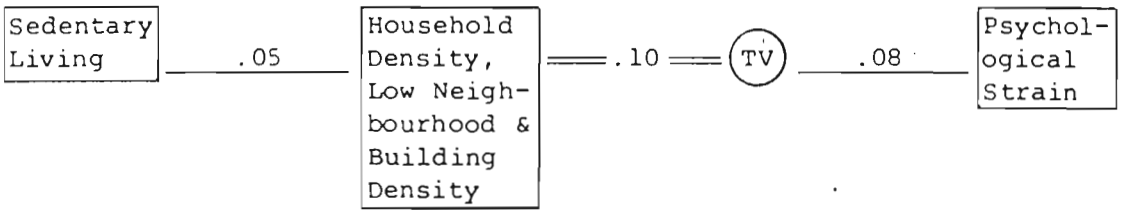
Emery & Emery (1976) devoted their chapter 10 to an exploration of the long-term effects of viewing in terms of mental health. Arguing logically from the hypothesized neurophysiological effect of television, they expected and found a set of correspondences within the psychological literature which tended to support their theoretical extensions that television would have systemic pathological effects. Since that time anxiety and stress have been associated with preference for television and heavy viewing (Fowles, 1982) and we have already noted Australian studies linking heavy viewing to low self-esteem. There is other direct evidence of such a relationship.

In a study of the difference in life patterns of well and badly adjusted boys, only three dimensions distinguished them; television viewing, the nature of other recreation, and social contact. Badly adjusted boys watched more television as did their mothers and fathers, and the well adjusted, plus their mothers and fathers, spent larger periods in interpersonally demanding forms of recreation, and in direct social and community ictivities. "Results . . . suggest that individual behaviour is predictable on the basis of the family unit's interaction with its environment. Aspects of behaviour, which have in the past been considered personality variables do relate to intrafamilial differences

in interaction patterns and to how all family members make use of their environment." (Hume et al, 1977, p 354)

A further small piece of evidence concerning television's maladaptive effects comes from Gillis (1979). Re-analyzing his correlation matrix (p 271) we find the following pattern (Figure 10.6)

Figure 10.6 Relation of Television to Crowding



Where: Sedentary Living is variables 4,5 & 6;
Density is 1, with 2 and 3 reversed

Gillis' factor analysis showed that "people tend to watch TV more often in high household density environments, and when they do are less likely to experience psychological strain". (p 273) The causal path analysis presented here however, shows that certainly TV and high density household are closely related, but that TV is contributing to the measure of strain. His supportive data from the literature also better fits the re-analysis. Rather than interpret the intensification of family interaction and social stimulation that follows abstaining from television as the consequences of crowding, it is, as seen above, a measure of adjustment or adaptation. Similarly, the data he has accumulated on the withdrawal symptoms confirms TV as an addiction, a dependence. (p 273). The fact that withdrawal is less pleasant than continuing with the addiction does not turn the drug into a social virtue. Certainly "TV watching removed attention from people's immediate environment" (p 273) and may "permit people to inhabit what otherwise would be hostile social and physical environments" (p 275) but his own

research illustrates the danger of substituting the television environment for the real one.

In a deprivation study Tan (1977) found firstly that only 6.3% of those going without TV for a week said they didn't miss it and 10% resorted to watching it at a friend's place. While the usage of all other media and family and social activities all roughly doubled in time during the week of deprivation, only 8% said they would be willing to give up television and some reported that they had become 'disoriented' without it. As the data indicated that it was missed primarily for entertainment rather than for informational reasons, we must conclude that this disorientation was some personal form of withdrawal or distress reaction. As these were a sample of quite ordinary households, neither without education nor jobs, and it is most unlikely that such a sample could accidentally have tapped a particularly anxious or depressed section of the community, we must on the basis of this, and previous evidence, conclude that televiewing, per se, is having an effect on psychological adaptation.

5. Television and Reading: The Emergence of Two Cultures?

In a detailed study of American reading habits between 1946 and 1977, Robinson (1980) found reading to be a less prominent feature of daily life for all ages. The decline in newspaper readership was evident in the 1950s, but a further drop of ten percent occurred between 1967 and 1977, and an additional decrease of six percent between 1977 and 1978 shows a rapid deceleration. Predictably, given their television habits, the baby-boom cohorts show the greatest decline with 1977 readership levels 12-28 percentage points lower than any other cohort. (p 144) But these boomers have increased their daily exposure to books and magazines since 1957 (p 146), particularly specialty, trade and professional

magazines, not general news magazines. More generally, fewer people are reading newspapers and those who do, spend less time on it. The opposite holds for books and magazines. Correlations between TV and reading were generally small and inconsistent but again the baby-boom generation stood out with a negative relationship between newspaper reading and free time.

Morgan (1980) in a longitudinal study of 625 sixth to ninth grade students in new Jersey found a complex pattern of interrelations between reading, viewing, achievement and IQ. Television was negatively correlated with IQ and all achievement test scores. When IQ was controlled, TV is still negatively correlated with reading comprehension. But those who were consistently heavy viewers over the three years ended up reading more while light viewers read less. Amount of viewing appeared to influence time spent reading, but there was no evidence of the reverse. To explain this pattern, Morgan suggests firstly that heavy viewers may actually be reading while watching TV, as this appears to be how they do their homework. Secondly, from their preferences, stories about love and families, stars, etc., he suggests the reading content consumed by heavy viewers may reflect television programming. Thus, reading frequency or time becomes an inadequate measure. "Heavy viewers may end up reading more -- but they certainly seem to be comprehending less." (p 165)

Such conflicting reports about the impact of television on reading time, or number of books read, lead Neuman (1982) to look below the surface of absolute reading quantity to the quality of leisure reading choices. She found that students who were heavy TV viewers and light readers chose books of a significantly lower quality than the other three groups in the

sample. More mature readers tended to be proficient readers, and female. High levels of both TV and reading did not lead to lower quality.

These results have a bearing on theories of television-based reading instruction as does the thesis here generally of the difference between recognition and recall. Szabo & Lamiell-Landy (1981) showed reading achievement increased when the material used was television-based, for example, on scripts of 'Mork & Mindy'. Apart from the fact that such reading is not conceptually demanding, the authors also note that "the instructional materials placed greater emphasis on simpler processes, such as recall and recognition, than on complex processes, such as translation or analysis . . . Vocabulary skills emphasized were word recognition and context clues. Comprehension skills most often required were skimming for facts and details. Drawing inferences and generalizing or classifying were not often needed." (p 242) In other words, only the lowest levels of concretization were tapped. In addition, the teachers chose simple rather than more complex exercises from those available. It would seem therefore that to claim that such a demonstration is evidence of improved reading skills could be somewhat misleading. The critical differences between skimming and reading, familiarity and understanding, were <u>not</u> demonstrated.

Another approach has recently been devised. Called 'Reading Rainbow' it aims to pick up where 'Sesame Street' left off (Goldman, 1983). After watching the show, which features story-telling, something 'Sesame Street' producers threw out because it was not an attention-grabber, children are supposed to turn the set off and get the book. This new concept has pros and cons. It is obviously going to be slowly paced and will not therefore compete well for children's attention. Its big plus

is that it does have a specific product to recognize and buy -- the book. If children do find the program attractive, it may well result in t sale of more books as has happened with 'The Thornbirds' and numerous other series. Resulting gains will come not from viewing the program per se, but because the 'view-recognize and (hopefully) read', formula is in-built.

Neuman's findings "present an important challenge to parents and educators alike" (Neuman, 1982, p 303). The same challenge is extended by Himmelweit & Swift (1976) who found consistently different patterns of attitudes and media behaviour between reading and watching television. Their evidence suggested a critical period in adolescence for attraction to, or learning about leisure pursuits which are more demanding or varied than the normative, age-culture preferences of peers. Irrespective of subsequent educational attainment and occupational status, these tastes have continuity over time (p 155). In many cases, adolescent tastes were by far the strongest predictor of adult behaviour. In particular they found television "was consumed rather than actively enjoyed. Reading, offering more choice, had a higher prestige and was enjoyed much more. . . Those bored by reading spent more time viewing than those who enjoyed books, but they enjoyed TV no more". (p 153) There was a "heavy bunching of lukewarm reactions to television." (p 141) There was also evidence that "television alone among the major leisure activities evoked guilt," (p 142) which has been confirmed cross culturally. (p 153) McIlwraith, quoted by Singer et al, (1982) also found that the heaviest consumers of TV scored highly on a Guilty-Dysphoric dimension of inner life. Himmelweit & Swift's suggestion that such guilt springs from a feeling o having succumbed too easily to "television's attractions" is reminiscent of its description as consumatory, rewarding but purposeless (Emery &

Emery, 1976). Indeed, 'passivity' and 'vacuum' are specifically mentioned by Himmelweit & Swift in relation to TV viewing. Reading on the other hand was associated with active pursuit of cultural interests and hobbies within the middle class sample, and was a special activity for those of the working class with free leisure time. Thus while television is relaxing and rewarding at one level, there are indications of its negative consequences on the contents of consciousness. There appears to be no such data associated with reading.

Reading frequency was investigated in the 1979 Telecom study and women comprised a larger proportion of heavy readers (X^2 =6.12, $p<.02$) (see Table 10.9)

Table 10.9

Heavy Readers and Heavy Viewers by Sex
(from Emery & Emery 1980, Table 56, p 11-8)

	Male	Female	
Heavy Reading	39	61	100%
Heavy Viewing	59	40	99%
		(N=256)	

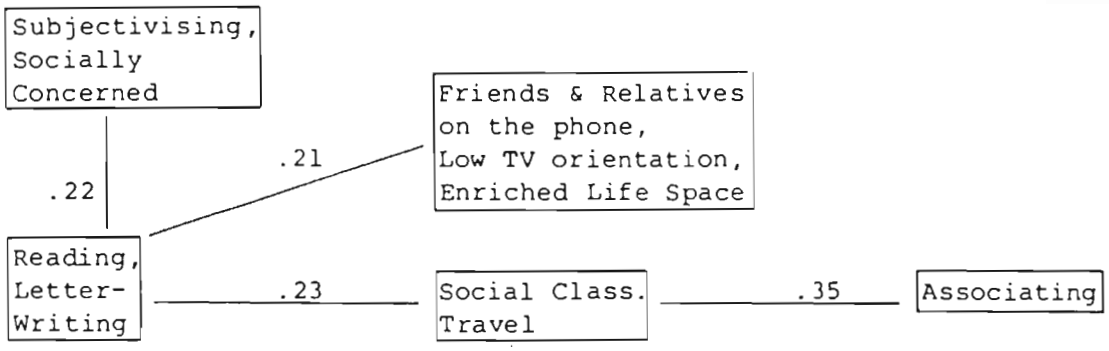
Here again heavy reading and heavy viewing are significantly affected by gender (X^2 = 11.4, $p < .001$)

The overall configuration for reading is shown in Figure 10.7.

Reading and letter-writing are obviously factors in an advantaged and active lifestyle in which television is not significant. Associating is a cluster of variables, such as networking, joining clubs and associations, and frequency of telephone calls. There are further links to externalizing, acting out upon the environment. The graph for heavy

Figure 10.7

The Correlates of Reading
(abridged from Emery & Emery, 1980, Figure 31, p 11-4)



viewing presented later is almost diametrically opposed to that for reading. Hirschman (1981) found 'unexpectedly' that magazine usage in childhood was related to adult occupational status/complexity, a good index of challenge, quality of life at work, and association. The 1977 Australian data however also contained information about the use of monthly and weekly magazines, and newspapers, rather than simple frequency of reading. I have analysed this information for the tot Australian population using the percentages for Heavy Viewers as a base. The average percentage score for Heavy Viewers across all papers and magazines tested was 24.4%. Around this mean score I have constructed groups, each with a range of eight percentage points. This gives a distribution as follows:

Category	Example	No. in each Category
5	National Times	2
4	Time	10
3	Cleo	12
2	Women's Weekly	14
1	Observer TV	1

At the top end of the scale are the National Times and Nation Review which are relatively demanding of their readers. As we move down the scale, the form becomes more visual and greater content is given over to personalities and trivia. At the far end, both form and content are

strongly influenced by television and have been described by the Financial Review as "published television". (28th August, 1979)

Table 10.10 gives the distribution of reading quality by viewing habit.

Table 10.10

Magazine & Newspaper Reading by TV Viewing
(Average Percentage in Each Category that fell into Heavy and Non-Viewing)
Level of Magazine or Paper Read

TV Viewing	Light, Imagery 1	2	3	4	Heavy, Conceptual 5	
Heavy	41.0	32.6	25.1	14.3	5.6	X^2 =78.26 d.f. = 4
Non-Viewers	6.0	8.1	10.3	16.0	26.6	p < .001 (N=301)

The reading habits of heavy and non-viewers are entirely different (X^2 =78.26, d.f. = 4, p < .001). The TV generated 'personalities' and 'news' are very much the province of the heavy viewer, while the non-viewer reads something more literate and effortful. It would be difficult for these heavy viewers to avoid all news or current affairs programs, certainly some of the latter on the commercial channels have high ratings. But little of this is reflected in their reading. This Australian data supports Neuman's conclusions and contradicts the opinion that watching television stimulates interest in the world around. It appears to stimulate interest in reading only about its self-generated world. Heavy and non-viewers appear in fact, to be inhabiting quite separate universes. There was no sex difference.

Also supportive of these conclusions is evidence relating to how heavy viewers read their hard copy. "He (the disadvantaged, heavy viewing American) reads the newspaper less frequently and when he does read it,

he reads it less intensively (focusing on the 'headlines' and ads)" (Greenberg & Dervin, p 79).

Overall the literature provides a coherent picture of the gap between reading and watching television. This analysis applies to children as well as adults.

Singer et al found heavy TV viewing to be associated with reading losses in the middle class but with reading gains in poorer children (1982). Here however, we are not given sufficient information to assess losses and gains against base line data. Nor are we given a correlation matrix from which we can derive the overall configuration of interdependencies in their data. They do note however that "there seems to be a critical stage at which heavy exposure to TV damages a middle class child's chances of attaining a high reading level." (1982, reading score analysis, p 2, my emphasis) Gunter (1982) also suggests "acute and long-lasting consequences" of viewing rather than reading in the early school years, (p 232) and stresses as does the Singer team the centrality of active imaginative mental processes for advanced intellectual growth. (p 234)

The disadvantaged suffer learning deficits in communication on both the oral and literate planes. And these are not unrelated. During the process of learning to read, "the pupil must constantly check his result against his experience of spoken language". (Söderbergh, 1975, p 156). If each is reduced, then the learning deficit must be the result of a multiplicative rather than additive function. Such an accelerating substitution effect can only add to the destructive effects of ETV, the anti-democratic consequences of TV news and documentaries, and the

non-analytic approach to advertising and purchasing. It is therefore perhaps not too surprising that the functional illiteracy rate in the state of Pennsylvania is 29%; for the city of Philadelphia, 39% (news item on KYW radio, January, 1984). Jacoby & Hoyer (1982 (b) p 38) cite a previous finding for the U.S.A. as a whole, of 33%.

Krugman (1977) speculated that we may be splitting into two cultures, a left-brain print oriented and a right-brain electronic oriented. Such separate orientations have been found (Hornik and Schlinger, 1981, p 348) confirming many of the differences noted above. In a study designed to specifically test the two cultures hypothesis, Crask & Reynolds (1980) conclude that we are not splitting apart along these lines. Table 10.11 summarizes their key data.

This presents a highly coherent pattern of differences between the "self-confident, involved, change-oriented moderns" (HIPRNT) and the "uninvolved, change-resistant traditionalists" (Crask & Reynolds, 1980, p 50). Not only is it highly consistent with the material reviewed above, it is almost identical with the profiles produced by Hornik & Schlinger, 1981. (Table 10.12.)

Why then did Crask & Reynolds reject the notion of a cultural split? Firstly because there are conflicting demographic trends which suggest to them that the HITV culture will shrink. However, as Robinson has pointed out (1981) this has long been an unmet expectation. Secondly, only 41% of the items distinguished the print and electronic orientations. This suggests a substantial degree of residual commonality, but all cultures necessarily share in a loosely overlapping, common core of attitudes and values. Complete separation, and certainly not total opposition, is

Table 10.11

The Evidence for two Cultures: Hard Copy (Print) & Electronic
(from Crask & Reynolds, Tables 1 and 2 and text*)

	HIPRNT	LOBOTH	HIBOTH	HITV
A. Demographic				
Some College Education	60%	54%	46%	35%
Employed	63	52	43	36
Work Demands	high	high	low	low
Income at least $15,000	63	55	49	39
Financial Security**	+	0	0	-
Pro-business attitude**	+	0	0	-
B. Socio-Cultural				
Enjoys reading	+	0	0	-
Fine Arts Activities	+	0	0	-
Community Involvement	+	0	0	-
Foreign Travel Oriented	+	0	0	-
Vacationing & travelling	+	0	0	-
Sport	jogging, hiking, swimming	-	golf	bowling golf
Diet conscious	+	0	0	-
Non-traditional family**	+	0	0	-
C. Personality				
Self-confident	+	0	0	-
Do-it-yourselfer	+	0	0	-
Non-neurotic**	+	+	-	-
Not obsessed with cleanliness**	+	0	0	-
Accept Social Change	+	0	0	-

*where: + means higher than the total sample, 0 means the same as total sample, and - means lower (p 48)
** Dimension is reversed to more clearly illustrate consistency

Table 10.12

The Evidence for Two Cultures
(from Hornik & Schlinger, 1981, p 349-350*)

	Newspapers	Magazines	TV
Education	+	+	
Employment			-
Occupational Status	+	+	-
Business Travel		+	
Financial Security			-
Aesthetic & Cultural Interests	+	+	-
Community & political Involvement	+	+	
Sport		+	
Health	+		-
Mental Health			-

*Where + indicates a positive correlation and - a negative

required in order to recognize distinctive cultural patterns. Also, the median split method employed in this study cannot indicate either the actual extent or the intensity of the gap.

Coming from a slightly different perspective, Becker & Connor (1981) throw further light on the possibly emerging cultures and the question of judging cultural splits or distinctiveness. They approached the question through use of the Rokeach Value Survey. A re-analyzed summary of their data is shown in Table 10.13.

Table 10.13 shows that TV and print users have more differences than commonalities and that their differences at the value level are consistent with much of the above discussion. Perhaps the most significant feature of the table is the number of items on which there is no overlap between the electronic and hard copy orientations.

Heavy viewers rank highly what may be termed the traditional Christian set of values, while rejecting the need for imagination or accomplishment. They also record a wish for 'happiness' but not an exciting life. These are shades of a 'Brave New World' without challenge, but with plenty of soma. Anticipating the next section, we note that this value system is precisely what we expect of the personality type, 'Objective Internalizers'; happy to absorb ideas and values from the surrounding environment with little desire to act upon, or change, it. Their concern is not for personal success but for developing satisfying interpersonal relationships (Becker & Connor, p 39).

Table 10.13

TV and Hard Copy Cultures: Extent of Difference in Values
(from Becker & Connor, 1981, Tables 1, 2 & 3)

Instrumental & Terminal Values*	Heavy Use of:		
Differences	TV	News	Magazines**
Clean	+		-
Polite	+	-	-
Salvation	+	-	
Accomplishment	-	+	+
Imaginative	-		+
No Overlap			
Happiness	+		
An exciting life	-		
Freedom			+
Intellectual		+	+
Logical		+	+
Ambitious		-	
Self-controlled		-	
Family Security			-
Wisdom		-	
Mature Love		-	
Loving		-	-
Forgiving		-	
Cheerful			-
Pleasure		-	-
In common			
A world at Peace	+	+	
Equality	+	+	+
Capable	-	-	

*The difference between instrumental and terminal is not as critical here as the way in which the media preferences or usage are grouped. These cut across Rokeach's distinction.

**Where: a + means the heavier usage sample ranked the item as more important than the lower usage sample and a - means that the heavier usage group ranked it as less important or preferred. A difference of 2.0 in median score between heavy and low users determined which items were selected.

Print or hard copy users reject traditional values in favour of new ideas, being intellectual and logical, and showing some accomplishment. These values they see as tied to freedom which is another indication that it is from within this group that change agents arise. Imagination and achievement are central values or preferences of 'Subjective Externalizers'. Other values hint that readers, while in touch with the

environment, have become more than a little infected by the 'Me Decade' and probably include the most active strata of the Baby Boomers. Low ranks for self-control, mature love, etc.,while they may be seen as a rejection of religious values, can also be viewed as an index of individualism, or laissez-faire. They do not however, particularly value pleasure. A new configuration may be emerging.

The commonalities between viewers and readers are at the level of ideals which all cultures must hold to some degree if they are to be viable. These are peace and equality, approximating humanity and homonomy. The negative rankings given to being capable, appear to reflect the breakdown of the ideal of nurturance in U.S.A. culture. Becker & Connor found some significant correlations between the heavy media users, which reassured them that their data was valid. To find entirely distinct subcultures is uncommon within a single common culture (p 38). This confirms my point above, that cultures do not have to be at odds to be distinctive. Differences do persist between hard copy (literate and left brain) and electronic (iconic and right brain) lifestyles or orientations. There is overall, sufficient evidence of a gap to keep the two cultures hypothesis alive until some more decisive tests can be made. It may be however, that rather than two cultures there is a continuum of response to television which is determined in part at least by position in the personality space.

6. Television and Personality

The distinction between the last section and this is somewhat artificial in that personality as it is meant here is not inside the skin but a function of person-in-environment. As we have seen, it is impossible to discuss cultural differences between viewers and readers without invoking

personality dimensions. Here, however, we examine specifically evidence for such a systemic concept of personality, the consistency with whi its dimensions are uncovered and the extent to which it may explain differential responses to the television medium. Evidence for a parallel range of reactions at the neurophysiological level is presented in Part III.

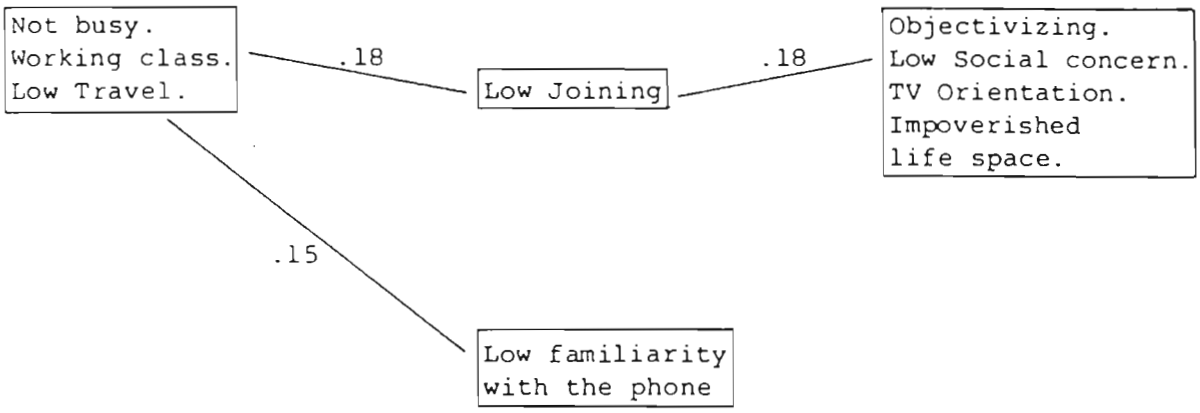
Direct evidence that personality dimensions influenced viewing was obtained by Emery & Emery, 1980. Subjectivizing-Objectivizing was related to a TV orientation while Internalizing-Externalizing was not. The matrix for the analysis of each dimension contained only those variables which correlated with the dimension at the p .01 level of significance. The configuraions which result from these linkage analyses should give a reasonably pure picture of the dimensions and thei cohesiveness. Figure 10.8 gives the configuration for the O-S scale.

Orientation towards TV is a derivative scale whose components include not only the amount of time spent watching TV but also measures which indicate that the reason for viewing is for sheer sensory pleasure, rather than for possible information content. It is one of the cluster of variables which includes objectivizing, the quality of being responsive to the environment rather than to internal thoughts and feelings (subjectivizing).

The combination of these variables, plus low joining behaviour and its further links to the working class cluster, suggests a dissociated, disadvantaged lifestyle, one we will explore in more detail below.

Figure 10.8

The Correlates of Objectivizing--Subjectivizing
(from Emery & Emery, 1980, Figure 3, p 4-9)



* The same configuration, but with all signs reversed, gives the pattern for Subjectivizing

** The correlations shown here between clusters have been corrected for attenuation caused by re-iteration of the matrix.

Himmelweit & Swift found strong relations between personality factors viewing and content preferences, over and above the effects of socio-economic class. Viewing was enjoyed more by the young men who felt relatively powerless, for the status quo and not forward-looking. Enjoying reading was associated with being forward-looking, non-authoritarian and placing little value on having a good time without responsibilities. A liking for violent content, contrary to expectation (p 145) was related to a cluster including strict parental control and authoritarianism. This comprehensive cluster was generally correlated with an "interest in strong stimulation within a safe, predictable, and stereotyped format" (p 147), a finding strongly supportive of the relation between heavy viewing and objectivizing. More generally the personality profiles differentiated by reading and viewing tend to confirm the respective influence on the subjectivizing and objectivizing ends of the input dimension. Himmelweit & Swift themselves propose a dimension running from success, adjustment and a positive outlook, to

withdrawal, lack of success and maladjusted passivity. Those at the positive end, select; the other extreme group uses to excess the least demanding of what television has to offer (p 155). No sex differences could be reported here as S's were all male.

In their attempt to discover which aspects of a televized instructional program were most related to learning, Brown et al (1975) found that "the more sociable and out-going persons performed less well." (p 399) As objectivizers, they would probably have been heavier viewers and less likely to resist the effects of the medium. More generally, subjects preferred dynamic or dramatic presenters, an indication that TV has raised expectations that education should be entertaining. Brown et al also noticed that "a sizable number of individuals engaged in extraneous activity not called for in the television segment. They took notes and drew in other designs that were displayed." (p 399-400) This is exactly the behaviour during viewing that Emery & Emery (1980) hypothesized for subjectivizors who resist the seductive effects of the medium.

The Singer team found two dimensions which they named as <u>resourceful</u> and <u>relational</u>, or externally and socially oriented. Resourceful describes a factor of curiosity, imagination, resourcefulness, independence, or adventurousness; a close match to subjective externalizing. 'Relational' comprised generous, helpful, likable, friendly and sincere which describes the objective internalizer. The former as a personal value rating of parents, is directly related to the play and pro-social behaviour of their children and is frequently found in inverse association with television variables (Singer, et al, 1982)

Another promising line of research involves family communication patterns, consumer and political socialization and media usage. These family patterns or qualities develop consistent communication structures or orientations which are more influential than amount of parent child interaction (Moore & Moschis, 1981, p 43). They correspond to Ackoff and Emery's family 'personalities'. Two which typically emerge are socio-orientation and concept-orientation, and these clearly correspond to the predominant mixed personalities of objective internalizer and subjective externalizer. Unfortunately, Moore & Moschis present a path analysis of their data without the original correlation matrix, a form of reporting which appears to be becoming more common but which does a disservice to research when new, more adequate methods of analysis are available. We cannot, therefore, examine all the interrelations in this data but the results are generally supportive of Ackoff & Emery's formulation and suggest that the personality or orientation of families is a determinant of media behaviour in the widest sense. As Table 10.14 shows, the objective internalizing family is more inclined towards a materialistic attitude while the subjective externalizers read newspapers and are better educated consumers. While both profiles were found to use TV in a motivated fashion, SES was negatively related to this variable, confirming both that the lower on the SES or quality of life scale, the more television viewing is indiscriminate, opium, and that personality is exerting an influence over and above disadvantage. Moore & Moschis note the consistency of these results with previous studies of political and consumer socialization and conclude that this process "apparently involves more than mediation of media effects; our data point to the fact that this learning may also be conditioned by the family communication environment." (1981, p 50)

Table 10.14

Relation of Family Personality to Media Behaviour

	Objective Internalizer	Subjective Externalizer
Materialism	+	
Viewing motives	+	+
Reading newspapers		+
Consumer knowledge & activity		+

In Summary:

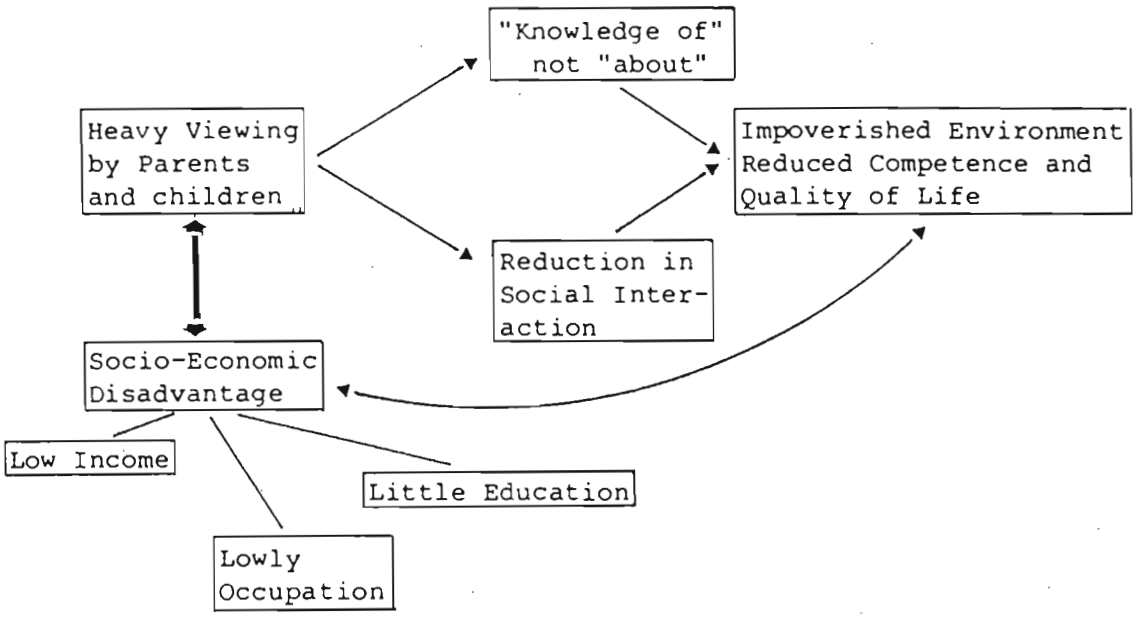
The dimensions of subjectivizing - objectivizing and internalizing - externalizing are recognizable within the literature and are related to television use in consistent ways. We may, therefore, conclude that rather than view responses to television as all or none phenomena, it is more useful to consider a continuum of orientation. An individual response will be correlated with sensitivity and responsivity to environment and as the evidence would indicate, particularly to the sensitivity dimension.

7. A Coherent Picture of Heavy Viewing

What has been missing in all of the above data is the systemic interrelationship between various factors concerning heavy viewing. The evidence presented here shows clearly that television is playing a role in the disadvantage cycle. I have organized this evidence into the configuration of Figure 10.9; a pattern hypothesized from convergences in the literature. It may be compared with an empirical one below derived from recent Australian data.

This figure summarizes what we have come to know from the various aspects of this review. It is self-explanatory except, perhaps, for the doubl link between Heavy Viewing & Socio-Economic Disadvantage. This represents my best guess about the strength of the relations between

Television as a Disadvantage Trap (Expected)



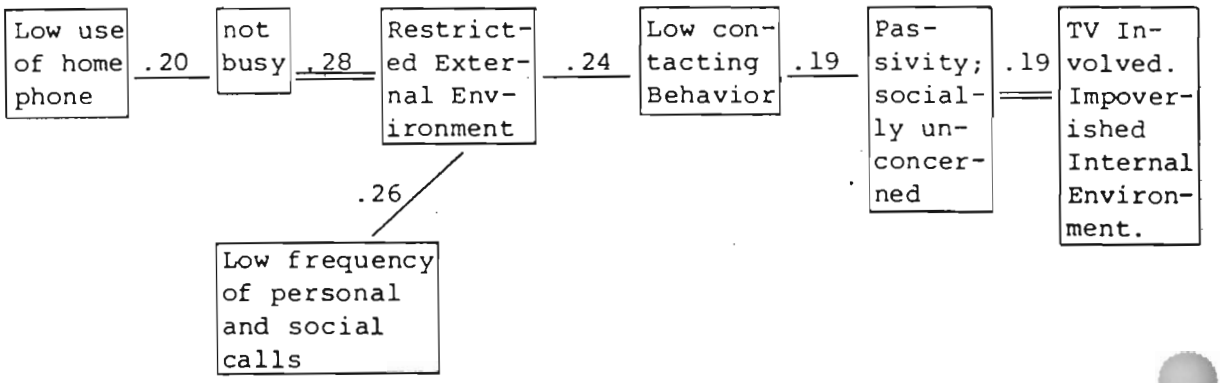
clusters; in other words, the data appears to support the notion that being born into a disadvantage trap is by far a more serious handicap on average than subsequent events and in modern times is highly related to abuse of the 'plug-in-drug'. Direction of the arrows indicates the most probable causal paths. Thus the arrow from heavy viewing to the 'knowledge' and social interaction clusters illustrates the consequences of television's content and medium characteristics respectively, and their subsequent convergence into a further reduced quality of life. The two-way relation between impoverished environment, quality of life and low SES has been amply recorded by recent history and in the case of the middle-class young unemployed, is capable of initiating new cycles of disadvantage.

Let us now compare the expected configuration with one provided by recent Australian data (Emery & Emery, 1980). This data is national, drawn from three geographically separate regions and selected to fit a Latin Square design which controlled for age, sex and class. Regions covered rural and urban areas. While focussing on the use of the telephone, the survey

was designed within an open systems framework and was therefore comprehensive. Analysis also was dictated by the systems framework ; the figure presented below is the result of the author's using the neo-McQuitty technique on the matrix of variables within the master matrix which correlated significantly with heavy television viewing.

Figure 10.10

Television as a Disadvantage Trap (Observed)
(from Emery & Emery, 1980, Fig. 32, p 11-6)



All links are significant at the $p < .01$ level

Restricted External Environment: comprises the following cluster of variables -- working class, low frequency of travel and of calls from the work place; low frequency of work-related calls; not having a mentally demanding job.

Low Contacting Behaviour: consists of two variables -- networking or being part of the information sector, and joining; a composite variable of no. of clubs and associations, etc. belonged to and active in.

Passivity; Socially Unconcerned: consists of low frequency of letter writing for other than work purposes, low frequency of reading (anything) lack of concern on part of self and friends about social issues of the day, and the personality dimension which is measuring the degree to which the individual attains knowledge and sensory pleasure from being perceptive to his physical world and others, not from his internal psychic realities, i.e. objectivizing.

TV Involved and Impoverished Internal Environment: consists of items covering few friends and relatives on the phone, having few friends or relatives in general, and a cluster of variables relating to television use. This cluster covers frequency of viewing, frequency with which they try to catch the news, what else they are doing (if anything) while the are viewing, and whether they are usually tuned into ABC or commercia TV. It is therefore a comprehensive scale, scored consistently to yield a dimension ranging from those who use TV heavily to get maximal sensory gratification, entertainment and relaxation, not information, to those who do not use TV for any purpose whatsoever, or if they use it minimally, choose only those programs which they believe add something to

their cognitive advantage; i.e. if they watch at all, it will not be for entertainment or relaxation.

Figure 10.10 confirms that much of the previously discrete data about the social role of television forms a coherent pattern. Our picture certainly demonstrates the extreme personal isolation of heavy viewers, to the extent that they infrequently lift the telephone, or initiate face-to-face contact. The correlation with the personality dimension of Objectivizing also indicates that the most vulnerable section of the population are those people who are most heavily dependent on the outside world, the real world of physical and social contact, for information and as the basis of judgement. These people then are triply disadvantaged by television's effects as a medium, its distortion of reality and its creation of myths. But "To confront the myth (of television) would be to admit that one was ineffective, isolated and incapable of recreating community and human communication." (Pawley , 1973, p 66) There is also a strong commonality between this adult pattern and the profile of the heavy-viewing child (Senate, 1978, p 27). All of the elements of SES, impoverished environment, which in the observed case comes together most closely with heavy viewing, are present. Knowing 'of' and 'about' are in the observed pattern merged within the TV involved scale but the reciprocal relation between this cluster and that of passivity and lack of social concern in sufficient to reinforce the conclusions drawn from the literature. Quality of life and specifically quality of work life which revolves around not having a mentally demanding job, is central to the configuration, bounded on the left by 'not being busy' and on the right by dissociation (low contacting behaviour). I have not assigned arrows to this figure as it seems at this stage redundant.

Needless to say, Emery & Emery introduced this pattern in their original report by explaining that it "is almost diametrically opposed to that f reading and letter writing". (1980, p 11-5) They continued, "nothing further from the active doers of the business call market or the conversationally inclined social callers could be envisaged in a normal democratic society. The pattern does, in fact, bear some resemblance to the market for protection and emergency calls, but goes beyond this by including impoverished life space, lack of social concern and almost all forms of basic social activity, media based and otherwise." (p 11-7) They concluded that in marketing terms for the telephone, it would be pointless to aim a campaign at the heavy viewer unless there was a point of recognition, a telephone, readily available.

Discrete social science hypotheses and intuitive judgements by social commentators have been guided by an underlying reality. As early as 1962 Daniel Boorstin was warning us of TV's powers to create a pseudo-world, a world composed of pseudo-events and pseudo-ideals, a world composed of images rather than realities. Twelve years later Martin Pawley showed us The Private Future, and Carpenter gave us Deja vu. These analysts all describe the scenario characterised as dissociation. These insights have not abated but have been boosted by more recent studies such as those by Robinson (1975) and Levine (1977). From all the studies reviewed, it is difficult to escape the conclusion that the more disadvantaged, the more TV replaces human contact, and so the cycle advances.

The most appropriate label for the configuration of Figure 10.10 is 'Th Private Future'. There can be little further doubt that television is a determinant of a dissociated and maladaptive human lifestyle.

"Television, queen of consumer durables, is also the principal assassin of public life and community politics." (Pawley, 1973) It would appear that the case is proven: television (CRT) technology has proven maladaptive to human life and learning.

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