

The Social Reality of Television Drama
Proposal for the renewal of a research grant

by George Gerbner and Larry Gross
The Annenberg School of Communications
University of Pennsylvania

A. INTRODUCTION

Man becomes a particular kind of human being through his use of symbols. Social regularities in human behavior cannot be understood in isolation from cultural regularities in the symbolic environment. And when the symbolic environment itself is changing, the quality of social health and behavior can best be assessed if we know which way the cultural tides flow. The purpose of Cultural Indicators is to provide such information.

This study continues previous research and a successful pilot project on the feasibility of indicators of the relationships between pervasive cultural trends represented by network television drama and popular conceptions of reality in critical areas of health, behavior, and policy. The project thus builds on the results of prior support by foundations, commissions, and agencies* and responds to needs and directions for priority research expressed in recent HEW and NIMH statements and reports.

A conference of staff and outside researchers and representatives of government and private agencies was held to advise NIMH on research to follow up and further develop the work of the Surgeon General's Scientific Advisory Committee on Television and Social Behavior. The report of that conference, recommended continued attention and research support to long-term, broad impact studies based on prior work in

*Including the U.S. Office of Education, the National Science Foundation, UNESCO and the International Sociological Association, the National Commission for the Causes and Prevention of Violence (Eisenhower Commission), the Surgeon General's Scientific Advisory Committee, and the National Institute of Mental Health. The key publications by the senior investigator which report theoretical and methodological developments stemming from these studies, and on which this proposal draws, are: "Toward Cultural Indicators: The Analysis of Mass Mediated Public Message Systems" in The Analysis of Communication Content: Developments in Scientific Theories and Computer Techniques, co-edited with Ole R. Holsti, Klaus Krippendorff, William J. Paisley and Philip J. Stone (Wiley & Sons, 1969); "Cultural Indicators: The Case of Violence in Television Drama," The Annals of the American Academy of Political and Social Science, 388:69-81, March, 1970; "Cultural Indicators: the Third Voice" in Communication Technology and Social Policy, co-edited with Larry P. Gross, and William H. Melody (Wiley & Sons, 1973). A popular article on "Communication and Social Environment" in the September 1972 Scientific American sketches the broadest context in which this research is conceived.

this area. The report specifically noted "The need for continuous monitoring, across time and across cultures, of what has been called the symbolic environment. . . We need a better understanding of this 'mainstream,' before we can realistically talk of intervention for change" (p. 9).

A similar conference on indicators of televised violence also recommended broad-gage research placing the issue of violence in the context of a more general assessment of television effects. Its recommended "violence profile" is one of the indicators included within the scope of the proposed research. Furthermore, this proposal is also responsive to the report's recommendation that ". . . The next step is to somehow link studies of viewers' perceptions of violence and its effects with the kind of sophisticated analysis of program content being carried out under the Annenberg School's project" (p. 6). Finally, in a letter of May 12, 1972, the then Secretary of HEW Elliot L. Richardson wrote Senators Pastore and Magnuson that the pilot project "to develop indicators of trends in prime-time television dramatic content and of their effects" including "its context and meaning to the viewer" is "essential to larger efforts to monitor TV violence regularly in a meaningful way useful to those responsible for planning social policy."

1. Objective

The basic assumption underlying this study is that television drama is in the mainstream -- or is the mainstream -- of the symbolic environment cultivating common conceptions of life, society, and the world. No member of society is unaffected by its dominant cultural trends. However, living deep in the mainstream, being a heavy consumer of its images and messages, mean more intensive acculturation and tighter integration of the myths and rituals of the symbolic world into one's view of how the real world works than does living a more insulated life or in a more independent or diversified cultural context. Therefore, while all Americans are influenced by the persistent symbolic structures of the cultural mainstream, more heavy viewers of television than light or non-viewers tend to conceive of reality as they experience it in the symbolic world of television drama.

The pilot study provides evidence of the plausibility of these assumptions and the feasibility of definitive research along these lines. A comprehensive and cumulative analysis of the symbolic world of television drama was related to images and conceptions of social reality held by children and adults in such areas of knowledge as geography, demography, personal and group stereotyping; age, sex, ethnic, etc., occupations, power, and other role expectations;

judgments of personalities and groups as to probabilities of success and failure, violent and friendly relations, winning and losing, etc.; and issues such as crime and victimization, family life, aging, addiction, minority group relations, and so on. The cultivation hypothesis was of course most testable in those aspects of social reality in which the "facts of life" in the symbolic world of television drama diverge from those of news and/or of the "real" world. The pattern of findings is remarkably consistent. It shows that the world of television drama does cultivate dominant conceptions of life and society even (or especially) when the real-life facts (or overt values) hold otherwise. The findings of the pilot project also indicate that those most integrated into the symbolic mainstream (the heavy consumers of its products) are the most likely to use its fictional structure to define the real world of people, places, and values.

These findings represent the first clear-cut demonstrations of significant media effects upon imagery and knowledge of critical social import. The effects are on a more basic level than those of attitudes, opinions, and campaigns of information or persuasion (which is where most previous research was conducted). They go to the very definitions and assumptions of the facts of life and society cultivated by massive and repetitive social symbolic functions of everyday "fantasy" output.

The proposed study will systematize, formalize, and, in a sense, institutionalize the regular collection and periodic reporting of such information. The mapping of the symbolic world and the tracing of its effects with respect to both general conceptions of social reality and a set of critical public issues such as education, health, violence, public authority, law observance, and domestic and global group relationships will be developed into a cumulative and comparative research enterprise. At the conclusion of the proposed project, the theory, methodology, and presentational techniques for the annual reporting of a set of multi-dimensional comparative indicators will be available for the continuing mapping and interpretation of the image and knowledge cultivation characteristics of American television.

Why television drama

Television dominates the prevailing climate of the mass-produced symbolic environment. Its dramatic programs (plays, films, cartoons) cultivate synthetic images of life, society, and the world. Their perception as "entertainment" assures, if anything, relatively easy and universal participation in the usually realistically depicted fantasy world they present. Never before have such large and heterogeneous publics -- from the nursery to the nursing home, from ghetto to penthouse -- shared so much of a system of messages and images, and the assumptions embedded in them. What do these images and messages cultivate in common? What do they teach differently to children and adults, to men and women, and to various social groupings? How do the symbolic structures and their functions change over time?

Fiction and drama offer special opportunities for the cultivation -- and, therefore, analysis -- of elements of existence, values and relationships. Here an aspect of life, an area of knowledge, or the operation of a social enterprise appears imaginatively re-created in its significant association with total human situations. The composite "worlds" of fiction and drama can

reveal social mechanisms underlying, but not necessarily apparent in, other modes of presentation. Those who neither seek nor would select a wide range of specialized subject matter will find it, nevertheless, in drama and fiction. Most people, and especially the young and the less educated of all ages, encounter most subjects in the form of such "incidental" treatment in the course of their relatively non-selective leisure-time "entertainment."

What is true for the presentation of miscellaneous subject matter applies even more to the cultivation of personal and social characteristics, stereotypes, values, policies, and norms of conduct. Unlike life, the bulk of popular fiction and drama is an "open book." Characterizations are relatively clear-cut, motivations are transparent, problems and conflicts are explicit, and the interplay of forces that determines the outcome, as well as the outcome itself, are usually clear. These characteristics of everyday fiction and drama make them the most common and accessible source of public acculturation.

The research leading to cultural indicators began, therefore, with the analysis of the most pervasive and comprehensive images of everyday culture found in television drama. For most Americans most of the time television is popular culture. The symbolic structures and functions of the message systems found in television drama have provided the basis for an investigation of the assumptions, conceptions, and tendencies cultivated in their viewers. The pilot project gave striking evidence of such cultivation among heavy viewers. The next and final phase of research development should establish and demonstrate the theoretical and practical usefulness of cultural indicators as guides to scientific understanding, citizen and consumer behavior and public policy in communications and culture.

3. Rationale

Imagine a hermit who lives in a room which is linked with the outside world via a television set that can only receive dramatic programs. This person's knowledge of the world would be built exclusively out of the images and "facts" which he could glean from on an unending diet of fictional events.

What would exist in this man's world? Obviously, only those persons, objects, places and events that are depicted in television drama. What would seem important in this world? Clearly, the importance of the various elements of his "reality" would be determined by the frequency of their appearance and by the centrality of their roles. Similarly, the ways in which the various constituents of the television world are portrayed and organized would be the only source of his knowledge of their value and of their inter-relationships. The population of his world would be the population of television drama; his expectations and judgments would be derived from the conventions of plot and outcome that dominate television drama; his view of human nature would be based on the shallow psychology of central-casting characterization.

While few are likely to find themselves solely dependent upon television drama for their knowledge of the world, it seems worth asking how much our view of the world actually resembles that of our hypothetical hermit. And, possibly more importantly, how similar will a child's world be, given relatively little exposure to the complexities of the "real" world and a steady diet of exposure to the world of television?

All art is based on conventions that govern the selection and organization of elements. The skill of the individual artist is only visible against the background of the stylistic conventions of his period and medium.* The dominant stylistic convention of Western narrative art -- novels, plays, film, TV drama -- is that of representational realism.**The premise of realism as a stylistic convention even of fantasy materials such as cartoons has important implications. It makes the audience respond as if the artist's choices were governed not by the conventions of art but by the facts of life. However stereotyped the plots are, we assume that they take place against a backdrop of the real world -- the details must be naturalistic or we feel that something is wrong. Characters must behave as people would in most situations. The conventions of character development are those of Sunday-supplement psychology. When the impossible does occur it will often be treated as if it, too, were part of a natural order in which nuns could fly and animals speak. Nothing impeaches the basic "reality" of the world of fictional entertainment.

This picture of the conventions of realism may not fit the facts of "high culture" or avant-garde art in our time, but it is certainly appropriate for the world of television drama. The world of television drama is the world we live in. It is also the world of the past as we think we know it, and often of the future as, perhaps, we have come to expect it.

If the premise of realism in television drama seems a bit thin for some adult viewers, it is certainly plausible for most children who are not as skilled at discerning the evidence of "poetic" license. A study completed recently by James Murphy, a member of the staff of the pilot project, has shown the extent to which children will respond to a story shown them in the form of photographic slides by stating that it was "real" -- that it really

*Larry P. Gross, "Art as the Communication of Competence," Social Science Information, (UNESCO, in press).

**The pilot study found 96 percent of all television plays (other than cartoons) to be realistic in style.

happened.* Greenberg's study of "Children's Reactions to TV Blacks" found the effects of TV exposure generally even more marked and judged more "real to life" than that of personal encounter.**

Television drama, operating on this premise of realistic depiction, offers the viewer an apparently rich array of windows through which he can glimpse apparently diverse images and events. But the diversity is only in the shape of the window and the angle of the flimpse -- the basic topography of the fictional world is constant. It is also highly informative. That is, it offers to the unsuspecting viewer a continuous stream of "facts" and impressions about the ways of the world, the constancies and vagaries of "human nature," and the consequences of actions. The premise of realism is a Trojan horse which carries within it a highly selective and purposeful image of the facts of life.

What is this image of the world, what are the lessons of this hidden curriculum, and are they indeed learned by the unsuspecting pupils of television? These are the questions which we are addressing in an attempt to analyze the critical symbolic messages of television drama and to trace their impact on the beliefs and values of its audiences.

4. Progress report

A major objective of the pilot project was that of methodological development and instrument-testing. However, early indications of the substantive findings coming from the testing provided strong indication of significant results. If these are born out in the main project now proposed, as we fully expect them to be, the proposed study will represent the first clear-cut evidence of massive influence of television viewing and other media exposure upon public conceptions of social reality.

*James P. Murphy, "Investigation of the Nature and Development of Interpretive Competence," paper presented at the International Communication Association, Montreal, April, 1973.

**Bradley S. Greenberg, "Children's Reactions to TV Blacks." Journalism Quarterly, 50:5-14, Spring, 1972.

This report was delayed until some of the results could be included, even though the pilot project still had more than six months to go. At the same time, and for the same reason, it was not possible to provide more than a few highlights and a sketchy rather than comprehensive account of the findings.

a. Period

The period of time covered in this progress report is the first 17 months of the 2-year pilot project, from January 1972 through May 1973.

b. Summary

The nature of the world portrayed in prime time television drama and its effects in cultivating conceptions of social reality was the subject of this pilot study. Reliable methods for the analysis of dramatic message systems were developed and applied. Semi-projective picture tests and a questionnaire survey were developed and administered.

Six years' accumulation of analytical material was the data base upon which the television content study proceeded and which will be updated annually in the proposed main study. The results of the pilot study featured stylistic, demographic, occupational, and dramatic action (mostly crime and violence) aspects of the television world, and pointed up the importance of a detailed analysis of the facts of the "message" before undertaking a study of its presumed effects.

Major methodological and substantive developments in the study of cultivating effects can be reported here. Several picture tests administered to different groups of white and black children revealed both the general and the specifically TV-related existence of those stereotyped conceptions of people and their probable fates that was also found to be characteristic of the television world. A telephone questionnaire administered to a national probability sample of heavy and light television viewers further demonstrated significant associations of television exposure with conceptions of salient aspects of social reality.

c. Detailed report

We undertook to develop methodologies for the reliable observation of "facts of life" of the world of television drama, and to create tools and procedures for the assessment of the conceptual consequences of "living" in that fictional world. The first type of research we call the analysis of message systems. The second is the study of the conceptions they tend

to cultivate among those most heavily exposed to them. In testing the cultivating effects of the "facts of life" in the world of television drama we relied primarily on those "facts" that diverge from the "real world" as represented in factual statistics and possibly news accounts.

Message system analysis. Network dramatic programs transmitted in prime time (7 through 11 p.m.) and all day Saturday for one full week in the fall of each year (after the launching of the new season) comprised the annual samples on which message system analysis was performed by trained coders. The training consisted of multiple codings following an instrument of analysis and the screening and final selection of coders on the basis of the results of a diagnostic procedure.

The reliability of the analysis is also measured by multiple codings and the application of appropriate formulae for the assessment of the reliability of coder observations (see "Methods of Procedure," below).

The instrument of analysis used in this pilot study had three parts. Part A was devoted to the systematic observation of those "facts of life" in the world of television drama that pertain to a program as a whole: style, time, place, setting, group relations, thematic structure. Part B dealt with the demography, health, personality profile, value structure and selected relationships of the cast of characters populating the television world. Part C pertained to the intensive study of selected types of dramatic action.

Six years of research made available to the project the analysis of 656 programs (plays), 1907 leading characters, and 3505 acts or episodes. The rich and complex cumulative archives of this project will take time to digest, formalize, and report in a systematic and periodic fashion. Thematic trends appear to be remarkably consistent despite apparent fluctuations of style and the popularity of different formats. Only a few highlights of this analysis can be noted here.

More than nine out of ten dramatic programs (other than cartoons) are "realistic." The world of television is mostly domestic, urban, and contemporary. Foreigners make up 14 percent of its population. The fantastic and the implausible are more likely to occur far out in the country, or in other countries, than close to home. Wars, small towns, places of great wealth and poverty, and sparsely populated areas are more likely to be found abroad than in the U.S.

The past is rarely and the future is never comic. Poverty is funnier than wealth, even if it is rare (once in a hundred settings) and far away. Most of those employed in the world of television drama are professionals, but most are also unmarried and in the prime of life. Business, government, entertainment, law enforcement, and crime are the major occupations. Half of all people commit violence, one fifth perpetrate some crime, six percent kill someone and three percent are killed.

Males outnumber females four to one. Children's cartoons portray even fewer women and more violence. Children and old people are hard to find; each comprise only about six percent of the television population. More females than males are young, but women age earlier and faster than men. The aged are more likely to be evil, and thus to fail, than the more youthful.

Social power on television is demonstrated in the pattern of violent action. Although in 1972 the violence index was at its 1970 level (slightly below 1971), and the number of violent characterizations declined somewhat, the rate of violent episodes rose and the ratio of victimization was the highest in six years. That ratio, the number of victims for each violent character, might be considered an indication of domination and possibly fear cultivated in the television world. The victimization ratio for the last six years was:

1967	1.16
1968	1.13
1969	1.21
1970	1.09
1971	1.10
1972	1.26

Thus the absolute amount of violence is not necessarily a good measure of its functions in shaping conceptions of social reality. For example, the victimization ratio for white males was 1.13, for other males 1.18. The same ratio for all males was 1.14, for all females 1.39. The charts on page 157 of Appendix A also illustrate how the power structure of the television world victimizes females and nonwhites, even among cartoon "animal" characters.

The next question is how the social symbolic context of the television world affects the prevailing cultural climate and cultivates viewers' conceptions of the facts of life. That is the question addressed in the cultivation analysis part of the pilot (and the proposed) project.

Cultivation analysis. Semi-projective picture tests and a questionnaire administered to different groups of respondents were the principal methods for the assessment of the dominant imagery and cultivation effects attributable to television. The picture tests were developed with relatively small groups of children, most of whom are moderate to heavy viewers of television. The purpose was mainly to develop relatively non-structured (and nonverbal) measures of imagery usable with children, and to test their efficacy in eliciting responses that could be related to general cultural stereotypes presented on and presumably cultivated by television. The specific cultivating effects were tested in one of the picture tests and then by the questionnaire on a national probability sample of heavy and light viewers matched on some other characteristics and also grouped by some other media habits.

The first set of semi-projective materials consists of a large set of passport-type passport-type photographs of a heterogeneous group of people taken by us under standard conditions. The pictures have been reliably coded in terms of race, sex and age, and can be put together in various ways. We have used somewhat different sets for different purposes. We are currently

testing a standardized set of 40 pictures which is divided into equal sub-groups of black and white, male and female, young (18-30) and older (35-60). We have had copies of this set printed on large sheets of heavy paper, randomly ordered and coded numerically for group and individual testing.

In addition, we can utilize groups which represent other population segments, for example, elderly or Asians.

We have used these pictures to examine the questions of violence and victimization. In the world of television the "victimization ratios" demonstrate the power of the white and the male over the non-white and female. When we asked children to make judgments about our picture-set people, we found very similar patterns. Using one method, we asked groups of children (aged 8-10) to rate each picture in a set of 40 (20 male, 20 female; 20 young, 20 old; all white), in terms of the likelihood that the person might murder someone, be murdered, or, in a dichotomous choice, kill or be killed. Some were also asked to answer the questions as though these people were all characters from television patterns. The data are very clear (see Table 1). The killers are the young and the male, the victims are young females and older males.

Another group of children was asked to pick out of a bi-racial set all of those who might be murderers and all who might be the victims of murder (not mutually exclusive). They were also asked to make the same choices in terms of TV -- that is, which of the people would be likely to murder or be murdered if they were all characters on television. The ratios of murderers to victims by race and sex (Figure 1) show a pattern which is familiar to television viewers, and reminiscent of our analysis of television drama. White males are equally murderous and victimized, black males are mainly murderous, black and white females are victimized. Children see the pattern essentially the same in terms of life and television. The generation difference also shows up here. The young males are more murderous; the old, especially old women are overwhelmingly victimized.

In another test, a group of white and black public school children was asked to pick three characters out of a set of 40 according to the following plot: there is a hero who will oppose and defeat a villain, and save an innocent person who has been victimized by the villain. The heroes chosen by the children were young (73%), male (61%) and white (58%). The villains were also young (70%), male (67%) and white (58%). The victims were more evenly distributed -- 58% young, 52% male, 57% white. Also of interest is the tendency for blacks to choose white characters and females to choose male characters. Females chose twice as many male heroes than males chose females for the hero role.

For another group of black junior high school children we compared the role-portrait choices of the heavy and the light television viewers. The comparisons are in Table 2. (Note the relatively high levels of television viewing in both groups.) The most striking differences are in the choice of heroes (heavy viewers choose more males) and victims (heavy viewers choose more females), which tend to follow the lines of television drama. Heavy viewers also pick more whites as heroes and victims, though not as villains.

TABLE 1: Children's Responses: Violence Probabilities

Question No.1: How likely is each person
to murder someone (1-5) ? (N=10)*

	Young	Old
<u>Male</u>	3.6	2.9
<u>Female</u>	3.1	2.2

- A. Male vs. Female: $p = .001$
 B. Young vs. Old: $p = .001$
 C. Sex vs. Age: n.s.

Question No.2: How likely is each person
to be murdered (1-5) ? (N=10)*

	Young	Old
<u>Male</u>	2.6	3.4
<u>Female</u>	3.2	2.6

- A. Male vs. Female: n.s.
 B. Young vs. Old: n.s.
 C. Sex vs. Age: $p = .001$

Question No. 3: How likely is each person
to kill (5) or be killed (1) ? (N=10) *

	Young	Old
<u>Male</u>	3.8	3.1
<u>Female</u>	3.0	2.2

- A. Male vs. Female: $p = .001$
 B. Young vs. Old: $p = .001$
 C. Sex vs. Age: n.s.

Question No.4: How likely is each person
to kill (5) or be killed (1) on TV? (N=10)*

	Young	Old
<u>Male</u>	3.7	3.0
<u>Female</u>	2.8	2.5

- A. Male vs. Female: $p = .001$
 B. Young vs. Old: $p = .002$
 C. Sex vs. Age: n.s.

* All Ss are children, 8-10 years old.

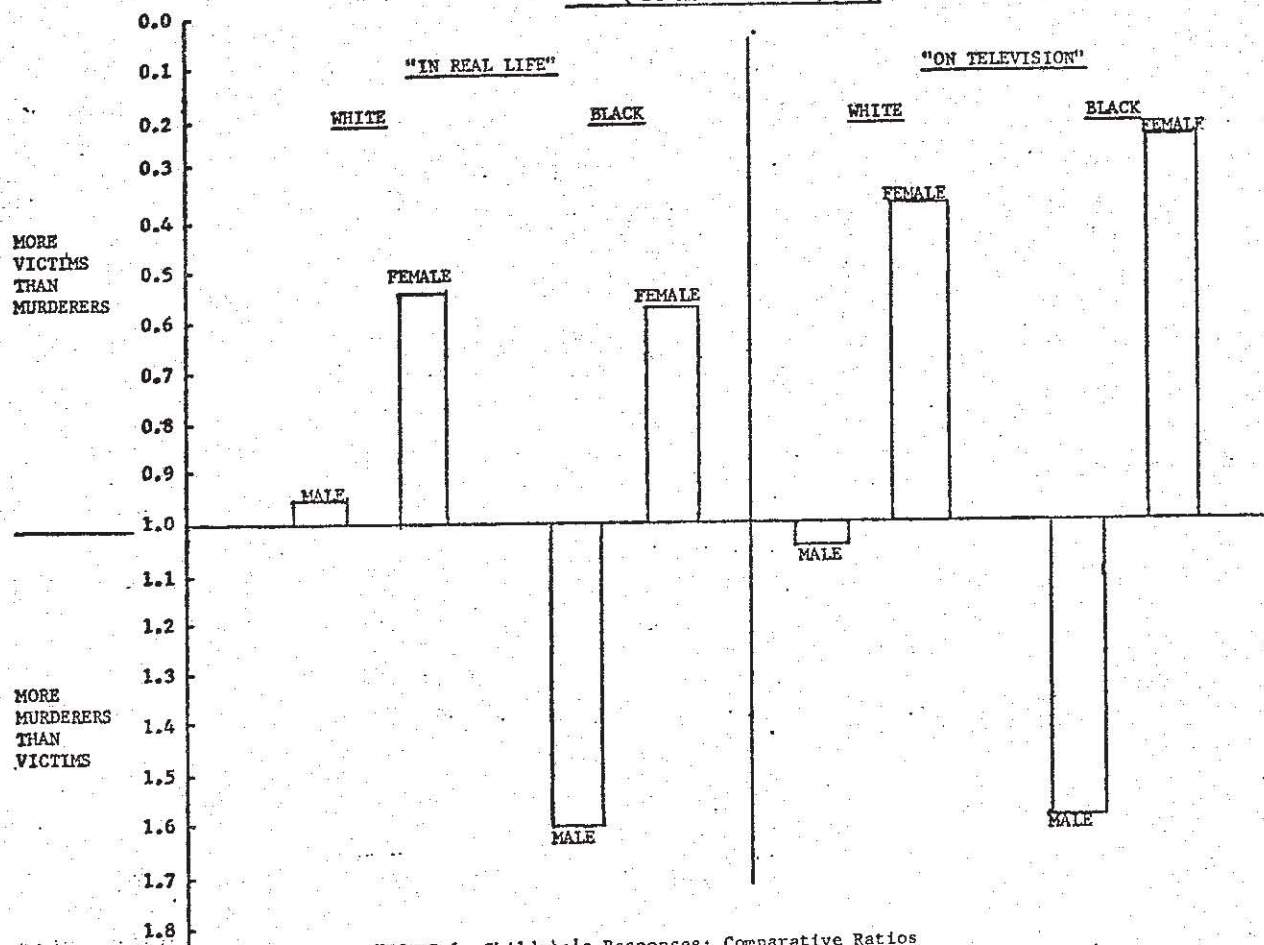


FIGURE 1: Children's Responses: Comparative Ratios

TABLE 2: Role-Portrait Choices and Television Viewing Habits for 23 Black 9th-grade Students

ROLE	SEX		RACE	
	MALE	FEMALE	WHITE	BLACK
I. WINNER -- HERO				
LIGHT VIEWERS (1-6hrs):	62.5%	37.5	--	100.0
HEAVY VIEWERS (7-15hrs):	73.2	26.5	33.5	66.5
II. LOSER -- VILLAIN				
LIGHT VIEWERS (1-6hrs):	100.0	--	37.5	62.5
HEAVY VIEWERS (7-15hrs):	93.2	6.6	33.0	67.0
III. VICTIM				
LIGHT VIEWERS (1-6hrs):	37.0	63.0	12.5	87.5
HEAVY VIEWERS (7-15hrs):	20.0	80.0	40.0	60.0

We have also done some pilot work with a very different set of photographs. These are pictures of scenes which include two or more people in interaction, and resemble the ambiguous stimuli of the Thematic Apperception Test. We have produced these pictures in two formats, one of which appears to have been taken from a television screen. We have given these pictures, in both formats, to respondents who are asked to tell us what they think is happening, who the characters are, and what the outcome is likely to be. It is premature to give results, but the method seems fruitful, and we are hopeful that we will be able to obtain interesting data in this way.

* * *

Our strategy for the investigation of television effects upon specific facts and conceptions of social reality begins with the analysis of the world of television drama. We then compare the facts of life on television with those available for parallel aspects of the "real world." To give a relatively simple example, most criminal cases involving violence are decided by judges. On television, however, courtroom trials are an important dramatic arena, and guilt or innocence are usually determined by juries.

Our next step is to ascertain what respondents -- adults and children, viewers and non-viewers -- think is the true state of affairs. By matching the judgments of our respondents with the data derived from our analysis of television drama and from real-life sources we can build a composite picture of the relationships between these three images of the world. In many cases it is possible to trace a line extending between the image of the world via television and that image which presumably reflects the true world of fact -- and then place our respondents at various points along this dimension. In such cases we may be able to see how close our viewers come to seeing the world as would our hypothetical hermit in solitary confinement with a television set.

The primary tool we have been developing for this purpose, in addition to the portrait sets discussed above, is a semi-projective questionnaire. This instrument incorporates two main types of items. The first type consists of forced error choice items, similar to those used by Hammond*, which require the respondent to select one of two or more answers to a factual question. All of the answers are incorrect, but they are chosen so as to reflect either the bias that is characteristic of television drama, or to represent a bias in a direction opposite to that which would be found on television. In other words, these items require the respondent to choose answers which may reflect either a "television" or a "non-television" (which often means "real world") bias. The second type of item is designed for the same purpose but asks opinion, as opposed to factual, questions on issues that are presented on television in a markedly slanted fashion.

*Hammond, K. R. "Measuring attitudes by error choice: an indirect method," Journal of Abnormal and Social Psychology, 43:38-48, 1948.

We have assembled an instrument which contains over forty such items, as well as questions about the respondent's age, sex, education, and media habits (daytime and evening television, television news, newspapers, news magazines). This questionnaire was administered by Daniel Starch, Inc./C. E. Hooper, Inc. in the form of telephone interviews to a probability sample of 607 adult respondents in four metropolitan areas. The sample was pre-screened to form two equal groups of light television viewers (less than 2 hours per day) and heavy television viewers (4 hours or more).

The survey was conducted in April, 1973, and we have only partially analysed the results at this point. Some of the clearest patterns we have observed come from the "factual" items in which respondents must choose between answers which represent a television bias and items which represent a non-television bias or a tendency toward reality. One form of analysis consists of comparing the various sections of our sample in terms of the bias-choice patterns. We have calculated the percent "toward TV" choices for the heavy viewers, and for the light viewers. The difference between these percentages we term the "Cultivation Differential" of television viewing for each item.

We have compared the cultivation differentials of several media for a number of "factual" items (see Table 3). Two striking patterns emerge in these comparisons. The cultivation effects of general television viewing show positive and often significant differentials between heavy and light viewers -- with heavy viewers being more likely to choose answers which reflect a "television" bias. As can be seen on Table 3, 11.3 percent more heavy viewers than light viewers overestimate the percentage that Americans are of the world population; that is, in fact what they experience in the world of television. (Sex, age, and education do not significantly affect these margins.) Heavy viewers similarly carry their television experience into the real world of social reality when they give a "television" rather than the very different "real world" answer to questions on population density, employment, crime and violence, and law enforcement. One of the most telling results of exposure to the pattern of victimization seen on television is the fact that heavy viewers significantly overestimate their own chances of encountering violence in real life.

It is interesting to note that the cultivation differentials for heavy and light viewers of television news programs show the same pattern of positive effects. This is particularly striking in view of the second set of comparisons, which show an opposite tendency for heavy vs. light readers and news magazines. (These comparisons are independent of television viewing habits, which are evenly distributed across reading-habit categories.) We find that heavy readers (especially newspaper readers) are consistently, often significantly more likely to choose the non-television biased answer. We feel that this is an important trend which may help to identify the cultivating powers of the various media, and allow us to assess the effects of television in the over-all context of media exposure.

Other comparisons indicate that the viewers of daytime serial programs (who are not all women by any means) show the same cultivation patterns as heavy viewers in general; if anything they show stronger effects. Somewhat more surprising is the fact that education does not seem to predict

TABLE 3: Differences Between Heavy Viewers' and Light Viewers' Conceptions Compared to those of News Readers

QUESTION	CULTIVATION DIFFERENTIALS			
	TV VIEWING HEAVY - LIGHT	TV NEWS VIEWING HEAVY - LIGHT	NEWSPAPERS HEAVY - LIGHT	NEWSMAGS. ANY - NONE
1. US POP. AS % OF WORLD POP. (TV OVEREST.)	+11.3**	+9.2**	-10.9*	-6.7
2. POP. DENSITY OF US VS. OTHER COUNTRIES (TV OVER):	+8.9 **	+3.2	-13.8**	-3.6
3. % WHITE AMER. EMPLOYED AS PROF.& MANAGERS (TV OVER):	+14.4**	+9.4**	-10.7*	-8.5.
4. % NONWHITE AMER. EMPLOYED PROF. & MANAGERS (TV OVER):	+ 6.5*	+8.1	- 5.9	+2.3
5. % EMPLOYED AS PRO ATHLETES, ENTERTAINERS, ARTISTS (TV OVER):	+10.2**	+11.0**	-14.4**	-7.1
6. % MALES WITH LAW ENFORCE. JOBS (TV OVERESTIMATES):	+ 9.3*	+12.1**	-18.5**	-1.7
7. % CRIMES THAT ARE VIOLENT (TV OVERESTIMATES):	+ 8.1**	+ 7.4	- 7.2	-11.9**
8.. FATAL VIOLENCE OCCURS BET. STRANGERS (TV PATTERN) :	+ 3.4	+ 8.7*	- 2.8	-15.1**
9. % AMERICANS VICTIMS OF VIOLENT CRIME (TV OVER):	+ 1.6	- 0.5	- 8.7*	- 1.8
10. CRIM. CASES DECIDED BY JURY OR JUDGE (TV SAYS JURY):	+ 6.5	+ 8.5*	-17.5**	- 7.0*
11. YOUR CHANCE OF ENCOUNTERING VIOLENCE (TV OVERESTIMATES):	+12.8**	+ 4.6	-12.7*	+ 3.1
12. CONVICTIONS BASED ON EVIDENCE OR TESTIMONY (TV SAYS EVIDENCE):	+ 5.9	+15.1**	- 1.6	- 4.5

* Differential significant (phi coefficient), p=.05

** Differential significant (phi coefficient), p=.01 or better

cultivation patterns in a completely consistent manner. As we had supposed, respondents with higher educational levels often are less likely to choose the television-biased answers but, in some instances, they seem as likely to do so as those with only high-school or grade-school education. We hope that further analysis will help to clarify the relationship of education and cultivation patterns.

We are also working with an open-ended form of this questionnaire in which the respondent is not given specific choices but is asked to estimate the correct answers to the same questions. On the basis of the limited data we have acquired so far it appears that such answers are fairly comparable to those in the original form, both in absolute magnitude and in cultivation patterns. Firmer conclusions will require more data from samples which include a broader range of respondents than we have so far utilized.

D. SIGNIFICANCE

Culture is that system of messages which cultivates patterns of shared images and, therefore, of social behavior, relationships, and interactions. Acculturation is that critical aspect of socialization which denotes the development of stable images of self and the world, and of how to behave in one's world. The dominant communication agencies produce message systems that cultivate the broadest common notions of what is, what is important, and what is right. They structure the public agenda of existence, priorities, and values. People use this agenda -- some more selectively than others -- to support their ideas and actions. Any significant change in the technology, ownership, clientele, outlook, or other institutional characteristics of dominant communication agencies may alter the patterns.

In a folk culture, the production of traditional symbols and figures (representations of gods, chiefs, demons, animals, and men), the conduct of rituals, and the spinning of tales inspire awe and strike terror, as needed, to control the "growing up" process. In mass cultures, institutional policies and manufactured symbolic commodities cultivate norms of conduct.

Mass communication is the extension of institutionalized public acculturation beyond the limits of face-to-face and any other personally mediated interaction. This becomes possible when technological means are available and social organizations emerge for the mass production and distribution of messages. Mass media are such technological means and social organizations, with television being the most broadly shared and ubiquitous of American mass media.

A long series of private and government commissions, Congressional committees, and foundation-supported studies have, since the early 1930's, called for some sort of media surveillance. But none of these proposals spelled out how that might be done, or limited the scope to manageable proportions clearly relevant to scientific purpose and public policy. And, at any rate, none of them was implemented.

Our prior studies, supported by the National Science Foundation, the Surgeon General's Scientific Advisory Committee on Television and Social Behavior, the National Institute of Mental Health, and other agencies, have established the basis for and have demonstrated the feasibility of this project. Social scientists, legislators, and government agencies have called for the development of indicators and profiles of cultural trends relevant to salient issues of social health and national policy, and conducted in a broad and sophisticated framework.

We need to know general trends in the cultivation of assumptions about problems of existence, priorities, values, and relationships before we can validly interpret specific relevant policies or facts of individual and social response. Interpretations of public opinion (i.e. published responses to questions elicited in specific cultural contexts), and of many media and other cultural policy matters, require cultural indicators similar to the accounts compiled to guide economic decisions and to other indicators proposed to inform social policy-making.

The most general significance of cultural indicators will be, therefore, that of a systematic and reliable surveillance of mass-cultural configurations and of their symbolic functions. A more specific area of significance will be the testing of a theory of symbolic functions which contends that mass-distributed (televised) dramatic entertainment provides common and ritualistic demonstrations of social relationships, powers, and values, and, furthermore, that these symbolic functions cultivate the most pervasive public conceptions of social reality.