This is a progress report in the long-range research called Cultural Indicators that also yields the annual television Violence Profile. The first reports were published in 1969 (4) and 1972 (5). The general theory and design of Cultural Indicators appeared in 1969 (6) and 1973 (7). Previous reports in this Journal described the history and theory of the research and Violence Profile No. 7 in 1976 (8), and presented Violence Profile No. 8 in 1977 (9). This report will discuss the expansion and diversification of the Cultural Indicators research, and present Violence Profile No. 9. We shall stress methodology, current findings on the distribution of power in the world of television drama, and the behavioral correlates of viewing. A full Technical Report is also available (11).

This research began with the investigation of violence in network television drama in 1967-68 for the National Commission on the Causes and Prevention of Violence. It continued under the sponsorship of the Surgeon General's Scientific Advisory Committee on Television and Social Behavior, the National Institute of Mental Health, and the American Medical Association. Although violence-related findings and indicators have been published most widely, the approach was broadly based from the beginning to collect observations on the role and symbolic functions of general patterns of life presented in television drama.

The research consists of two interrelated parts: (1) Message System Analysis -- monitoring of the world of television , and (2) Cultivation Analysis -- determining the conceptions of social reality that television tends to cultivate in different groups of child and adult viewers. The analyses provide information about the geography, demography, charac-

ter profiles, and action structure of the world of television, and focus these images and lessons upon specific issues, policies, and topics.

The Cultural Indicators design and data archives have generated a considerable amount of research during the past few years. Two theoretical papers have looked at the importance of using the Cultural Indicators paradigm to study television news (12) and to assess television's impact upon children and adolescents (13, 17). One article examines personal and social characteristics of the non-viewers of television (16). Message Analysis data have been analyzed to isolate the image of the elderly who portray major roles in prime time network dramatic programming (28).

Several analyses of cultivation data have revealed that heavy television viewing is consistently and negatively related to lower IQ and achievement (especially reading comprehension) scores. Moreover, the amount of television a child watches is a better predictor of IQ than numerous other variables such as social class (24, 25, 26). Cultural Indicators researchers have also looked at six occupations in terms of their portrayals in prime time programming as well as children's conceptions of these occupations (19); and how television viewing is related to educational aspirations and sexist attitudes among adolescents (13).

Finally, one analysis (15) found that, over time, newspaper reading predicted significant increases in children's political interest and knowledge, while television exposure was related to significant reductions in these aspects of political learning. However, where compared to interpersonal political discussion, both television and newspaper exposure were germane to political socialization. Another study (17)

found that adult heavy television viewers were less active and interested in political affairs.

Plans call for extending the research to aging, health, family life, occupational choices, education, and other areas. In each case, the contributions of television to viewer's conceptions of social reality is the focus of investigating.

This article continues the series of Violence Profiles and expands on previous descriptions of Cultural Indicators research.

Television is the chief creator of synthetic cultural patterns (entertainment and information) for the most heterogeneous mass publics in history, including large groups that have never before shared in any common public message systems. The repetitive pattern of television's mass-produced messages and images is the mainstream of the common symbolic environment that cultivates the most widely shared conceptions of reality. We live in terms of the stories we tell -- stories about what things are, stories about how things work, and stories about value and worth -- and television tells them all through news, drama, and advertising to almost everybody most of the time.

Television drama is the heart of that process because it offers the most diverse audience of viewers a common and stable pattern of "facts" about life and the world. No member of society escapes the lessons of almost universally enjoyed entertainment, and many millions of viewers seek no other information.

Cultural Indicators research begins with Message System Analysis, a flexible tool for making orderly, reliable and cumultiave observations of programming content. The technique allows us to identify almost any aspect of the television world, so that we can then test its contribution to viewers' conceptions of the real world.

> Large aggregates of television output (rather than individual selections from it) are the systems of messages to which total communities are exposed.

Message System Analysis focuses on the gross, unambiguous, and commonly understood facts of portrayal. These are the features that can be expected to provide bases for interaction and common assumptions and definitions (though not necessarily agreement) among large and heterogeneous mass publics.

Message System Analysis has been performed on annual sample-weeks of prime-time and weekend daytime network dramatic programming since 1967 by trained analysts who observe and code various aspects of television content. To date, 1437 programs, 4106 major characters, and 10,429 minor characters have been analyzed.

The purpose of the analysis is to provide systematic, cumulative and reliable observations. The analysis identifies many different aspects of program content. The findings reported here focus primarily upon the portrayal of violence defined as the overt expression of physical force, with or without a weapon, against self or other, compelling action against one's will on pain of being hurt or killed, or actually hurting or killing.

A rigorous three to four week training period assures that coders isolate all and only clear, unambiguous, overt physical violence. To be recorded at all, a violent incident must be plausible and credible. It must be directed against human or human-like beings, and it must hurt or kill or threaten to do so as part of the script's plot. No idle threats, verbal abuse, or gestures without credible violent consequences are included. However, once an unmistakably violent incident is observed, it is recorded whether the script calls for murder or "natural" catastrophies or "accidents". (The latter are very rare but, in fiction, neither "natural" or "accidental".) "Accidents" written into scripts victimize characters who fall prey to them, and the message of victimization is one significant aspect of exposure to violence.

Violence in a realistic or "serious" context is recorded along with violence in a fantasy of "humorous" context (although the tone of the incident is coded separately so that trends can be tabulated and examined both separately and together). The reason for coding clear-cut violence in any context is that the social lessons of such violence may be demonstrated (and learned) in any context. There is evidence (1, 2, 3, 44 and 22) to suggest, for example, that exposure to fantasy or "humorous" violence is effective in conveying some lessons of violence. Therefore, its exclusion, as that of "accidents" and "catastrophies," would be scientifically unacceptable.

Observations are recorded in three types of units: the program as a whole, each specific violent action (if any) in the program, and each dramatic character appearing in the program.

"Program" means a single fictional story presented in dramatic form. This may be a play produced for television, a feature film telecast during the period of the study, or a cartoon story (of which there may be one or more in a single program). Each of these would be analyzed separately and recorded as a "program"; thus the basic unit is actually the play. All such programs telecast during the study periods were analyzed whether or not they contained violence.

Violent Action means a scene of some violence confined to the same parties. If a scene is interrupted (by flashback, or shift to another scene) but continues in "real time," it is still the same act. However if a new agent of violence enters the scene, that begins another act. These units are also called violent episodes.

Characters analyzed in all programs (whether violent or not) are of two types. Major characters are the principal roles essential to the story. Minor characters (subjected to a less detailed analysis) are all other speaking roles. The findings summarized in this report include the analysis of major characters only.

Because nationallly distributed programs provide the most broadly shared television fare, network dramatic programs transmitted in evening prime-time (8 p.m. to 11 p.m. each day), and network children's dramatic programs transmitted weekend mornings (Saturday and Sunday between 8 a.m. and 2 p.m.) comprise the analytical source material.[1]

Our sample of programs is videotaped and consists of all dramatic programs broadcast during one week, usually in the fall, of each year.[2] Several sampling experiments have been conducted during the course of this research indicating the stability of a one-week sample. The present

analysis conbimes some of the yearly sample to simplify the presentation of allarge amount of information. Data from the 1967 and 1968 fall seasons have been combined, as were data from the fall of 1969 and 1970. Data from the fall of 1971, 1972, and 1973 are reported separately. The fall 1974 and the spring 1975 samples have been combined to reflect findings for the 1974-75 television season, and similarly, data from fall 1975 and spring 1976 are presented together and represent the 1975-1976 season. Data from the fall of 1976 and 1977 are reported separately.

For the analysis of each sample of programs, a staff of between 16 and 20 coders is recruited.

After about three weeks of training and testing coders analyze the season's videotaped program sample. During both the training and data-collection phases, coders work in independent pairs and monitor their assigned videotapes programs as often as necessary. All programs in the sample are coded by two separate coder-pairs to provide double-coded data for reliability comparisons. Final measures, computed on the study's entire corpus of double-coded data, determine the acceptability of information for analysis and provide guidelines to its interpretation. (20, 21)

The Violence Index is composed of three sets of direct observational data. They show the extent to which violence occurred at all in the program samples, the frequency and rate of violent episodes, and the number of roles called for characterization as violents, victims,

or both. These data sets are called prevalence, rate, and role, respectively.

Prevalence: The percent of programs containing any violence indicates the prevalence (as compared to frequency or rate) of violence in a particular program sample. Prevalence is calculated both as percent of programs (%P) and as percent of program hours containing violence, but only %P is included in the Index.

Rate: As measures of prevalence indicate the proportion of program units in which one or more acts of violence occur, so rate expresses the frequency of these acts in units of programming and in units of time. The acts themselves are called "violent episodes" and defined as scenes of some violence confined to the same characters. The number of such episodes divided by the total number of programs (violent or not) yields the rate per program (R/P). The rate per hour (R/H) is the number of episodes divided by the number of program hours in the sample. The latter measures the concentration or saturation of violence in time, and conpensates for the difference in rates between a long program unit, such as a movie, and a short one, such as a 10-minute cartoon.

Role: The portrayal of characters as violents (committing violence) or victims (subjected to violence), or both, yields several measures. They are: percent of violents out of all characters in a sample; percent of victims out of all characters in a sample; all those involved as violents or as victims or both (%V); percent of killers (those committing fatal violence); percent of killed (victims of lethal violence); and all those involved in killing, either as killers or as killed (%K).

The Index. Findings from these data sets are combined to form an Index. The Index itself is not a statistical finding but serves to illustrate trends and to facilitate gross comparisons.

Prevalence (%P), rate per program (R/P), and rate per hour (R/H) are reflected in the program score (PS) which is computed as: PS = (%P) + 2(R/P) + 2(R/H). In the formula, %P is the percent of programs containing violence R/P is the rate of violent episodes per play, and R/H is the rate per hour.

Roles involving characters in any violence, weighted by roles involved in killing, are expressed in the character score (CS). The formula -- CS = (%V) + (%K) -- represents the percent of all leading characters committing violence, suffering violence, or both (%V), with added weight given to the percent of those involved in killing either as killers or as fatal victims, or both (%K).

The Violence Index is obtained by adding the program score to the character score. Prevalence, rate, and role are thus reflected in the Index, giving it a multidimensional quality sensitive to a variety of measures of violent portrayals and lending it a certain stability not easily altered or manipulated by simple script alterations. The prevalence, rate of incidence, and character involvement in violence all have to change in the same direction to register a substantial change in the Index.

> The present analysis indicates that the amount of violence in network dramatic programming has decreased almost across the board in the fall 1977 television season.

With each of its components showing a decline, the 1977 Violence Index was close to the record low of the 1973 season. However, violence still appeared in more than two-thirds of all prime-time programs and in nine out of ten weekend morning programs at the rate of five incidents and 16 incidents per hour respectively. The "family viewing hour" lost its restraining power, with violence rising between 8 and 9 p.m. EST on both NBC and CBS. Movies sampled were also more violent. Although ABC snatched the distinction of being "the least violent network" from CBS, the margins were the smallest in years.

Figure 1 shows the Violence Index and its components from 1967 through the fall of 1977. After a steady, seven-year decline to a record low in 1973, the Index rose to its 1976 peak and then plunged in 1977 to its second lowest point. The individual components of the Index reflect this trend, showing that the level of violence remains the same whether it is measured by prevalence, rate of incidents per program, or percentage of major characters involved in violence.

The percentage of programs containing some violence has usually ranged from 80 to 90 percent; last season it was 75.5 percent. The rate of violent episodes per hour rose to a record high of 9.5 in 1976; last year it dropped to 6.7 episodes per hour. The same rate per program (play) fell from 1976 peak of 6.2 to last season's 5.0.

Figure 2 charts violence in the time periods and types of programs included in this analysis. Children's (weekend morning) programming was still the most violent. Although violence in the 8 to 9 p.m. EST "family viewing" time slot dropped briefly in the 1975-76 season, the amount of violence in late evening programming increased sharply in

that period. Violence was not reduced in late evening programming (9 to 11 p,m. EST) until last season. Violence across different program types -- including new programs -- reflected these trends. Overall, prime-time comic-tone programs were less violent than other types of programs.

Figure 3 records the level of violence on each network. For the first time since 1973, ABC is the "least violent" network, CBS a close second, and NBC the "most violent" overall, as it has been for nine of the last eleven years. However, the differences are slight compared to previous years. While CBS, a leader in the "family viewing" concept, increased violence in "family hour" (8 to 9 p.m. EST) programs for the second year in a row, all of the networks, but especially NBC, reduced the level of violence in late evening (9 to 11 p.m. EST) and cartoon programming.

> Although the Violence Index has received the most publicity, it is probably the least significant part of the Profile.

Violence is not a simple one-dimensional act whose frequency alone can lead to meaningful conclusions. It is a complex social scenario involving victims as well as violents and the ability and power of different social types to perpetrate violence on others. The scenario is basically a dramatic demonstration of the power to inflict and the propensity to absorb violent punishment whose patterns may well cultivate different lessons for all, and perhaps also for different groups

of viewers. Among these lessons may be those of victimization and ways to avoid as well as to commit violence; caution and prudence as well as pugnacity; a calculus of one's risks as well as of opportunities in being involved in violence; a sense of relative strengths and weaknesses in conflict situations; a tendency to assume and acquiesce in as well as to imitate types and levels of violence; and a sense of fear and need for protection as well as of aggression. Any and all of these lessons may well come from realistic, fantasy, serious, comic or any other context, and from "accidental" or "natural" as well as purposefully contrived violence written into dramatic scripts.

As a scenario of social relationships and power, the pattern, rather than sheer frequency, is the essential feature of portrayals of violence. And, as we have just seen, we are looking at features of aggregate patterns implicit in hundreds and thousands of violent incidents generated at the average rate of 6 to 10 per hour of programming, not those of a few outstanding dramas telecast once or twice a year. Our type of analysis is only suitable for the investigation of mass-produced aggregates exhibiting features of a wholesale production process rather than to the analysis of individually crafted single works of drama.

The principal question involved in these aggregate patterns of relative power are questions of distribution rather than numbers. Are they equitable or do they impose greater burdens on some groups than on others? What structures of power, what pecking orders of fictional society do they demonstrate? And, finally, what lessons may stem from exposure to these patterns?

To shall

We shall report the findings that pertain to these questions in t two parts. First we deal with our indices of relative power that aggregate portrayals of television violence demonstrate. Then we shall report the findings of our Cultivation Analysis suggesting some lessons associated with exposure to the television portrayals.

> Indices of power are expressed in terms of chances of chances of involvement and the balance of risks and of in some kind of hurting and/or killing.

"Involvement" occurs in a scene of overt physical force. There is clear hurting or killing or compelling of action on credible pain of hurting or killing. An "involved" character may commit or suffer violence, or both. The choice is written into the script as a form of characterization and plot element.

Hurting and killing represent different symbolic (and, we might add, human) functions. Hurting controls behavior (typically against the injured party's will); killing terminates the part. Therefore, while hurting usually signifies contest, killing typically signals fate. Dramatic contest and fate both demonstrate the encounter of different human types and the causes they embody.

Popular drama typically comes to a satisfying (happy) ending with regard to threats to established values and powers. Therefore, as we shall see later, heroes may be hurt even more than villains (hence the threat or provocation); but the ultimate balance of fate usually favors the good, the just, and -- as social order is seen as finally good and

just -- the strong.

"Involvement" then means, by and large, entry into the arena of power in the world of television. Involvement in any violence is the ring, involvement in killing the inner circle of contesting powers.

"Risk ratio," on the other hand, signifies the chances for positive or negative outcome. It indicates the burden of risk with which each dramatic and social type enters the arena. The violent-victim ratio denotes chances or victimization in general. The killer-killed ratio marks risk of fatal victimization. They are obtained by dividing the more numerous of these two roles (violents-victims or killers-killed) by the less numerous within each dramatic and social category.

The last note deserved further emphasis. The world of television is not populated by ecological but by social symbolic forces. Representation in a particular group of that population is already a result of the interplay of those forces. For example, the fact that in television drama males outnumber females 3 to 1 is itself an aspect of the functions of differential sex role depiction. Therefore, it cannot be taken as an equal or "natural" basis from which to look at violence or any other aspect of characterization. For example, if all character types were equally likely to get involved in violence, the frequency of women's involvement would be one-third because their number if one-third of the number of men. Therefore, if women have the same change to get involved as men, that fact must be represented as a percentage, taking all women as the base for percentaging. Similarly, chances of victimization for each social group must be seen as related to chances of inflicting violence by the same group.

Controlling for representation in the dramatic population also has a relationship to the cultivation of real-life conceptions. I may watch all kinds of characters to assess risk of involvement in general; but when I apply that generalized risk to myself, I may be particularly receptive to the lessons I may learn from seeing how characters like me (male or female, young or old, black or white, etc.) fare in the world of television. Independently of how often they get involved, if most of the time they do get hurt or killed, I may well derive from that a lesson of high risk regardless of the frequency of the portrayal.

Involvement in violence and in killing may range, then, from 0 to 100 percent of a particular group. Risk ratios are obtained by dividing the more numerous of these two roles by the less numerous within each group. A plus sign indicates more violents and killers, a minus sign more victims and killed. A ratio of 1.00 means that they are even; a ratio of 0.00 means that there is none. When there are only violents or only killers shown, the ratio will read +0.00. Conversely, when there are only victims or only killed, the ratio will read -0.00. Involvement numbers, percentages, ratios, and rank-orders are presented in Tables 1 through 6.

We shall first discuss involvement and risk for all characters and for each dramatic and social group and then we shall look at the overall "pecking order" of society in the world of television drama.

More than six out of ten (63.2 percent) of all 3651 major characters studied from 1969 through 1977 were involved in some violence. The per-

centage involved ranged from 56 to 75 percent over the years, the highest being in 1976. Involvement in killing was an average of 8.7 percent. It ranged between 12.9 percent in 1974-75 and 5.3 percent in 1977.

The outcome of involvement is generally negative. Victims outnumber violents by a ratio of -1.19, i.e., for every violent, there are 1.19 victims. The violent-victim ratio ranged from -1.40 in 1973 to -1.06 in 1977, suggesting persistently negative but perhaps lessening risks of general victimization. That negative ratio suggests, we we shall see, that the fear of victimization may be the most pervasive correlate of exposure to violence.

While almost anyone can (and most do) get hurt in the world of television, the risks of getting killed are more "positively" skewed. Killers outnumber killed by a ratio of +1.92. The killer-killed ratio ranged from a low of +1.59 in 1969-70 to a high of +3.00 in1977. The stability of both involvement scores and risk ratios over the years suggests that power structure is not easily altered by shifting styles and types of programming.

The allocation or resources, values, and life-chances is both an outcome and indicator of the exercise of powers. Through its functional "distortions" of some facts of real life, television presents allocations of chances and of risks that are most likely to preserve and enhance a traditional structure of power. We shall examine these allocations by sex role, age, marital status, class, race, nationality, and dramatic types.

Sex roles. In general, more men enter the arena of violent contest but women carry greater risks of victimization. Nearly seven men but

fewer than five women out of every 10 in each group are involved in some violence. While men's risks are -1.19, women's are -1.27.

Involved in some killing are 10.3 percent of men and 4.3 percent of women. But while male killers outnumber males killed by a ratio of +2.04, female killers outnumber females killed only by a ratio of +1.17. Even more striking, however, are the differences in life chances and risks when we combine sex with other role characteristics.

A Age, sex, and marital status. In general, more of the young get battered but more of the old get killed. Being a woman reduces the odds of involvement but boosts the risks of victimization. The figures of Table 1 tell the story.

Children and adolescents of both sexes are heavily involved in violence and absorb considerable punishment. But as they age, their chances diverge.

Young boys are the most likely to be victimized rather than commit violence of any male age category of the television population. However, although seldom involved in killing, when involved they are the most lethal of all age group; boy killers outnumber boys killed 4 to 1.

With increasing age, the males's risk of general victimization declines. Old men have the most benign (and only positive) victimization ratio of all age groups.

Young boys get hurt a lot and old men do a lot of hurting. The contest of young and old men favors the old -- until it becomes lethal. Then, just as boys are the most likely killers, the old tend to end up killed. With a kill ratio of -2.00, old men are near the bottom of the heap in fatal victimization.

For women, increasing age means increasing risks of both being hurt and being killed. Young (and generally unmarried) women have an even higher victimization ratio than boys do. Old women, unlike old men, are three times as likely to get hurt as to hurt others. When old women are cast in parts than involve killing at all, the role calls for them to get killed but (in our 9-year sample) never to kill.

The exception to the female age-risk pattern is "settled adulthood" that includes the largest proportion of married women. The "settled adult" woman is the "safest" of all female categories. A pattern of power trade-off can be seen in Table 2 which presents risk by marital status. Both married men and married women are less likely to get involved in violence than those not married. However, married males take on higher risks while females gain some security when married. Marriage seems a contract that protects women, at least for a while; eventually they suffer a high rate of fatal victimization.

Class. Class distinctions offer no protection. (See Table 3) It is dangerous to be a member of any but the large, indistinct and middle class characters. Clearly recognizable upper class characters get most involved in killing. Middle class characters do the most killing. Lower class characters are most likely to be killed.

Women are less likely to be involved than men but stand a higher chance of victimization when involved. Lower class women are second only to lower class men in their risks of getting killed relative to their own lethal activity.

Race. To be other than clearly white is similarly risky. As can be seen on Table 4, characters coded "other" (not including those who

could not be coded for race) have a higher ratio of victimization and lower ratio of killing than whites.

Women fare worse, as usual, except that no non-white woman in our sample was shown as involved in any killing.

Nationality. To be of a distinct nationality, as of a class or race other than the majority, is to assume special burdens of involvement and victimization. Foreign women, however, are more likely to be killers than either U.S. women or foreign men -- but seem to pay for it by the highest rate of overall victimization among all sex and nationality groups (See Table 5).

Character type. The conflict of good and evil is the explicit message of popular drama. The upbeat ending of characters getting their just deserts makes the underlying power play appear to be the fair or "natural" workings of an orderly universe. That is the power of popular fiction: to invent a world in which things work out as the story-tellers want them.

"Bad" characters get most involved in violence and killing. "Good" characters (especially women) absorb the most punishment relatively to their inflicting it on others. But "good" males are also the most likely to dish it out in the end; they have the highest kill ratio of all characters.

"Bad" males run a lower risk of being battered than the "good" but a higher risk of being killed. However, among females, it is the "good" woman who bears the highest burden of both fatal and other kinds of victimization. By contrast, the "bad" woman is the most likely to get away with both general violence and murder. It is as if an underlying scenario would call for evil women to provide provocation (and perhaps

justification) for the high degree of punishment most women absorb, while "good" women are the mostlikely to be cast in the role of sympathetic (or just pathetic) victims rousing the hero to righteous, (if often lethal, indignation.

The

The chances of involvement and ratios of violents to victims and killers to killed define the pecking order of television society.

The most involved in violence are the "bad", foreign, and lower class men, and the "bad", lower class, and unmarried women. The least involved of both sexes are the old, married, and nonwhite characters.

If and when involved, however, the ratio of risks indicates different life chances. The only two types of characters who inflict more violence than they absorb are "bad" women and old men. Next in the order of relative safety are "bad" men and "settled" and married women. Married males, as we have seen, run greater risks, but U.S. nationality and white men are among the top five relatively successful violents.

Lowest in the general pecking order are old women, nonwhite women, upper and lower class women, and young women. More favored than all of these, but the most victimizedd among males, are children and adolescent boys. Next lowest on the victimization scale are foreign and "good" and unmarried women.

Most likely to kill rather than to be killed are "good" men; children and adolescent boys; U.S., settled adult, and white males; and young and unmarried men. The foreign female is the most lethal of her sex, followed by the "bad" woman.

her sex, followed by the "bad" woman.

Most likely to be killed rather than to kill are old women, old men, "good" women, lower class and nonwhite of both sexes, and female children and adolescents.

The pattern of power, then, shows that "bad" women and old men get away with the most mayhem and "good" men, boys, and most other types of males get away with the most killing. At the bottom of the pecking order are old and most other categories of women, including "good" women, and characters otherthan middle class, American, and white.

Television thus presents a world in which the balance of power is couched, and often obscured, in moral terms. It is a world in which evil provokes the "good" to terrorize the weak.

> Cultivation Analysis is the study of what is usually called effects or impact.

We consider the latter terms inappropriate to the study of broad cultural influences. The "effects" of a pervasive medium upon the composition and structure of the symbolic environment are subtle, complex and mingled with other influences. Also, the concept of causation, borrowed from simpler experimental studies in the physical and biological sciences, is not fully applicable to the steady flow of images and messages that make up much of contemporary popular culture.

People are born into a culture that cultivates their needs as well as their satisfactions. Cultural effects assumptions about facts as

well as responses to facts. In modern cultures demand is manufactured, as well as the supply. Social and psychological characteristics draw individuals to select certain types of content which, in turn, nourish and cultivate those characteristics. Innumerable facts (and values) outside of personal experience can only be learned -- and related values derived -- from the mass media or from others who have learned them from the mass media. Increasingly, media-cultivated facts and values become standards by which we judge personal experiences and family and community behavior.

A slight but pervasive shift in the cultivation of common perspectives may not change much in personal outlook and behavior but may change the relative meaning of common behavior. Just as a barely perceptible change of a few degrees average temperature can lead to an Ice Age or make the desert bloom, so a slight but pervasive change in the cultural climate can have major social and public policy consequences. The closer a vote, a decision, a public policy issue, the smaller the shift needed for change, and the more rigid the forces of stability might be. That is whywwe prefer to speak of the contribution of television to the cultivation of common perspectives rather than of its achieving any specific or preconceived goals, impact, or effects.

Cultivation Analysis begins with the patterns found in the "world" of television drama. The message system composing that world presents a coherent image of life and society. How is this image reflected in the assumptions and values held by its audiences? How are the "lessons" of symbolic behavior presented in fictional forms applied to conceptions about real life?

These days nearly everyone "lives" to some extent in the world of television (16), so that the problem of studying television's effects is a difficult one. Without control groups of non-viewers it is hard to isolate television's impact. Experiments do not solve the problem, for they are not comparable to people's day-to-day viewing of television. Our approach reflects the hypothesis that heavier viewers of television -- those exposed to a greater extent than lighter viewers to its messages -- are more likely to understand social reality in terms of the "facts of life" they see on television. To investgate this idea we partition the population and our samples according to television exposure. By contrasting light and heavy viewers, some of the "difference" television makes in people's conception of social reality can be examined.

Naturally, we are aware that factors other than television viewing may account for some of these differences. Since we have found, as have others, that heavy television viewing is part and parcel of a complex syndrome which also includes lower education, lower mobility, lower aspirations, higher anxieties and other class, age and sex-related characteristics, our analyses are designed to statistically control for these and other demographic and descriptive variables. That means that we attempt to hold these characteristics constant while comparing responses of heavy and light viewers in relatively homogeneous groups. For example, college educated respondents may give different answers from the non-college respondents. Therefore, we examine heavy and light viewers respondents <u>within</u> the college and non-college groups as well as between them.

> The investigation of television's effects upon conceptions of social reality begins with systematic analysis of the world of television drama.

Message System Analysis reveals how certain "facts" and aspects of social reality are presented in television drama; these "facts" are then compared with other conceptions of the same "facts" and aspects derived from direct and independent observations, such as U.S. Census figures. For example, in prime-time television drama aired from1969 through 1977, 64 percent of major characters and 30 percent of all ch characters (major and minor[3]) were involved in violence as either perpetrators or victims or both. According to the 1970 Census, there were only .32 violent crimes per 100 persons.[4] In the world of television, therefore, one has between a 30 and 64 percent chance of being involved in violence, but, in the real world, only a one-third of one percent chance.

Next, we determine what heavy and light viewers (both children and adults) believe to be the facts. To the extent that patterns of life presented in dramatic television programs cultivate distinct conceptions of social reality, heavy viewers are expected to be more likely than light viewers tochoose answers that reflect television perspectives. Our research strategy, instrumentation, and samples are designed to establish the extent to which and the ways in which television cultivates such patterned responses.

Once the "television view" and the "real world" or some other view of selected facts and aspects of social reality have been determined,

we construct questions dealing with these facts and aspects of life. Each question has an inferred or objectively determined "television response" reflecting the "television view" of the facts as well as a "non-television answer." For example, one cultivation question asks: "During any given week, what are your chances of being involved in some kind of violence? About one in ten? About one in a hundred?" The first answer -- "about one in ten" -- more closely reflects the world of television and is used as the "television answer," while the "one in a hundred" more closely matches U.S. Census data and reflects the real-life circumstances or most Americans.

To test our hypothesis we continually gather data reflecting television viewers' beliefs and behaviors. These data have been collected from samples diverse in characteristics such as age, location, and institutional affiliation.[5] Within each sample, television viewers' responses are further analyzed in terms of age, education, sex, and other social and personal characteristics. Our policy is to administer the same questions repeatedly to various samples, including both children and adults, whenever possible.[6]

> Cultivation Analysis over the past five years reveals a consistent and significant relationship between television exposure and many aspects of social reality.

Two such aspects seem to be particularly salient to this report and are, therefore, included in the Violence Profile. They are (1)

perceived danger, and (2) mistrust and alienation.

Previous Violence Profiles (10) have reported that more heavy viewers tend to respond in terms of the world of television than do light viewers in the same demographic groups. When asked about chances of encountering violence, about the percentages of men employed in law enforcement and crime detection, and about the percentage of crimes that are violent, significantly more heavy viewers than light viewers respond in terms more characteristics of the television world than of the real world. Mistrust is reflected in responses suggesting that heavy viewers believe that most people just look out for themselves, take advantage of others, and cannot be trusted. These relationships usually cannot be explained by social or personal characteristics, although these characteristics make important contributions to baseline levels of criterion variables and to differences in the strength and intensity of television's apparent role in cultivating certain assumptions.

The current results extend these findings. Two samples of school children were asked: (23)

> How often is it all right to hit someone if you are mad at them? Is it almost always all right, or almost never all right?

Table A shows that heavier viewers of television more than lighter viewers respond that it is "almost always all right" to hit someone. This relationship was found to be particularly strong among girls in the surburban/rural (New Jersey) school. Light-viewing girls were very unlikely to respond that it is all right to hit someone, while heavy-viewing girls were as likely as the boys to give this answer. Both

boys and girls in the urban private school (Bank Street) were less likely than those in the first school to agree that it is all right to hit someone, but heavier viewers were more likely than lighter viewers to give this response.

Respondents' fear of walking in the city or in their own neighborhood at night was studied among New Jersey child viewers and in the 1976 Election Study and the 1977 NORC General Social Survey. Generally, the question is:

> Would you be afraid to walk in the city (or, around here) at night? Yes, no.

Table 8 shows that among the school children, heavy viewers more than light viewers respond that they would be afraid to walk alone in a city at night. The relationship is particularly strong among boys, while for lighter as well as heavier viewers express this fear. There is a slight tendency among the adults for heavy viewers more than light viewers to respond with fear of walking alone at night, but this relationship is weak compared to the strong association between heavier viewing and fear among the children.

In our most recent secondary analysis, four[7] of a series of five items reflecting crime-defensive behavior of adult respondents were analyzed in relation to viewing crime and police television programs. The 1976 Election Study respondents were asked:

> Now we would like to ask you how crime affects you personally. Some people find it necessary to take certain precautions in order to be safe from crime. Please tell me if you've done any of the following things to protect yourself against crime:

-- bought a dog for purposes of protection;

-- put new locks on windows or doors for purposes of protection;

-- kept a gun for purposes of protection;

-- stayed away from certain areas in a town or city for purposes of protection.

Table 8 shows that heavy viewers take more precautionary measures than light viewers. Those who report that they "frequently" watch evening police and crime programs also report that they have obtained dogs, guns and locks for purposes of protection in greater proportions than those respondents who "sometimes" or "rarely"/"never" watch crime and police programs.

The response dimension "mistrust and alienation" has been measured by existing indicators that have been tested and constructed by other researchers. Beginning with our secondary analysis of the NORC General Social Survey data, three of Rosenberg's (1957) (27) "faith in people" index items have been used. These items were administered to two samples of school children and two groups at the University of Pennsylvania, and were analyzed among respondents in the 1976 Election Study. We have reported before (10) that heavy viewers of television are significantly more likely than light viewers to say that "you can't be too careful in dealing with people", and that people will take advantage of others if they get the chance.

We have extended these analyses by investigating the relationship between television viewing and responses to three items reflecting "anomie" (29). Respondents in the 1977 NORC General Social Survey were asked:

> In spite of what some people say, the lot of the average man is getting worse, not better. Agree, disagree.
>
> Its' hardly fair to bring a child into the world with the way things look for the future. Agree, disagree.
>
> Most public officials are not really interested in the problems of the average man. Agree, disagree.

Table 10 shows that on all three measures of anomie, heavy viewers are more likely than light viewers to respond that it would be best to stay out of world affairs. This relationship is particularly strong among NORC respondents in the Election Study for whom the television measure is crime and police shows reviewed.

A final note of gloom is found (18) among respondents in the 1975 NORC General Social Survey who were asked:

> Do you expect the United States to fight in another war within the next ten years? Yes, no.

Heavy viewers more than light viewers envisioned another war within the next ten years (70 percent of light viewers compared to 76 percent of heavy viewers, gamma = .14, $p \leq .01$).

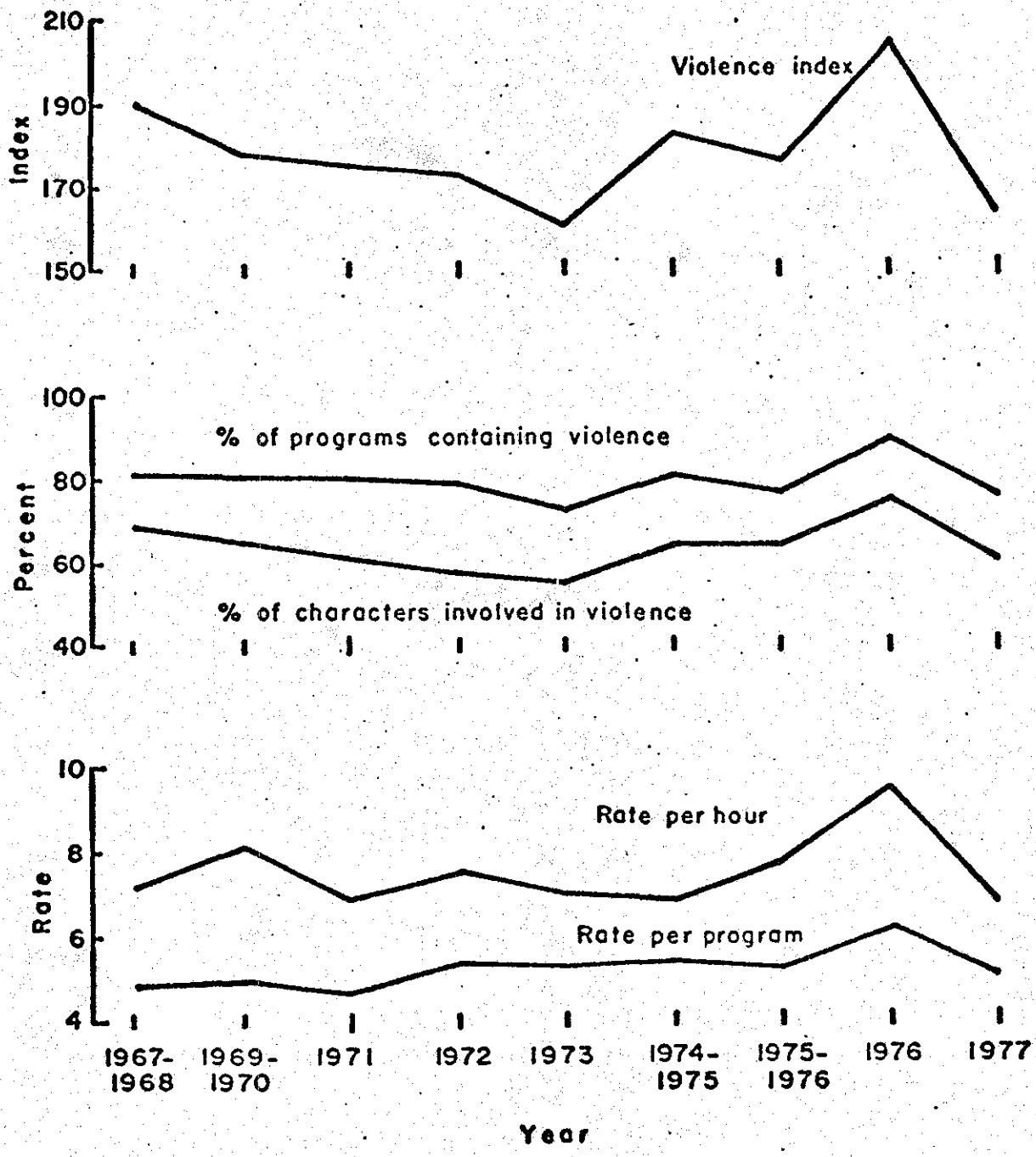
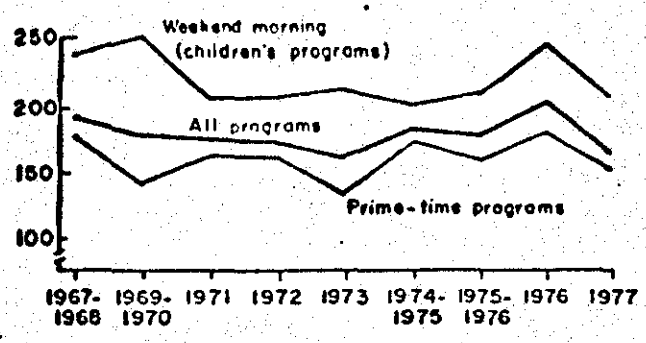
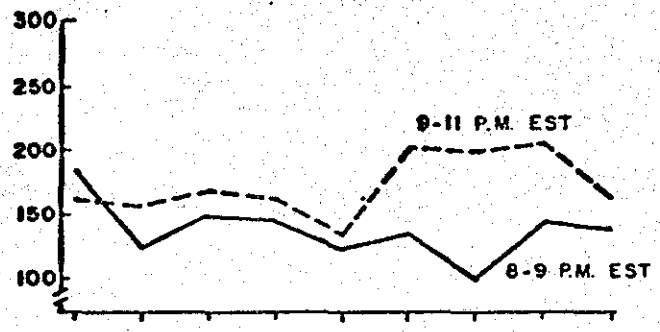
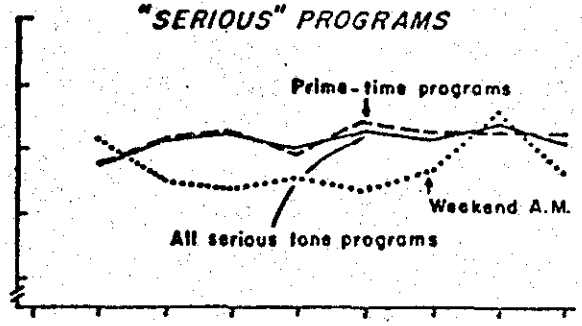
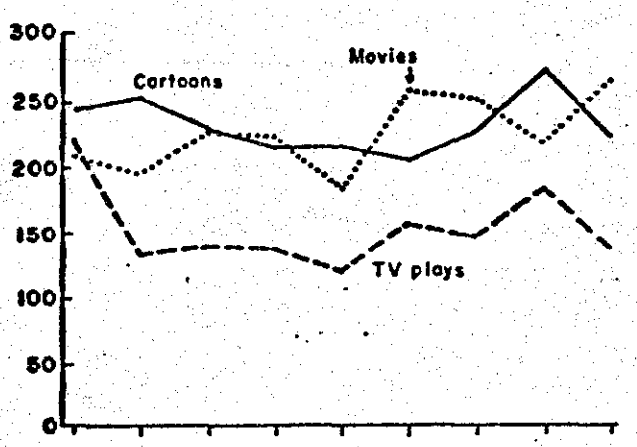


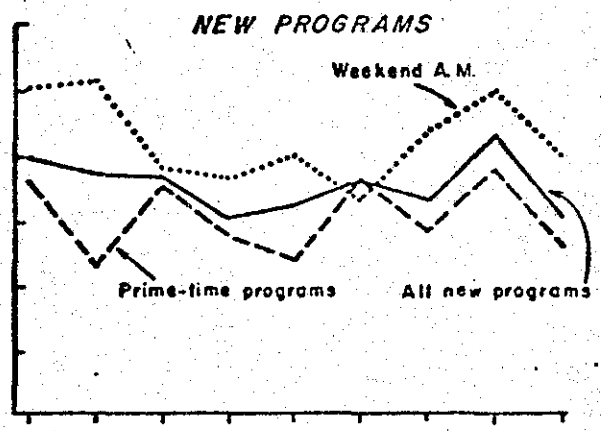
FIGURE 1: VIOLENCE INDEX AND MAJOR COMPONENTS FOR ALL PROGRAMS 1967-1977

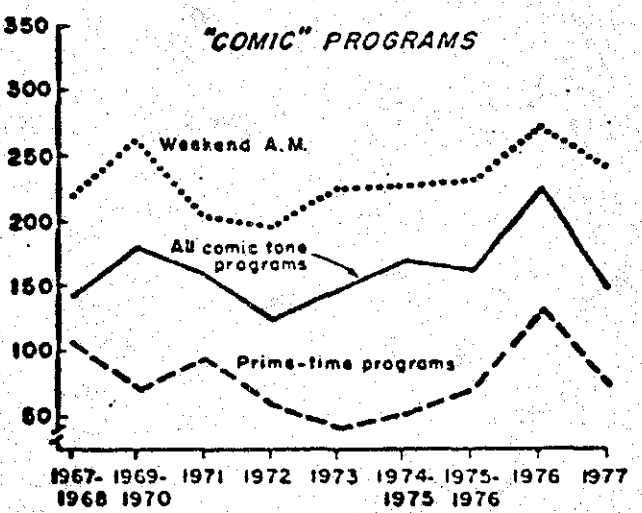












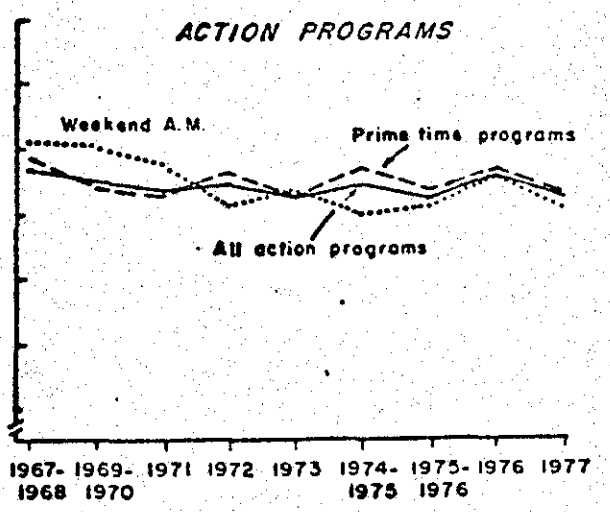
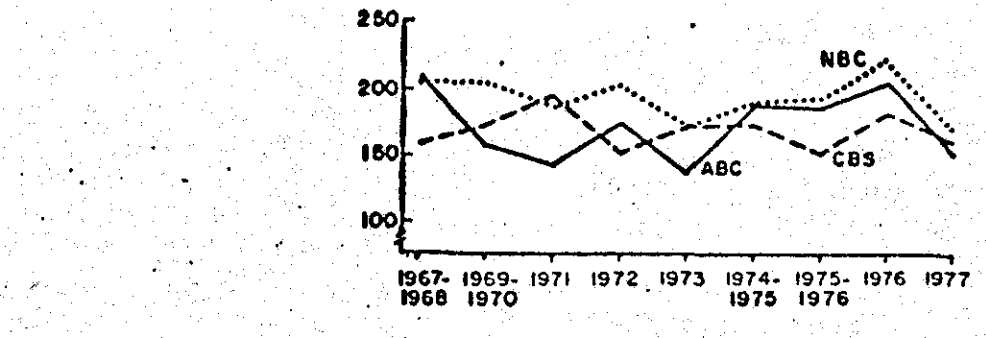
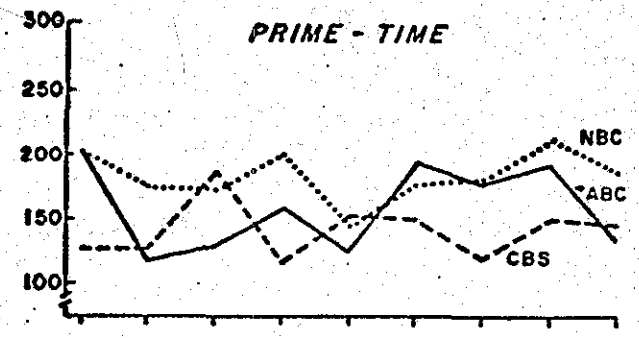
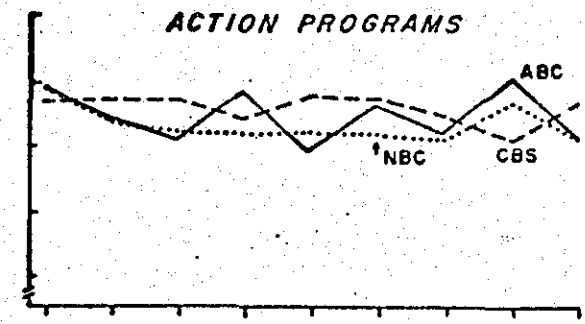
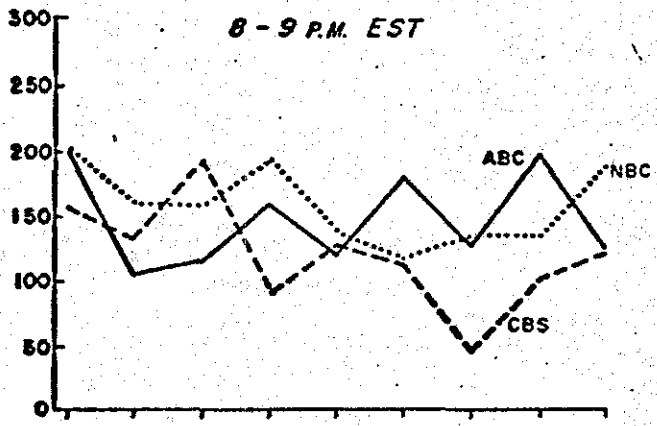


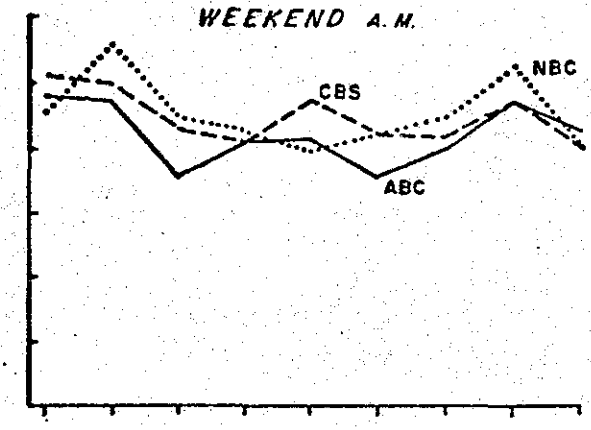
FIGURE 2: VIOLENCE INDEX FOR DIFFERENT PROGRAMS 1967-1977

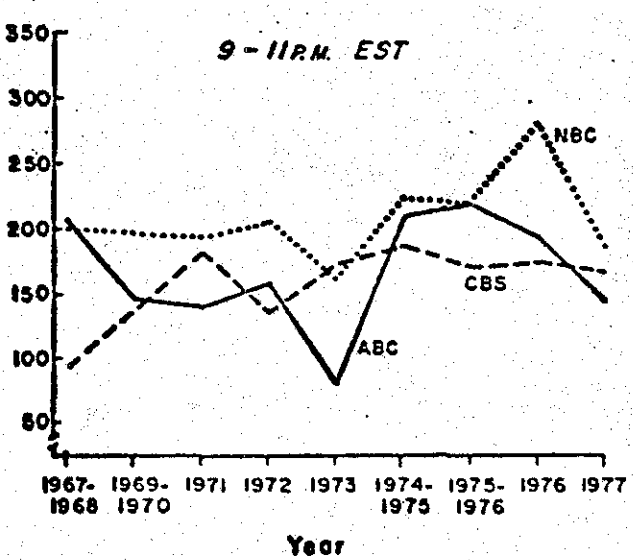












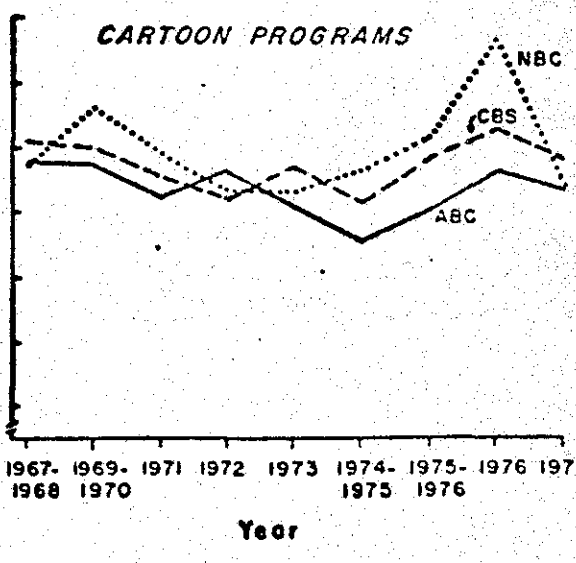


FIGURE 3: VIOLENCE INDEX BY NETWORK AND PROGRAM TYPE 1967-1977

Table 1

Risks by age and gender

	Percent involved in violence	Percent involved in killing	Ratio of violents to victims	Ratio of killers to killed
Males				
Children/ adolescents	65.5	1.4	-1.69	+4.00
Young adults	69.9	12.1	-1.23	+2.08
Settled adults	65.7	12.4	-1.12	+2.18
Elderly	48.6	6.8	+1.04	-2.00
Females				
Children/ adolescents	49.5	0.0	-1.23	0.00
Young adults	53.5	5.8	-1.73	+1.33
Settled adults	38.3	4.3	-1.07	+1.44
Elderly	36.0	8.0	-3.00	-0.00

Table 2

Risks by marital status

	Percent involved in violence	Percent involved in killing	Ratio of violents to victims	Ratio of killers to killed
Males				
Not married	69.8	9.7	-1.18	+2.06
Married	52.9	12.9	-1.26	+1.87
Females				
Not married	53.7	4.8	-1.38	+1.20
Married	31.2	4.2	-1.15	+1.14

Table 3

Risks by class

	Percent involved in violence	Percent involved in killing	Ratio of violents to victims	Ratio of killers to killed
Males				
Upper	68.4	17.0	-1.28	+1.57
Middle, mixed	68.2	9.7	-1.17	+2.23
Lower	77.0	12.0	-1.20	-1.13
Females				
Upper	43.0	10.1	-1.81	+1.25
Middle, mixed	45.0	3.5	-1.22	+1.15
Lower	54.2	8.3	-1.71	1.00

Table 4

Risks by race

	Percent involved in violence	Percent involved in killing	Ratio of violents to victims	Ratio of killers to killed
Males				
White	65.3	11.8	-1.16	+2.12
Other	61.9	10.1	-1.27	+1.83
Females				
White	46.0	4.7	-1.25	+1.24
Other	30.6	0.0	-1.82	0.00

Table 5

Risks by nationality

	Percent involved in violence	Percent involved in killing	Ratio of violents to victims	Ratio of killers to killed
Males				
U.S.	63.2	11.6	-1.16	+2.29
Other	80.8	12.8	-1.29	+1.27
Females				
U.S.	42.7	4.3	-1.31	+1.20
Other	49.2	3.3	-1.47	+2.00

Table 6

Risks by character type

	Percent involved in violence	Percent involved in killing	Ratio of violents to victims	Ratio of killers to killed
Males				
"Good"	63.7	65.6	-1.23	+4.17
Mixed	65.9	9.0	-1.21	+1.31
"Bad"	89.6	28.7	-1.03	+1.81
Females				
"Good"	41.7	1.8	-1.40	-1.50
Mixed	43.9	5.0	-1.29	+1.17
"Bad"	77.9	22.1	+1.13	+1.67

Footnotes

1 In 1967 and 1968, the hours included were 7:30 to 10 p.m. Monday through Saturday, 7 to 10 p.m. Sunday, and children's programs 8 a.m. to noon Saturday. Beginning in 1969, these hours were expanded to 11 p.m. each evening and from 8 a.m. to 2:30 p.m. Saturday and Sunday. As of 1971, however, network evening programming has been reduced by the FCC's prime-time access rule. The effective evening parameters since 1971 are therefore 8 to 11 p.m. Monday through Saturday and 7 to 11 p.m. Sunday.

2 Programs broadcast during one week in the spring of 1975 and 1976 were also videotaped and analyzed as part of our on-going research on sampling.

3 This report presents findings for major characters only.

4 Newer data on personal violent crime victimization range from .41 per 100 (based on 1973 Police reported figures which include homicide) to 3.3 per 100 persons over 12 (based on 1974 probability sample which doesn't include homicide).

5 We gratefully acknowledge the National Opinion Research Center, University of Chicago, for sharing its 1975 and 1977 General Social Surveys, and the Center for Political Studies, Institute for Social Research, University of Michigan, for its 1976 American National

Election Study disseminated through the Inter-University Consortium for Political and Social Research.

[6] A complete description of the samples may be found in George Gerbner, Larry Gross, Marilyn Jackson-Beeck, Suzanne Jeffries-Fox, and Nancy Signorielli, "Violence Profile No. 9: Trends in Network Television Drama and Viewer Conceptions of Social Reality, 1967-1977", the Annenberg School of Communications, University of Pennsylvania, March, 1978.

[7] A fifth item, installation of alarm systems, was analyzed but not included here because the small number of respondents who had purchased alarm systems (N=110) made cross-tabular analysis impossible.

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