AGING WITH TELEVISION
Images on Television Drama and Conceptions of Social Reality

The final report of a research project conducted under grant No. 90-A-1299 from the Administration on Aging, Office of Human Development, Department of Health, Education and Welfare.

by

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Old Age: TV Tells It Wrong

By Michael Kernan

Older people are so badly shortchanged in TV drama that viewers actually believe they are disappearing from the scene — though in real life they are inceasing.

Television's gross distortion of some basic facts about American life has been documented by a two-year project at the Annenberg School of Communications, part of the University of Pennsylvania, on a $200,000 federal grant.

Heavy-duty watchers—the ones on the high side of the national average of 30 hours a week—also believe that old age comes earlier in life, especially to women.

Nearly 70 specialists in education, aging and communications tossed around some possible responses to the bleak picture presented by George Gerbner and some colleagues from Annenberg yesterday at the Hyatt Regency.

The saddest thing, Gerbner noted, is that "the best and possibly only time to learn about growing old with decency and grace is in youth ... Images of old age we absorb throughout life cultivate our concept of aging." And television, especially network drama, is telling it wrong.

Curiously for this youth-worshiping country, TV also grossly underrepresents children and adolescents, Gerbner said.

Some findings from the 10-year study of 1,365 programs and 16,688 characters:

•Characters under 18 make up only 8 percent of the fictional population. In reality they are 30 percent of the American population. The over-65s, actually constituting 11 percent of Americans, appear to be hardly more than 2 percent of the TV population. In other words, a viewer meeting more than 300 speaking characters in a week will be exposed to only seven over 65.

•Furthermore, the older people are shown as eccentric, stubborn, nonsexual, ineffectual and often silly. Old men are likely to possess power for evil and accordingly must die, by TV's simple code. Old women have no such powers and usually wind up as victims, especially to the violence that occurs in almost 80 percent of prime-time and children's programs.

•In TV's "compelling, vivid, translucent world," men outnumber women by three to one. Fantasyland, indeed.

•Women are valued only under 35, while men, the wielders of authority, thrive in the 35-44 age bracket. "The character population is structured to provide a relative abundance of younger women for older men," but not vice versa.

• In children's programs, people of their parents' age group (25-35) are all but invisible. The grandparental age group is also extremely sparse.

But it is the older people who suffer most on TV, and it is the older nonwhites and women who get the worst of it. Respectful, serious treatment of the elderly, and women of all ages, is less likely than otherwise, observed researcher Nancy Signorielli. The older are apt to have more negative qualities, to be married but to have no romantic interest, to be less successful, attractive or happy. With exceptions, of course.

"Marriage," the report adds, "at least in the television world, is practically devoid of romance and is the domain of older people."

One interesting aspect of this consistent skewing of truth is the TV watchers' notions about crime. In TV's world, three out of 10 older people are apt to be robbed or beaten. (The real figure is less than one percent—less than the rate for other age groups.) A special survey of heavy watchers indicated that TV cultivates fear and a sense of danger, leading them to believe they may be mugged or attacked at any time, that even walking at night in their own neighborhood is "not safe at all."

"Heavy viewers in greater proportion than light viewers appear to generalize from observation of television's message system to real life situations, despite facts to the contrary and despite the fictional nature of most TV."

Solutions were discussed only in a general sense, but they seemed to boil down to counterpromotion, alternative TV such as cable and cassette, pressure on licensing agencies.

Rep. Marc Lincoln Marks (R-Pa.) suggested organizing campaigns against offending local stations and promoting minority stations. He noted that since programs are essentially bait used by advertisers, who concentrate on the profitable 18-to-49-year-old market, an effort could be made to interest advertisers in the $60 billion market represented by older people.

Fiction, he reminded the audience, disarms its critics. Theater makes lies appear harmless, even noble, while all the time transmitting and preserving biases.

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TABLE OF CONTENTS

This is the final report of AoA grant No. 90-A-1299, "Aging with Television." For the past two years this research has been an important part of our ongoing research -- Cultural Indicators. Cultural Indicators is a multi-faceted research project that has been examining trends in television content and audience conceptions of social realty since 1969. The design consists of two interrelated procedures:(1) message system analysis -- the periodic content analysis of prime-time and weekend-daytime network dramatic programming and (2) cultivation analysis -- determining conceptions of social reality television viewing tends to cultivate in different groups of viewers.*

Three progress reports have been previously submitted. These reports used data from the existing Cultural Indicators data archives. Progress Report No. 1 focused upon the image of older characters in prime-time network dramatic programming. Report No. 2 discussed the image of the elderly in weekend-daytime (children's) programming and Report No. 3 presented some of the conceptions of social reality these images cultivate in different groups of viewers.

This final report uses existing Cultural Indicators data archives as well as data collected especially for this project. The report is divided into two sections -- one for results from the message system analysis,

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* A full description of the methodology employed in this research can be found in George Gerbner, Larry Gross, Marilyn Jackson-Beeck, Suzanne Jeffries-Fox and Nancy Signorielli, "Cultural Indicators: Violence Profile No. 9." Journal of Communication, Summer, 1978

one for cultivation analysis. Each part of the report presents the methodology and findings of the research as well as a discussion of its general significance. Where appropriate, findings from earlier progress reports are integrated into the text.

Aging is a process that starts with birth and goes on throughout life. However, life styles associated with different stages of the life cycle are roles learned in a culture.

The best time to learn about growing old with decency and grace is in youth, in the everyday social and cultural environment. Images of old age we absorb throughout life cultivate our concept of aging and of the age roles into which we are placed.

Television is the wholesale distributor of images and the mainstream of our popular culture. It is on in the average home for over 6 hours each day. It presents a world of places, people, and roles which most people experience with little selectivity or deviation an average of 30 hours a week. Network drama is where the bulk of this time and action is. It is our nation's most common, constant, and vivid learning environment.

A third of television viewing takes place between 8:00 and 11:00 p.m. each evening. During these hours, children and adults of all ages -- about 90 million each night -- gather at the set. That time is called prime time. Another viewing time of special significance is weekend daytime (8:00 a.m. to 2:00 p.m.), the children's hours. Although only about 12 percent of the viewing time of children under 7 is spent watching weekend daytime children's programs, it is a time when the audience is composed primarily of children; the industry refers to this block of programming as the "kidvid ghetto." Therefore, it is the best example

of a world television creates specifically for children.

We are thought to be a "youth culture." Yet, we underrepresent and in many ways devalue children and adolescents, as well as old people. As we shall see, culturally we treat age as a resource to be distributed as other resources are distributed -- along lines of income, status, and power.

It is difficult to understand one age group or role in isolation. Our research looks at the entire pattern of the distribution of age roles in the symbolic worlds of prime-time and weekend-daytime (children's) network television drama.

These patterns are not the creation of single individuals or groups. They are the creation of a system of broadcasting and of story-telling with deep historical, cultural, and commercial roots. It is a system which allows very few degrees of freedom. But within those few degrees, the creative workers and the executives of the industry can act -- provided they have the information upon which to act. The purpose of this report is to provide and to continue to amplify that information.

MESSAGE SYSTEM ANALYSIS

Message system analysis is designed to investigate the aggregate and collective premises defining life in representative samples of mass-produced symbolic material. This analysis rests upon the reliable determination of unambiguouly perceived elements of communications. Our data base and what we report does not reflect what a particular individual sees but what large communities absorb over long periods of time. We also do not attempt to interpret individual programs, networks or productions

nor draw conclusions about artistic merit. The analysis isolates the patterns and symbolic structures that exist in the samples. The purpose of message system analysis is to provide systematic, cumulative and objective observations of the relevant aspects of the world of television drama. The analysis and what it yields is somewhat like flying over one's own neighborhood; the territory is familiar but the patterns are different and are seen in a broader context.

Methodology

The process of message system analysis begins by selecting an annual week-long sample of prime time (8-11 p.m. EST) and weekend-daytime (8 a.m. to 2 p.m. on Saturday and Sunday) network dramatic programming. Each program in the sample is videotaped, logged and placed in the video tape archive. Each year message analysis data is generated by subjecting each program in the sample to an extensive recording instrument. In this data gathering phase of the research each program is coded by two independent pairs of highly trained observers who make detailed objective records about different aspects of program content. Each program is coded twice for the reliability analysis. The archived data used in all subsequent analyses are generated by randomly selecting one of the two independent codings used in the reliability analysis.

Over the past ten years the Cultural Indicators recording instrument has generated data on many aspects of program content. The data used in this aging-related project came from two sections of this instrument -- the program and the characters who populate the programs. These characters include those who portray roles essential to the plot (major characters) and all other characters with speaking parts (minor characters). The entire Cultural Indicators data archives contain information on 1365 programs

and 16,688 characters (see Table 1). The sample is made up of one week of prime-time and weekend-daytime dramatic network programming broadcast in the fall of each year from 1969 to 1978. Two additional samples were collected and analyzed in 1975 and 1976. These were samples of programs broadcast in the spring of each of these years and were collected and analyzed on a number of program dimensions as part of our research on sampling. Spring samples were discontinued because we found very little difference between the fall and spring samples and we have thus concluded that the one week sample of programs broadcast in the fall is adequate to reflect the basic dimensions of dramatic network programming.

This report also includes findings of the analysis of a special sample of data specifically collected as part of this research project. These data were generated by the message system analysis of 426 programs (309 in prime-time and 117 in weekend-daytime (children's programs) in the Cultural Indicators videotape archives. These programs were selected because they had at least one member of the cast who was either over 65 years of age or was categorized as an elderly character. Each of these programs was subjected to a specially designed recording instrument focusing upon the portrayal of aging and especially upon how elderly characters are portrayed. This sample included about one-third of the programs in the entire Cultural Indicators videotape archive. Moreover, the programs were just about evenly divided among each of the 11 sample weeks*.

Assessment of reliability

Reliability measures are designed to ascertain the degree to which

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*This part of the research was conducted in the spring of 1978, before the fall 1978 sample week was available for analysis. Thus, this analysis covers the years from 1969 to 1977.

the recorded data truly reflect the properties of the material being studied and not the contamination of observer bias or of instrument ambiguity. Theoretically, both types of contamination are correctable, either by refining the instrument or intensifying coder training; and as a last resort, by eliminating the unsalvageable variable or dismissing the incorrigible coder. Measures of relaibility thus serve two functions: as diagnostic tools in the confirmation of the recording process, and as final evaluators of the accuracy of a phenomenon's representation in the actual recorded data.

Our reliability assessment involves the calculation of an agreement coefficient for each content item in the recording instrument. Five computational formulae are currently available for calculating these coefficients. The variations are distinguished by a difference function, the form of which depends upon the scale type of the particular variable being analyzed. Except for their respective scale-appropriate sensitivity to deviations from perfect agreement, the coefficients make the same basic assumptions as the prototype for nominal scales devised by Scott.* Thus, in the case of the binary variable, all formulae yield identical results.**

The coefficients range from +1.00 to -1.00, where +1.00 indicates perfect agreement and .00 is agreement due solely to chance. A coefficient of .50 indicates that performance is 50% above the level expected by chance.

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*William A. Scott, "Reliability of Content Analysis: The Case Of Nominal Scale Coding," Public Opinion Quarterly, 17:3, 321-325, 1955.

**For the derivation of the formulae and discussion of their properties, see Klaus Krippendorff, "A Computer Program for Analyzing Multivariate Agreements, Version 4," Memeo, Philadelphia: University of Pennsylvania, the Annenberg School of Communications, July 1973. For a more extended discussion by the same author of part of this family of coefficients see "Bivariate Agreement Coefficients for the Reliability of Date," in E.F. Borgatta, ed., Sociological Methodology,1970, San Francisco: Jossey-Bass.

Reliability is thus ascertained by a statistical procedure that measures the agreement of trained analysts for each content item. If one were to substitute the perceptions and impressions of casual observers, no matter how sophisticated, the value of the investigation would be reduced, and its purpose confounded. Only an objective analysis of unambiguous message elements, and their separation from personal impressions left by unidentified clues, can provide the basis for isolating and understanding stable images in symbolic materials.

The agreement coefficients calculated to assess the reliability for each item used in the message analysis are presented in Table 2. These coefficients indicate the degree to which agreement among the independent pairs of observers is above chance. The minimal acceptable agreement coeficient for most of the items included in this analysis is .600. Certain items, such as the personality trait scales, however, have a minimal level of .500. Only those items meeting these minimal levels are included in the analysis.

The data

The data used in this analysis come from two sources -- existing Cultural Indicators project data archives for programs and characters coded from 1969-1978, and specially generated data from the message system analysis of the programs from 1969-1977 that had older characters in the cast.

The character data consist of eight types of content items -- demographic, descriptive, health, living arrangements, home and family, personality trait scales, personality attribute evaulation scales, and activities performed by characters. The demographic items include category schemes for sex, race, socio-economic status, employment and

chronological age. The descriptive items include category schemes to differentiate character role, character type, success, social age, committing violence and victimization. Health and living items focus upon physical and mental illness, death, and living arrangements. Home and family items include the following: marital status, performance of household duties for other characters, having children, the importance of family life and whether or not characters are romantically involved. Personality was assessed by two types of items: personality traits coded on five point bi-polar adjective scales and eight evaluation attributes, such as being treated with disrespect or pity and being portrayed as lonely, a nuisance, stubborn, eccentric, foolish, or useful. The final set of items measures characters' performance of various activities.

Analysis Procedures

The data analysis consists primarily of simple descriptive statistical techniques such as multi-dimensional cross-tabulations. Most of the analyses use character's social age and sex as the basic comparative variables.

Social age is a descriptive category scheme that serves to distinguish characters by age role. It consists of four categories -- children and adolescents, young adults (the age between adolescence and a more settled vocational and personal life and responsibilities), settled adults, and older adults (characters past the prime active years and obviously elderly). These groupings provide the basic structure of the analysis and permit the isolation and comparison of the image of men and women in different age-roles.

A second type of analysis called for the generation of personality

and attribute evaluation profiles. Personality trait profiles are the mean score on each personality trait scale and are generated for characters in each of the four social age classifications. These profiles are also separately generated for male and female characters in the four age roles. The evaluation attribute items were also measured by generating the mean scores on each scale for characters in the age-sex role groupings. The significance of differences between age-sex groups of characters on these two types of items was tested by analysis of variance or t-tests. Where possible, results are presented graphically to simplify presentation.

The third type of analytic procedure was a multi-variate statistical procedure called contingency analysis.* This procedure permits a large number of binary coded character attributes to be examined in tandem and enables the discovery of which attributes of characterization are most likely to occur at the same time. That is, the technique uncovers simultaneously occuring clusters of characterization traits.

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*A full discussion of this and similar multi-variable statistical procedures may be found in Nancy Signorielli (Tedesco), Men and Women In Television Drama: The Use of Two Multivariate Techniques for Isolating Dimensions of Characterization. (A dissertation in Communications, University of Pennsylvania, 1975)

The World of Television Drama

Information conveyed by drama and fiction differs from information conveyed by bits of fact, but plays an equally significant function. Factual descriptions construct a selective image of what things are. Drama and fiction demonstrate the invisible connections that show how things work and why.

That story-telling process is essential to human socialization, the introduction to and cultivation of concepts of roles and values. Television is the central and universal story-teller in our society. Its dramatic programming presents a translucent and compelling world of times, places, social types, strivings, powers, and fate. The world of television drama is a highly structured, relatively stable and compelling ritual, encountered nonselectively by most viewers. Our task is more to diagnose than to judge it, but we report our findings in terms of general standards of equity, fairness, and justice.

The world of television drama is also a highly controlled assembly-line product governed by relatively few formulas. Its people do not live or die but are created or destroyed to tell a story. The message of all stories emerges from aggregate patterns of casting, characterization, and fate. Moreover every dramatic program is structured to make its casting seem natural--but casting has a message of its own. Roles are created in direct relation to usefulness in the world of television. Those for whom the world of television has more use--more jobs, adventures, sex, power, and other opportunities and life chances--are created and cast in greater number than those whose dramatic uses are more restricted. These values are distributed as most resources are distributed: according to status and power. Dominant social groups tend to be overrepresented and over-endowed not only absolutely but even in relation to their numbers in the

real population. Minorities are defined by having less than their proportionate share of values and resources. In the world of television drama this means less usefulness and fewer opportunities. Underrepresentation means restricted scope of action, stereotyped roles, diminished life chances, and undervaluation ranging from relative neglect to symbolic annihilation.

We do not wish to imply that faithful proportional representation of reality is necessarily fair or just. Artistic and dramatic functions require selection, amplification, and invention, all of which may deviate from what the census reports or what independent experience reflects. Reality provides a standard by which the nature and extent of the deviations can be measured. The important question is not so much whether there are deviations as what kind and with what consequences for thinking, action, and policy.

Demography and Power

Figure 1 (Table 3 and 4) shows the age distribution in real life and in the world of prime-time dramatic television. In contrast to the distribution of age groups in the American population, the television curve demonstrates a pronounced central tendency: it bulges in the middle years and grossly under-represents both young and old people. More than half of TV's dramatic population is between 25 and 45. Individuals under 18, who number about 30 percent of the U.S. population, make up only 8 percent of the fictional population. Those over 65, comprising about 11 percent of the U.S. population, make up 2.3 percent of the fictional population.

Rather strikingly, while this pattern of distribution does not exist in our real life population, it does appear to reflect the distribution of consumer income by age. Television's prime-time population may be seen as a mirror of the audience referred to by the industry as the "prime demographic market."

Figure 2 (Table 4) compares weekend daytime and prime-time age distributions. It shows that weekend daytime television is different in that the mid-teens (especially major characters) number more than their real-life share. Children's viewing time has even fewer people over 65 than does prime time; only 1.4 percent of all weekend daytime characters are 65 or older.

Another big difference is that characters in their twenties and early thirties, prominent in prime time, are reduced by half in children's program time. The age group of the parents of young children has a low profile, as does the age group of their grandparents.

In the world of prime-time television drama -- as in most mass

media -- men outnumber women about three to one. This fact has profound consequences for all that happens in that world, from patterns of aging and employment to sex and violence. Women actually outnumber men among characters in their early twenties, when their function as romantic partners is supposed to peak, but then their numbers fall to 4 or 5 times below the number of men as their usefulness in the world of television declines.

The percent of men and women in each age group is shown in Figure 3 (Table 4). The age distribution of females, compared to that of males, favors young girls and women under 35. While women are most concentrated, with almost a third of their total numbers in the 25 to 35 age bracket, men are the most concentrated, also with almost one-third of their numbers, in the 35 to 44 age bracket. The character population is structured to provide a relative abundance of younger women for older men, but no such abundance of younger men for older women. Television perpetuates an inequitable and unfair -- if conventional -- pattern.

Figure 4 (Table 4) shows the pattern in children's programs. Over half of all females are under 21, but only 28 percent of all males are under 21. The second hump is all male. The most visible male age group is between 35 and 45: fully one-third of all men in weekend daytime programming are in this group.

The patterns of prime-time are even stronger in weekend daytime programs, as men and women over 45 become progressively less visible. Women over 65, over 12 percent of the real female population, are 4 percent of the women in the world of children's television; older

men account for only 2 percent of the men.

Figure 5 (Table 5) compares the age distributions of white and non-white men and women in prime time. It shows that while white men dominate the age of dramatic authority between 35 and 45, both non-white men and all women tend to be younger. Minority males occupy an age-related power position between white males and all females. Age as a resource cuts two ways for race as well as for gender.

As noted above, coders judge the chronological age as well as the social age of all characters. Social age is a functional category scheme used to characterize life cycle as well as type of dramatic role. The categories are children and adolescents, young adults, settled adult, and older adult. The older adult role is one in which characters are portrayed as past the prime and active years of life and one in which characters are visually old.

The distribution of these roles for all characters in all programs can be seen in Figure 6 (Table 6). It confirms what we have seen earlier. The bulk of the dramatic population is shows in settled adulthood. The dramatic need for women as romantic partners makes their percentage cast as young adults nearly double that of men. Older men and women are grossly underrepresented.

Figure 7 (Table 6) shows that in prime-time the situation is essentially the same. On weekend-daytime children's program, as we can see on Figure 8 (Table 6), there are proportionately more

females in childhood and adolescence as well as in young adulthood, and fewer in old age. To find an older major character a child will have to watch an average of two weeks for a male and six weeks for a female.

The distributions we have found do not change much from year to year. Figures 9 and 10 (Table 7) show that the age structure of the world of television is a stable system.

The relationship of chronological age to the role a character plays is not a fixed one. On the contrary, the use of age as a resource means, as we have already seen, that some types of characters play different roles than other characters of the same age. We will only sketch two types of differences that have to do with two great dramatic -- and real life -- indicators of human and social relationships: sex and violence.

Sex and Casting

The aspect of sex that we will talk about is its basic raw material: casting. We have seen the disproportionate use of young women to play opposite older men. This means that women on television "age" faster than men. As women age, they are cast for roles that decrease their romantic possibilities. Figure 11 (table 8) presents comparisons between chronological age and social age categories. It shows that already in their teens, a larger percentage (38 percent) of female major characters is assigned to the older social and dramatic age category of young adults than males of the same age (30 percent). In their twenties, only 26 percent of the men but 33 percent of the women will be cast as settled adults (the rest are of course young adults). Among prime time major characters from 55 through 64, only 22 percent of the men but 33 percent of the women will be cast as old characters.

Among characters 65 and over, 28 percent of the men will still play settled adult roles with romantic possibilities and 72 percent will be cast as old but 90 percent of women of same chronological age will be cast as old.

Violence and Power

Dominated by males and masculine values, much of the world of television drama revolves around questions of power. Who can get away with what against whom? How secure are different social types when confronted with conflict and danger? What hierarchies of risk and vulnerability define social relations? In other words, does power work in society?

The simplest and cheapest dramatic demonstration of power is an overt expression of physical force compelling action against one's will on pain of being hurt or killed, or actually hurting or killing. That is our definition of violence.

Violence rules the symbolic world of television. It occurs at an average 10-year rate of 5 violent incidents per hour in prime time and 18 per hour in weekend daytime children's programming -- a triple dose. Table 9 presents the distribution of prime-time characters on two violence related items. Table 10 gives similar information for characters in weekend-daytime (children's) programming. These tables present the number and percent of characters who commit violence (i.e., who hurt of kill other characters), and who are victimized (i.e., who are hurt or killed), as well as ratios indicating the relationship between these two roles. These risk ratios are obtained by dividing the more numerous of the two roles by the less numerous within each social group. A plus sign indicates that there are more violents or killers than victims or killed, and a minus sign indicates that there are more victims or killed than violents or

killers.*

Major characters are much more likely to both commit and/or be subjected to violence than minor characters. Overall, 55 percent of all prime time major characters and 80 percent of all weekend daytime major characters are involved in violence. But involvement and its outcome -- as all other values and resources -- are not equally distributed in prime-time programming. Older characters are less likely to get involved either as violents (hurting or killing other characters) or as victims (being hurt or killed) than younger characters, and women less likely than men. Even so, 25 percent of older women and 46 percent of older men are still involved in some violence. In children's programming, however, older women are more likely than younger women, while older men are less likely than younger men, to be involved in violence

Violence as a demonstration of power can be measured by relating the percent of violents to the percent of victims within each social group. These ratios show the chances of men and women, blacks and whites, young and old, etc., to come out on top instead of the bottom. Conversely, it shows the risks of each group to end up as victims instead of victors.

In prime-time programming, the male victimization ratio declines with age. Less than half of older men are involved in violence, but if and when involved, they are the only group to actually hurt others more than they get hurt themselves (12 inflict violence for every 10 that are hurt). Their fate changes, however, when violence becomes lethal. Then, with as many killed as killers, old men have the highest ratio of fatal victimization among all male age groups.

*A ratio of zero proceeded by a sign means that the group has either no victims (+0.00) or no violents (-0.00). A ratio of 0.00 means there are both no violents and no victims.

Old men on television drama, especially when in a major prime-time serious role, are more likely to be evil than any other age group. Evil must have power to be credible. But in a world of happy endings evil must also perish -- hence the high ratio of old men who are killed.

Women suffer a different fate. They are more likely to be victimized than men at most ages. As they get old, their relative risks of being hurt and being killed both rise even further. Old women rarely encounter violence (or anything else, because they appear, on the average, less than once a week), but when they do, the likelihood is that they will be the victim -- the -0.00 violent-victim ratio means that older women were hurt but none hurt other characters.

In weekend-daytime programming we find some but not all of the same patterns. As men age their victimization ratio decreases but older men are also more likely to be hurt or killed than to hurt or kill others. Older men, as well as boys, are not involved in killing -- none either were killed or killed another character.

Old women are still prone to victimization in children's programming but, as with old men, are not involved in killing. Young women fare the worst in this regard -- they have the largest victimization ratio (24 are hurt or killed for every 10 who commit violence) and when involved in killing they are the only age group who are the victims.

Personality and Living

This section focuses specifically upon four specific aspects of characrerization -- (1) role and evaluation, (2) home and family, (3) personality attributes, and (4) health. The analysis concentrates primarily upon the portrayal of major characters in prime-time drama. Where possible we discuss how these items are presented in weekend-daytime programming.

Role and evaluation

We start with three evaluation characterizations items -- character type ("good" or "bad"), a character's success (whether or not the character achieves what he/she sets out to do or otherwise exhibits characteristics indicative of success), and the type of role (comic or serious) in which a character is cast.

Overall, most major characters are "good" or "good and bad," and less then 15 percent are classified as "bad" (Table 11). Minor characters are also more likely to be portrayed as "good" or "bad". Figure 12 illustrates the proportion of "good" and "bad" characters among male and female major characters of different ages. The dotted line shows that, except for the children and adolescents, as males age, proportionately more are portrayed as "bad." For females (the solid line) however, the situation is reversed and, except for elderly women, proportionately more girls are portrayed as "bad" than young or middle-aged women. More older women, though, are portrayed as "bad."* The most obvious and important difference is that proportionately fewer older characters are "good," while the proportion of "bad" older characters is larger than in the younger age groups. These findings reinforce the notions of who is "good" and "evil" revealed in the patterns of committing violence and

*The number of female characters who are very young or very old is quite small.

being victimized.

Success is an extremely important age-related characterization item. As is true for character type, a large number of characters fall into the middle category -- they both succeed and fail. The proportion of characters classified as successful is quite stable -- between a third and two-fifths of all groups, except older women. In this case, the figure drops to 15.8 percent.

Striking age-related differences for success are illustrated in Figure 13. The dashed line on this chart reveals that the percent of successful men increases with age but, as women age (striped line), the percent who are successful see-saws and then drops to a mere 16 percent. Older women are also the most likely group to be portrayed as unsuccessful or as failures. In fact, more older women are unsuccessful than are successful. We do not find this for any other group.

Casting a character in a comic, serious, or mixed role is also a function of age. Table 11 and Figure [14] reveal that the elderly, especially older men, are less likely to portray serious roles than are young adult or middle aged men -- 51 percent of the older men as compared to 63 percent of the young men and 72 percent of middle-aged men portray serious roles. Women of all ages (striped lines) are less likely than the men to portray serious roles. The converse holds only for young women and middle-aged women. That is, a greater proportion of the older men (dotted line) than older women (solid line) portray comic roles. Boys and girls are more likely than older men and women to portray serious roles. Girls are the least likely to be cast in comic parts. Boys, young men and middle-aged men are equally likely to be comic. In regard to role, the most important differences are that fewer older characters portray serious roles and that older men are much more likely than younger men to be cast in a comic role.

In prime-time programming we found that considerably more characters of all ages are portrayed positively -- i.e. are "good" or successful. The only exception is for the success of older characters. In weekend-daytime programming (see Table 12), however, the polarization on these content items is less pronounced -- it exists only for younger characters -- the children-adolescents and the young adults. Proportionately more settled adults and older adults are portrayed negatively on these two items. And, as illustrated on Figures 15 and 16, as characters get older, the lines begin to merge. We thus find that in children's programming more of the young characters are "good" or successful while when characters get older, especially the older adults, more of the characters are presented negatively -- they are "bad" or unsuccessful.

The proportion of characters who portray a comic or serious role in weekend-daytime programming is quite similar for all age groups except older women. As Figure 17 illustrates, there are no outstanding differences. This is in sharp contrast to the role portrayals found in prime-time programming as seen in Figure 14. In this case we found that a rather small proportion of characters in all age-role groups were cast in comic roles while most characters portrayed roles that are serious in nature.

Home and Family

The next aspect of portrayal that we will discuss is home and family (Table 13). In prime-time programming we find that home and family are especially important features of major roles but usually are omitted in characterizations of minor roles. In children's programming, however, this concept is relatively unimportant to all major as well as minor characters, including the elderly, that is, most characters fall into the "cannot code" category on most items.

Home and family are important parts of characterizations in all age-groups in prime-time programming except young adults. We find that as characters age they are more likely to be portrayed as married -- married characters include 12.7 percent of the young adults, 37.7 percent of settled adults, and 64.8 percent of the elderly. The proportion of married characters is even greater among women; the married include 20 percent of the young women and only 8 percent of the young men; 33 percent of middle-aged men as compared to half of the middle-aged women; and 62 percent of the older men as compared to 71 percent of older women.

Older characters are also more likely to be portrayed as having children than are middle-aged characters -- 41.2 percent of the older men and 57.1 percent of the older women as compared to 22.7 percent of the middle-aged men and 32.5 percent of the middle-aged women. About the same proportion of older and middle-aged characters are cast in roles involving the care of children under 18 years of age.

Family life is especially important for children and adolescents, the older adults, and middle-aged women. Family life is least important for middle-aged men although in many characterizations coding cannot be completed because family lefe is rarely presented as obiously unimportant. Keeping house is a rare television world activity. Over the years we have found that very few characters perform homemaking tasks for other characters -- for example, cook for them. But, we have found that the largest proportion of characters who actually take care of other characters are middle-aged women (more than a third) and elderly women (about 25 percent).

When we look at romantic involvement, however, we get a very different picture of aging and age-roles. So far we have seen that home

and family are important aspects of the characterizations of older adults -- they are married, have or care for children and feel that family life is important. Romance, however, is not. Of the four age groups, the elderly (especially older women) are the least likely to be portrayed as involved in a romantic relationship -- from 1973-1978,* only one older women and three older men had romantic relationships. Moreover, the woman appeared in 1978.

The difference in the portrayal of marital status and romantic involvement is illustrated in Figure 18. This graph reveals that as characters age the proportion who are married increases, but the proportion involved romantically declines.** Thus, although most older characters are married they are the group least likely to be involved in a romantic relationship. This says something not only about age-roles but also about the nature of marriage. Marriage, at least in the television world, is pratically devoid of romance and is the domain of older people. Young characters, especially young women, on the other hand, are involved romantically but are not married.

The shape of the romantic involvement curve substantiates what the basic casting norms reveal in the overall distribution of men and women in the television world population. Although women, of all ages except for the early 20's, make up a smaller segment of this population, their greatest numbers are found in the younger age group -- the time when they are, for television at least, available for and involved in romantic relationships.

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*This content item (romantic involvement) was added to the recording instrument in 1973.

**Martial status and romantic involement are coded independly. A character who is married is not coded as involved in a romantic relationship unless there is evidence -- such as kissing, hugging, tendencies -- to substantiate the existance of romance in the marriage.

Finally, characters are rarely, if ever, portrayed as not having a family -- only 4 characters in the 8 weekly samples generated from 1973 to 1978 were so portrayed. Often, however, the plot gives no information about family status, especially for young and middle-aged characters. Children and adolescents are usually seen in family-related settings and older women are often portrayed as having family related interactions.

Finally, most characters, and even the older group are portrayed as living with other family members -- spouse, and/or children. Although only 15.5 percent of the elderly are shown living alone this information was not given for a fairly large proportion of characters -- between 40 and 50 percent.

Personality Attributes

We now turn to an examination of several attributes of personality of major characters in prime-time dramatic programming. These analyses were conducted on data generated from the message system analysis of all programs with elderly characters -- the AoA sample. The analysis focuses upon two sets of data -- scores on a series of personality trait scales and scores on a number of content items illuminating how characters of different ages are evaluated (treated/portrayed) in dramatic programming.

The personality trait profiles of major characters are presented in Table 14 and Figures 19-22. These profiles consist of scores on 5 point bi-polar adjective scales.

Examination of the general age-role profile (Figure 19) reveals that for the most part older characters tend to be portrayed less positively than younger characters on these traits. Older characters are neither attractive nor repulsive; they are also less fair, sociable, warm, kind or pleasant than the other age-groups. They are a little selfish, unhappy, and unwise.

They are, however, more extravagant than younger characters. Older characters exhibit more qualities of leadership than children/adolescents or young adults, but fewer than settled adults.

The personality trait profiles for men and women are illustrated in Figures 20 and 21 respectively. Generally, there is less variation between the personality trait scores for male characters of different ages than for the four groups of female characters. Nevertheless, the older men and older women both tend to be portrayed less positively than the three younger groups.

The comparison of older men and older women is presented in Figure 21. This profile reveals that on many scales older women are rated less positively than their male counterparts. They are slightly repulsive, less fair, somewhat unhappy. They are especially rated less positively on the scales relating to intelligence or proficiency -- they are less smart, somewhat unwise, as well as less rational, stable, efficient, and potent. Older women are, however, more sociable, warm, and kind, peaceful, and rich than the older men.

Personality trait profiles* of major characters in weekend-daytime programs are presented in Table 15 and Figures 23 through 26. In Figure 23 we see that what was true for prime-time programs is more pronounced in this sample: older characters -- including settled adults -- are rated less positively than younger characters. Ratings are especially different for those traits representing social aspects of personality. Older characters are somewhat repulsive, and unfair, not very sociable, or warm. They are also a little cruel, unpleasant and selfish. Older characters are also less smart and more unwise than wise; they do, though, exhibit leadership qualities.

*Some of the scales included in the prime-time profiles are not included in the weekend-daytime profile because the measure of reliability for these items did not meet minimal standards.

The profiles for males (Figure 24) and females (Figure 25) exhibit somewhat similar patterns even though there is more variation among the ratings for women in the four age roles.

The profile for just older characters reveals some very interesting differences in the portrayal of older men and older women (Figure 26). Older women are rated as quite repulsive while older men appear to be more neutral in this regard. Older women are also somewhat cold and cruel but are much more potent than elderly men. The women are also more stable and exhibit more qualities of leadership than the men.

Major characters in the AoA sample of prime-time programs are also rated on several other personality attribute scales. These scales include treating characters with disrespect or pity, and portraying characters as useful, lonely, a nuisance, stubborn, eccentric, or foolish. The values range from 1 (never) to 5 (always). In Table 16 three measures are given -- the percent of characters who are treated or portrayed as the scale suggests, the mean score for each scale and its standard deviation.

More older characters are treated with disrespect than characters in any other age group. About 70 percent of the older men and more than 80 percent of the older women are not held in high esteem nor treated courteously. This is quite different from younger characters, where more than half are usually treated courteously, appear to be admired, or are held in esteem. Of course, this disrespectful treatment does not occur every time an older character appears (the mean score was only 2.1), but nevertheless more than three quarters of the older characters are presented in a disrespectful manner. Similarly, a much larger proportion of older characters than younger characters are portrayed as eccentric or foolish. A larger proportion of older women than older men -- two-thirds as compared to about half -- are presented

as lacking common sense, acting silly or eccentric. This male-female distinction does not exist in the other age groups.

Two positive aspects of portrayal emerge from this analysis. First, the older characters are not portrayed as more lonely than characters in younger age groups. Also, the mean score on this scale for elderly characters is very low, indicating that loneliness, as an attribute of characterization, occurs infrequently. Second, most characters, including the elderly, are portrayed as useful.

In Table 17 we find that some of the patterns exist in regard to the treatment or portrayal of characters in weekend-daytime programming. Older characters, and especially older women, are more likely to be portrayed as foolish or eccentric. The portrayal of older characters as eccentric is especially strong -- practically all older characters are portrayed in this way and the scale value of 4.0 indicates that they were usually presented as eccentric. Most older characters are also presented as nuisances and are stubborn. And again, old women fare particulary poorly in this regard -- all old women are shown as stubborn and their score on this indicates that they are often portrayed as stubborn during the course of the program.

As is true in prime-time programming, loneliness is not presented as an attribute of characterization -- only 20 percent of the older characters are lonely. Proportionately more older women than older men are portrayed as lonely but the mean score indicates that loneliness rarely occurs in the story.

The most consistant finding is that as characters get older, they are presented as possessing more of these negative personality attributes. Older characters are more likely to be treated with disrespect; they are portrayed as more of a nuisance, as more stubborn, eccentric and foolish than younger characters. We do find, however, that most childern, and especially girls, are presented positively.

Health

This section of the report looks at a number of health-related content items. The analysis focuses primarily upon characters in prime-time programs because most of these items could not be coded for characters in the sample of weekend-daytime (children's) programming. That is, the portrayals generally give little or no information about these issues or the portrayals are totally positive -- characters are healthy, do not die, etc.

Illness and death are not a normal part of the television world population. Most television characters, the elderly included, are very healthy and very few die from natural or illness-related causes. Of course, it must be remembered that the television world is a fictional world in which a character's death or illness is planned and usually an intergral part of the plot. In fiction, death is often used to eliminate a character, to create suspense, or to move the story from one phase to another. Moreover, death when it does occur in television drama is more often than not the end product of a violent encounter. And, death is usually simple and pure -- it is rarely gory or presented as frightening.

Our 10 year analysis of prime-time television drama reveals that by and large television characters are especially hardy and healthy. Only one in ten characters is portrayed as sickly or with a physical illness requiring treatment. Moreover, very few characters have physical handicaps, are mentally ill, alcoholics or drug abusers.

Table 18 presents data for four health-related items -- smoking, drinking, sight impairment, and mobility -- for characters in the AoA sample.

We found that very few characters are shown smoking -- only 10 percent of the young and middle aged men and very few women (none of the young or elderly and only 4.1 percent of the settled adults). About 9 percent of the children and adolescents smoke.

Drinking alcoholic beverages increases with age -- 34.5 percent of the young adults, 36.8 percent of the settled adults and 40.8 percent of the elderly are shown consuming alcohol. A much larger proportion of the elderly women than young or middle aged women drink -- 56.3 percent compared to about a quarter of the younger females. But although characters drink, very few are portrayed as alcoholics; only 3 in the entire sample -- 1 middle aged man and 2 older men.

Television characters are also likely to have good eyesight -- almost 9 out of 10 characters in all age groups except the elderly do not wear glasses. Very few of the elderly are portrayed wearing or needing to wear glasses -- only about a quarter, men as well as women.

And finally, very few characters suffer from problems of physical mobility. And, physical mobility problems are also not included as part of most characterizations for older as well as younger characters. In regard to the elderly, only 2 characters, one man and one woman, were confined to wheelchairs; six (8.5 percent) characters, all men, walked with canes, and 7 (9.9 percent), including 1 woman, walked with a limp -- the classic "old age shuffle."

Television thus presents a rather gloomy although healthy picture of aging. Older persons are practically invisible. Elderly women are quite likely to be hurt or killed as well as be failures or unsuccessful. Older men do a lot of hurting but, at the same time, are more likely to be killed than to kill others. More older men than younger men or women of all ages are cast in comic roles. Elderly characters are more likely to be treated with disrespect and are portrayed as nuisances, as stubborn, eccentric and foolish. They are rated as less attractive and more unhappy than younger characters. But, they are also healthy. Finally, while home and family are important for elderly characters, romance is the domain of the young.

Contingency Analysis

An interesting description of characterization comes from a statistical technique called Contingency Analysis. The analysis uncovers clusters of characterization attributes that appear simultaneously. This analysis was performed for all characters in the AoA sample of prime-time programs and the results are presented in Table 19 and Figure 27. Table 19 lists pairs of significant association coefficients -- the measure of co-occurrance used in the analysis. Figure 27 illustrates attributes of characterization that are positively associated.

Finally in the graphic representation, the different size circles reflect the degree of importance (measured by number of appearances) of the attributes of characterization. Those attributes that appear only rarely are surrounded by small circles while attributes that appear frequently are surrounded by larger circles.

The results of this analysis reveal four basic clusters of characterization traits. These clusters can be titled home and family, crime-violence including "good" and "bad" age roles, and activities. Moreover, program type emerges as an important item -- characters with certain attributes are only found in adventure programs while others appear in non-adventure programs.

Home and family attributes emerge as one of the largest and strongest clusters in the analysis. Moreover, most of the attributes within this cluster are inter-related, that is they co-occur. Thus, we find characters who are married, tend to have or take care of children, perform homemaking activities, feel that family-life is important, etc. These characterization attributes also are found primarily in non-action adventure programs. An interesting and important cross-cluster association is the association between being an older character and exhibiting characterization attributes related to family and home.

The attributes that co-occur in this cluster obviously substantiate findings of the already presented cross-tabulation analysis. What is expecially important is that cluster analysis reveals a groups of characters who exhibit these traits. Thus these attributes seem to be part and parcel of a particular type of character -- the one for whom home and family are important. Moreover, there are no significant associations between this cluster and the more negative attributes relating to crime-violence.

The crime-violence or "bad" cluster reveals the co-occurance of many negative attributes of characterization. And, we find that characters who are "bad" often are failures, commit crimes, commit violence and are also victimized. Moreover, these five negative attributes are all interconnected and it appears that the character who commits violence usually also commits crimes, is victimized, is "bad", and so on.

The age role clusters are also very important. Older characters in particular have very interesting patterns of co-occuring attributes of characterization. In particular, older characters are those who portray comic roles, are seen as foolish, lonely, eccentric and are likely to be treated with disrespect. Again, the cluster analysis substantiates as well as illuminates findings reported above. The cluster also reveals that the elderly are often married and that family life is generally important to them.

The previous analysis revealed that very few characters, even older characters, were sickly, handicaped, etc. But the cluster analysis reveals that being an older character is significantly associated with having a physical handicap or restricted mobility. Thus, although these things occur rarely, when they do appear they are all usually part of an older person's role. Thus, we have even more evidence to support our contention that the elderly are treated negatively in dramatic programming.

Other age-related associations include the following. Categorization as a young adult is significantly associated with committing a crime or being victimized. Settled adults work at occupations, have children or are responsible for youngsters. And, finally, children and adolescents are shown participating in sports, are with their parents and are cast in non-action adventure programs.

CULTIVATION ANALYSIS

Cultivation analysis is the study of what is usually called effects or impact. Our approach considers 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. Culture affects 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 experience as well as 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 much behavior. Furthermore, common perspectives help structure the agenda of public (and often private) discourse and provide a basis of interaction among different social groups. 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 may create shifts in perspective that do not amount to much measurable difference in single individuals but can have major social and public policy consequences. That is why we tend to speak in terms of the contribution of television to the cultivation of common perspectives rather than in terms of achieving any 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? For example, our message system analysis shows that in the world of television, close to 80 percent of all prime-time and weekend-daytime dramatic programs contain some violence. We have also found that almost four out of ten elderly characters (37 percent) are likely to be victimized. In the real world, however, less than one out of a hundred elderly citizens is ever likely to be victim of criminal violence, robbery, or assault, which is less than the rate for other age groups.* Our cultivation analyses are designed to determine whether respondents' answers to questions about such matters as personal safety are more congruent with the television world or with reality.

These days nearly everyone "lives" to some extent in the world of

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*Report of the Special Committee on Aging, United States Senate, April 28, 1978, p. 193.

television* 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.

The next two sections of this report examine our cultivation hypothesis in two specific areas -- (1) perceptions of fear and danger and (2) images of older people.

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*Marilyn Jackson-Beeck, "The Nonviewers: Who are They?" Journal of Communication, 1977, 28, 65-72.

**A full description of the methodology employed in this research, including samples, can be found in George Gerbner, Larry Gross, Marilyn Jackson-Beeck, Suzanne Jefferies-Fox, and Nancy Signorielli, "Cultural Indicators: Violence Profile No. 9," Journal of Communication, 1978, 28, 176-207.

Perceptions of Violence and Danger

Our prediction that heavy exposure to television cultivates an exaggerated sense of potential victimization has been supported by analyses of numerous samples of respondents. This section looks more closely at age-related implications of such relationships, particularly in terms of assessing the elderly's susceptibility to cultivation in comparison with other age groups.

The analysis uses data collected especially for the present project, a national probability survey conducted by the Opinion Research Corporation (March 1979 Caravan).

The most dominant aspects of violence in dramatic programming may by summarized as follows. About 30 percent of all characters and over 60 percent of major characters are involved in violence, either as perpetrators or victims, or both. Close to 80 percent of all prime-time and weekend-daytime dramatic programs contain some violence. Many dramatic programs are crime oriented, and characters who portray police and detectives represent one of the largest occupational categories in the entire television world. Patterns are often more pronounced and extreme in weekend-daytime (children's) shows; this past year, almost nine out of ten of all children's shows contained violence.

Unlike a sizable portion of violence-related research, we have not investigated the question of whether television stimulates violence and aggression. While there are rare (but widely publicized) cases of serious imitative violence, we would hardly need elaborate research studies if the most likely and menacing effect of television violence were the instigation of actual violence. Our research is based on the premise that television violence serves as powerful socializer in our society because it vividly demmonstrates a hierarchical power structure.

In this view, television violence is a simple and inexpensive way to show the winners and the losers , as well as the rules of the game. Moreover, a subtle and pervasive consequence of cumulative exposure to formulaic symbolic violence may be the generation of fear -- and, ultimately, acquiesence to the power than can be achieved because of it.

Our research has shown that even with other things held constant, heavy viewers of all ages are more likely to give "television answers" -- responses more congruent with the television image whan with the "facts." Since many factors and processes could account for relationships between viewing and responding in favor of the clusters of outlooks revealed in "television answers," we implement controls for major demographic variables. These controls have been used to elucidate aggregate patterns and relationships between amount of viewing and audience conceptions of reality, as well as to guard against spuriousness. For the most part, the relationships we observe stand up well under these controls, and thus, we can speak confidently about television's independent contribution to common perspectives and widely-held assumptions of social reality.

Even though the variables and influences we hold constant via statistical manipulations do not "explain" the observed associations, the existing relationships and patterns are not always identical across all subgroups of the population. Consequently, some of our recent research has been devoted to uncovering the conditioning and mediating variables that may enhance or diminish cultivation. In this section we focus on age as a factor that may influence the cultivation process.*

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*Of course, we cannot say whether age-related discrepancies and variations are due to historical or maturational processes. There are significant characteristics of people who are old today that may not always be true of the elderly; for example, the percentage of college-educated older people is certain to rise in the future. Therefore, to a certain extent it remains unclear whether the differences we observe among age-groups can be interpreted as generalizable implications of the aging process, or as the results of being old at this particular social-historical point in time.

We constructed an index of five questions in the 1979 survey that measure various perceptions of violence and danger in society. These questions relate to matters such as perceived chances of involvement in violence, expressed fear of walking alone at night in one's own neighborhood, and so on. While these variables reflect discrete bits of information, they also emerge as a unidimensional construct.*

The overall correlation between amount of viewing and scores on this index is .16 ($p<.001$). As seen on Table 20, individual controls for age, education, newspaper reading, family income, sex, race, and urban proximity produce virtually no deterioration in the overall relationship. Even when all seven controls are simultaneously held constant, the correlation remains positive and highly significant ($r = .10$, $p<.001$). Further, hierarchical regression analysis shows that amount of viewing adds a significant increment in total variance explained, even when all control variables are entered into equation before it ($F=67.01$, d.f. $= 8, 5526$, $p<.001$).

Television viewing thus makes a significant overall independent contribution to various perceptions of fear and danger. How does this pattern vary for those of different ages? Broadly speaking, the intensity of the association decreases with age, as can be seen on Table 21. The simple correlation for those between 18 and 29 years old is .21; for those between 30 and 54, it is .15, and for those over 55 it is .10. This is not to say that the relationship disappears with age, for all three correlations are highly significant. But the three correlations are also all significantly different from each other.**

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*Factor analysis reveals that there is only a single factor with an eigenvalue over 1.0 underlying the variables.

**For young vs. middle, $z=59.73$; for middle vs. old, $z=38.70$; and for young vs. old, $z=84.53$; all $p<.001$.

The magnitude of the association decreases monotonically across the three age groups under each individual control, except education. Yet, when all seven controls are implemented simultaneously, the resulting partial correlations are identical for the older and middle age-groups. The divergence between the simple and partial patterns suggest the association is mediated by other variables in different ways at different ages. For example, we found that income in particular is negatively related to violence index scores among middle-aged more than among older respondents.

Canonical correlation enables us to examine television's contribution relative to each age-group, in the context of other age-related variations. We conducted this analysis for all respondents as well as within each age group. The canonical outcome set is the five violence-related dependent variables while television viewing and the seven demographic controls are the predictor set.*

The results are shown in Table 22. The loadings of all five variables in the outcome set are positive. Three of these variables clearly load more strongly than do the other two: expressing fear about walking alond at night in one's own neighborhood, feeling fear of crime is a serious personal problem, and overestimating chances of involvement in violence. The dominance of these three variables is found for respondents in each age group as well as the entire sample. The analysis also reveals that a demographic profile of respondents who generally score higher on this index can be gleaned from variables within the predictor set.

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*In every case, there are at least four statistically significant canonical variate pairs. Since the latter variates explain considerably less variance we will primarily report findings from the dominant pairs.

Specifically, high scorers on the violence index (those who tend to express greater perceptions of fear and danger), tend to be women, urban residents, less educated, low income, non-white, heavy viewers who are older and do not often read newspapers. Conversely, those less likely to express an exaggerated sense of fear and potential victimization are men, non-metropolitan residents, more educated, with high incomes, white, light viewers who are younger and read newspapers frequently.

This is the dominant profile; it does not imply that television cultivates these attitudes only for women, urban residents, the less educated, etc. This procedure serves simply to isolate the independent (predictor) variables that most powerfully predict the dependent variables, with every thing else held constant.

The real value of the analysis is to reveal concomitant processes and how variables' predictive powers vary for respondents in different age groups. The loadings indicate that the apparent contribution of television declines as respondents get older. The influence of education and news paper reading increase with age, while the effects of income and sex are decreased. At the same time, the canonical correlation coefficients for each group are quite similar. And, if anything, the predicators explain slightly more variance among the oldest group of residents.

So far, we have seen that the relationship between viewing and perceptions of danger and victimization holds up significantly for all age groups, if less so among the elderly. Basic patterns appear to apply to all ages, in varying degrees. The analysis also reveals an interesting reversal, one in which the elderly manifest a quite different pattern from younger and middle-aged respondents.

The correlation between perceived chances of involvement in violence and fear of walking alone in one's own neighborhood at night is .15 (p .001). In other words, those who think their likelihood of encountering violence is high are likely to be afraid in their own neighborhoods. But because the correlation is somewhat small there are many who think their chances of victimization are high but are not afraid to walk around their own neighborhoods.

This belief -- a general overestimation of the possibility of encountering violence, coupled with not being afraid in one's own neighborhood -- emerges as the second major finding of the canonical correlation analysis for all respondents and for the young and middle-aged subgroups. It is, however, only the third outcome set for older people. The validity of this constellation receives support from the positive loading on this variate for the "crime is rising" item and a negative loading for the item stating that fear of crime is not a serious personal problem. (this finding does not hold for the youngest respondent group, though.)

Most importantly, as seen in Table 23, the implications of television viewing (and certain demographics) in predicting this set of beliefs are not the same for all age groups. For the younger and middle-aged groups, those who think their chances of being involved in violence are high, but not when in their own neighborhoods, are less educated, non-urban, younger (within the broad age groupings), have lower incomes, and are heavy viewers.

But for respondents over 55, those who feel safe in their neighborhoods yet still think their chances of encountering violence are high are somewhat likely to be lighter television viewers. Elderly heavier viewers are more likely than light viewers to say that fear of crime is a serious problem for them and their own neighborhoods are dangerous at night; but they do not overestimate their chances of being involved in violence and are not more likely to think that crime is rising.

The most conservative explanation is simply that television's contribution to this attitude profile for respondents over 55 is much weaker than in the other age groups. The coefficient is negative but it is quite small, and should not be over-interpreted.

While television may cultivate the notion that the "world" is dangerous, it does not necessarily lead people to think the same about their own neighborhoods, at least when their own neighborhoods are safer. This fits well with findings of some of our recent analyses; cultivation is most pronounced when the respondent's environment is congruent with that seen in the television world.

Younger and middle-aged respondents who do not live in urban centers and who watch more television are more likely to perceive the world at large, but not necessarily their own neighborhoods, as dangerous. The role of television in terms of this set of beliefs is cloudier for those over 55.

Thus, the relationship between viewing and the violence items is somewhat weaker for those over 55. Further, television does not seem to contribute to expressing fear of the world, but not near home, for those over 55. But the category of "over 55" itself contains a broad age span, representing considerable internal variation in education, income, and other social characteristics. The associations may not be weaker for the entire group. Are there meaning fully different patterns of cultivation between the "younger" and "older" elderly?

In order to answer that question, we divided the sample into ten age categories, each encompassing about ten percent of the entire sample. Figure 28 shows the relationship betwnne amount of viewing and violence index scores for each of these ten age groups. The solid line represents the simple correlations, and the broken line illustrates the partial correlations controlling for sex, education, income, urban proximity, news-

paper reading, and race.* It is not until we examine the very oldest subgroups (ages 70 to 93) that the relationship between amount of viewing and the violence index fully disappears. Those from 54 to 69 years old (especially those between 54 and 60; the "youngest" elderly) exhibit strong and significant associations.

Simultaneously controlling for the various demographic factors (via partial correlation) only intensifies the patterns. The associations are somewhat stronger for younger respondents, particularly those in their twenties. From thirty to forty, the relationship steadily weakens. It then steadily intensifies (according to the partials), and peaks again in the late fifties; it remains fairly strong for those in their sixties only and becomes negative as well as non-significant after age 70.

Thus, it is not at all the case that television's cultivation of a sense of fear disappears after age 55. Quite the contrary; those in their sixties manifest far stronger associations than people in their thirties. It is only after age 70 that the relationship disintegrates.

The lack of association among the oldest respondents may be the result of a ceiling effect. From age 43 onwards, scores on the violence index increase sharply and monotonically. The rate of increase levels off after age 60, but scores still continue to rise; respondents in the 70 to 93 age group have higher scores than any other age division. Therefore, at least in terms of perceptions of fear and danger, it is not just that the elderly have "lived longer without television" than others. The absence of a relationship between amount of viewing and endorsing these conceptions may be due to the fact that those over 70, as a group, are quite fearful -- they can score no higher on this index.

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*Inasmuch as both television viewing and violence index scores are related to age, each of these correlations was recalculated using McNemar's formula for the correction of heterogeneity of variance (variance curtailment) within subgroups. The resulting patterns match the simple correlations almost exactly. (See Quinn McNemar, Psychological Statistics, 3rd. ed. New York: Wiley, 1962, pp 144-145.)

We have also suggested among different age groups, demographic factors may mediate cultivation patterns in different ways. This is affirmed by the broken line in Figure 28. The controls produce substantial declines in the simple correlations for middle age groups (30 to 50). For people in their sixties, however, the simple and partial correlations are essentially equal. Therefore, those between 55 and 70 do exhibit evidence of cultivation; and powerful demographic factors make virtually no difference.

This, however, does not mean that the patterns are identical for all older subgroups. Rather, for respondents over 55 there are enormous differences among the comparison groups. This is clearly illustrated by the gamma coefficients in Table 24. These coefficients reveal the relationship between each violence index item and amount of viewing within each demographic classification.

Two findings are particularly noteworthy. First, there is no underlying trend in regard to which groups of elderly respondents are the most susceptible to the cultivation of violence and fear-laden images. Table 24 shows a good number of moderate to large significant associations within subgroups. And it is virtually impossible to target one group or another as consistently more or less vulnerable. For some items, the associations are stronger for males while for others females exhibit the largest gamma's. Sometimes, the relationships are more powerful for the college-educated, or for white respondents, or infrequent newspaper readers, and sometimes the opposite holds. Thus, at least in terms of these five variables, different groups are differentially susceptible to cultivation on different questions. The only exception is that those who do not live in metropolitan areas have consistently weak or even negative associations. Besides that, the point is that while many subgroups.

of over age 55 respondents show evidence of cultivation, for the most part, demographic factors do not systematically and consistently mediate the process.

The second finding relates to the differential role of demographic factors for respondents over 55 as compared to the rest of the sample For example, in regard to perceived chances of violence, education makes no difference for younger and middle-aged respondents; the associations are virtually the same for those who did and did not attend college. Yet, for those over 55, the relationship is stronger for those who did not attend college. Similarly, in terms of whether respondents feel fear of crime is a serious personal problem, education again makes no difference for the younger age groups; and, in this case, the relationship is more powerful for older respondents who did attend college. Finally, for younger and middle-aged respondents, the association between viewing and being afraid to walk alone in one's own neighborhood at night is stronger for those without college; for those over 55, a college education signals greater vulnerability.

To sum up these analyses, those over 55 as a group show somewhat weaker, but frequently significant, relationships between viewing and images of violence. The relationship disappears, moreover, only for the very oldest respondents, those over 70. People in their 60's manifest some of the strongest relationships; furthermore, relationships for people in their 60's withstand powerful controls better than the relationships for many other age groups. It is, however, difficult to specify older subgroups that are consistently more and less likely to show evidence of cultivation. Finally, demographic factors mediate the cultivation process in different ways for those over 55 as compared to younger and middle-aged respondents. Thus, old age does not imply immunity to television's

messages, for in many subgroups, the strongest associations exist for the over 55 group.

Respondents over 55 are more vulnerable than any other age group for one question in particular:

> Elderly persons are more likely to be the victims of violent crime than any other age group. (agree, disagree)

As we have noted, older male television characters have the highest ratio of fatal victimization, and older women have the largest relative risk of being either hurt or killed. Respondents over 55 show the strongest relationship between amount of television viewing and the tendency to agree with this statement. Table 25 reveals that the relationship is erratic, haphazard, and even occasionally negative and significant for younger and middle-aged respondents. But among older people, the gamma's for nine out of fifteen subgroups are large, positive, and significant. The overall gamma for older respondents is .27 ($p < .001$; CD = +13); for younger and middle-aged respondents, the gamma's are -.04 and .06, respectively (both n.s.).

Furthermore, older people exhibit the largest gamma's in eleven out of fifteen subgroup comparisons; and in ten of these comparisons the increase in the strength of the association is monotonic across age groups. While older women do not exhibit this relationship, there is probably a ceiling effect because 91 percent of the light viewers in this group think that the elderly are most likely to be victimized. Some of the subgroups manifest dramatic cultivation differentials. Less than 70 percent of the older light viewers who are male, or infrequent newspaper readers, or live in non-metropolitan areas, or have low incomes think that the elderly are most likely to be victimized. Yet close to or over 90 percent of the heavy viewers in these groups respond in this way.

Thus, older people may be vulnerable to the cultivation process when television's messages are most salient to their lives. In this case, older people may be most "receptive" to images concerning their personal safety. The associations between amount of viewing and responding that older people are more likely to be victimized, for those over 55, are some of the strongest cultivation relationships we have ever found. And unlike the violence index analyses, the most powerful relationships appear within the very oldest group -- those over 70.

In conclusion, relationships between amount of viewing and images of social reality are often more powerful among younger people. But having lived longer without television clearly does not grant immunity to the cultivation process. On the basis of these few variables, we cannot say which demographic factors are mostly likely to enhance or diminish cultivation among older people. It may be that such mediations depend entirely on the specific question. But, the saliency of the topic for the respondent may be the most critical aspect in regard to the intensity of the association. The question concerning perceptions of the elderly's likelihood of victimization, for example, produces some of the most dramatic and striking cultivation differentials we have encountered in any of our studies. This fits well with our ongoing analyses of other data bases. We have found that people over 65 show considerable evidence of cultivation on aspects of social reality that are directly related to their own lives; similar patterns emerge in other samples for other questings pertaining to the problems of crime for those over 65. Thus, while the elderly may reveal less evidence of cultivation in some areas of analysis, they may also manifest enormous associations between how much they watch television and their conceptions of issues that have relevance and salience in their own lives.

Images of Older People

What are the lessons viewers derive from television drama about what it is like to grow old and be old in our society? What are the implications of heavy viewing on people's perceptions of the qualities, the abilities, the life styles, and the health and well-being of the elderly? In short, are heavy viewers more likely than light viewers to incorporate some of television's representations into their own beliefs and assumptions about aging and the elderly?

Our cultivation analysis of this area is based upon data from the National Council on Aging's "Myth and Reality of Aging" survey (NCOA) conducted by Louis Harris and Associates in 1974. The main results are clear and consistent. The more people, and especially young people, watch television, the more they tend to perceive old people in generally negative and unfavorable terms. Heavy viewers believe significantly more than light viewers that old people are a vanishing breed. Furthermore, those who watch more television believe that people (and especially women) become old earlier in life. Most of these and other findings reflect a generalized set of beliefs that relate to the ways television drama depicts old people and their circumstances.

Of all of television's messages, our research has revealed that the most telling and pervasive may be that of underrepresentation. We constructed an index from responses to statements in the NCOA Survey asserting that the number of older people, the health of older people, and the longevity of older people are declining.

Factor analysis revealed that indeed only a single dimension underlies these variables; they produce a moderate but acceptable alpha of .56

and more than adequately pass a series of validity checks.* Thus a high score on this index reflects a generalized belief that old people represent a diminishing rather than growing segment of American society.

Tables 26, 27, and 28 indicate that there is a significant positive relationship between amount of television viewing and scores on this index. The more people, and especially young people, watch television, the more they tend to perceive old people in generally negative and unfavorable terms. Table 26 shows that the correlation of .10 ($p < .001$) is not reduced by controls for education, income, sex or age. According to Table 27 it is much stronger for younger people; the correlation is .20 for those under thirty.

Thus, even with important demographic variables held constant, heavy viewers are more likely to believe that old people are disappearing. The more time one spends watching television, the more one thinks that there are fewer older people around, and that those who are may be dying sooner. Table 28 shows the means of a standardized residual variable, with education and income removed, for light, medium, and heavy viewers in the different age groups. Again, the strongest relationship is found among the younger respondents, and a weaker but still significant relationship is evident for those of middle age; older respondents show a slightly negative but non-significant relationship.

A further indication that television cultivates images of how old people live comes from our message finding that the elderly are more likely to be shown living alone than is any other age group. Although few

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*Mark Gonzalez, "Television and People's Images of Old Age". Unpublished M.A. Thesis, University of Pennsylvania, 1979.

characters of any age live by themselves, a higher proportion of the elderly do. Accordingly, heavy viewers are significantly more likely to believe that more old people are living alone today. Again, controlling for demographic variables does not affect the relationship (Table 26) and it is considerably stronger among the younger group and negligible among older respondents (Tables 27 and 28).

Finally, older people on television are not romantically involved. Although they do tend to be married, their roles do not allow them romantic interactions and love relationships. To match this finding, the NCOA data show that the tendency to believe that old people are inactive sexually increases with amount of viewing (Table 26). Heavy viewers are more likely than light to think that old people do not engage in sexual activity. This relationship is strongest among middle-age respondents (Table 27).

There are other survey findings that suggest that television cultivates negative images of the elderly. Heavy viewers are more likely to think that older people are not open-minded and adaptable; that they are not bright and alert; and that they are not good at getting things done. All of these relationships are stronger among younger respondents, those between the ages of 18 and 29. Perhaps, since young people are more "distant" from old age, and tend to have less direct experience with it, they are more vulnerable to television's messages. The absence of first-hand information may increase the salience of the television imagery. In fact, the relationships cited above are stronger -- even within the youngest age group -- among those who have little contact with the elderly.

However, it is also possible that younger people are more susceptible

to these messages because most of them have never lived without television. It is not necessarily the case that they will "grow out" of this as they age and learn more about aging. It is plausible to assume that in the years to come we will no longer see these persistent variations between age groups in their vulnerability to the cultivation of images of old people.

We found similar patterns in our own studies of adolescents.* We asked about 600 students between the 6th and 9th grades, "At what age does a man become elderly or old?" and "At what age does a woman become elderly or old?"

Overall, these adolescents find that the transition to old age happens rather early -- both men and women become old at about 55. But for light viewers, as seen on Table 29, it is about 57, while for heavy viewers people become elderly at age 51. (For almost every comparison and within almost every subgroup, these adolescents believe women become old before men do.) The partial correlations in Table 30 show that the overall r's of about -.21 are only slightly reduced by controls for IQ, social class, sex, and grade in school.

The functional form of the relationships is intriguing. The adolescent patterns are relatively monotonic; adult patterns, from questions in the NCOA survey, are not. Figure 29 plots the relationship between hours of viewing and scores on the index of the three questions about the absence of older people; other questions have similar patterns.

This chart shows that those who report watching no television at all

*Described in George Gerbner, et. al., "Cultural Indicators: Violence Profile No. 9", op. cit.

are the least likely to think that there are fewer old people today and that they will die sooner. Mean scores increase at one hour of daily viewing, and remain fairly stable through two, three, and four hours. These means then jump markedly at five hours and still continue to rise at viewing levels of over five hours. One implication is that since there are so few elderly people on TV, considerable viewing is required for the cultivation of negative images of old people. Those who watch at all hold more negative impressions than those who watch nothing; but the greatest jump comes at the upper levels of viewing.

One final comparison is worthy of note. We used the respondents' own perceptions about the way older people are presented on television as a control variable. The NCOA study includes ten items about the portrayal of elderly television characters. Two of these are "Television usually makes old people look sick and helpless, and "Television usually makes old people look pushy and meddling into their family's business." Responses to the ten questions were summed (the index alpha is .83) and sample divided into two groups: those who think that television shows old people in a narrow, limited, or negative manner, and those who do not.

We used this variable as a control when examining the relationship between amount of viewing and beliefs about older people. These dependent variables (presented in Table 31) revolve around personal qualities and attributes of the elderly -- e.g., are they bright and alert, open-minded, etc. -- and also include the index of whether they are disappearing. Among those who <u>do not</u> think that the image of older people on television is particularly bad, the relationships between television viewing and the dependent variables are all positive and significant. Among those who <u>do</u> perceive television's portrayals as negative, most of the relationships are zero; one is even significantly reversed.

In other words, if you do not find the portrayal of old people on television to be particularly bad, you are most susceptible to cultivation. However, it is not simply the case that perceiving television's portrayal of the elderly as negative "protects" you from cultivation. Those who perceive the television norm for old people as negative are far more likely to hold more derogatory opinions about old people, so there may be a ceiling effect for this group. In any case, as those who find television's treatment of the elderly relatively benign watch more television, they have more negative images of old people in the real world. This pattern tends to hold up within different education and age groups.

To conclude, these relationships should not be overstated. Although they all are significant, they range from small to moderate, at best. Television viewing explains little of the variance in people's perceptions about aging and the elderly.

However, amount of viewing does make a difference. In every case, it makes a consistently negative contribution to the public's images of the personal characteristics of the elderly, and the quality of their lives. We did not find watching television to be associated with any positive images of older people. Heavy viewers believe that the elderly are unhealthy, in worse shape financially, not active sexually, closed-minded, not good at getting things done, and so on. At the same time, television seems to be telling younger people that old age begins relatively early in life.