The "Mainstreaming" of America: Violence Profile No. 11

by George Gerbner, Larry Gross, Michael Morgan, and Nancy Signorielli

New findings of the Cultural Indicators research project support earlier results and lead to elaboration of the concepts of "mainstreaming" and "resonance."

Television makes specific and measurable contributions to viewers' conceptions of reality. These contributions relate both to the synthetic world television presents and to viewers' real life circumstances. These are the basic findings of our long-range research project called Cultural Indicators, and they have been supported, extended, and refined in a series of studies. Here we shall report new findings and introduce theoretical developments dealing with the dynamics of the cultivation of general concepts of social reality (which we shall call "mainstreaming") and of the amplification of issues particularly salient to certain groups of viewers (which we shall call "resonance").

The design of our research consists of two interrelated parts: message system analysis and cultivation analysis. Message system analysis is the annual monitoring of samples of prime-time and weekend daytime network dramatic programming (including series, other plays, comedies, movies, and cartoons). Cultivation analysis is the investigation of viewer conceptions of social reality associated with the most recurrent features of the world of television. Our studies since 1967-68 have traced some conceptual and behavioral correlates of growing up and living with a television world in which men outnumber women three to one, young people comprise one-third and old people one-fifth of their real numbers, professionals and law-enforcers dominate the occupations, and an

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average of five acts of violence per prime time hour (and four times that number per weekend daytime hour) involve more than half of all leading characters.

These results have been published in a series of Violence Profiles (11, 12, 17, 19, 22, 26) and in studies dealing with aging (27, 63, 65), sex roles and minorities (28, 30, 49, 62), children (16), occupational conceptions (39, 41, 64), educational achievements and aspirations (48, 50, 51, 52), family images and impact (24, 40, 53), sexual depictions and lessons (15), and death and dying (14).

The basic theories and recurrent findings of our research have been replicated and reanalyzed in many areas by independent investigators. Some, replicating our design or employing different methodologies, have confirmed, extended, or refined our work.[1] Others have presented critiques of our published reports on both methodological and theoretical grounds.[2] Our own reports have reflected these and other developments, and this report is no exception. In addition to bringing the Violence Profile up to date, we present a new formulation of our methodological and theoretical position based on new findings and relating to the work of these investigators.

The Violence Index is based on the analysis of week-long samples of prime-time and weekend-daytime network dramatic programming broadcast from 1967 through 1979.

For purposes of this analysis,[3] we define violence as the overt expression of physical force (with or without a weapon, against self or others) compelling action against one's will on pain of being hurt and/or killed or threatened to be so victimized as part of the plot. Idle threats, verbal abuse, or gestures without credible violent consequences are not coded as violence. However, "accidental" and "natural" violence (always purposeful dramatic actions that do victimize certain characters) are, of course, included.

A violent act that fits the definition is recorded, whatever the context. This definition includes violence that occurs in a fantasy or "humorous" context as well as violence presented in a realistic or "serious" context. There is substantial evidence that fantasy and comedy are effective forms in which to convey serious lessons (1, 10, 47). Thus eliminating fantasy or comic violence, as well as violence of an "accidental" nature, would be a major analytical error.

All items are coded by pairs of trained coders (see 22 and 25) and are subjected to an extensive reliability analysis (see 46). Only those items meeting acceptable standards of reliability (.6 or above) are included in the analysis.

The Violence Index combines three sets of observations in order to provide a single indicator sensitive to a range of program characteristics. These observations measure the extent to which violence occurs at all in the programs sampled, the frequency and rate of violent episodes, and the number of roles calling for characterization as violents, victims, or both.[4] These three measures have achieved high inter-coder reliability over the years we have been collecting these data. Although here we report only the Index, the component measures are always reported in our full technical reports (e.g., 25).

We have also established that the Index meets the critical statistical and empirical requirements of an index: unidimensionality and internal homogeneity (see 25, 32). For prime-time programs, factor analysis of our thirteen-year data base reveals only one factor underlying the components of the Index, which accounts for 70 percent of the variance. The internal homogeneity, as measured by Cronbach's alpha, is very high (alpha = .89). In weekend-daytime programs, the internal homogeneity is somewhat lower, but still acceptable (alpha = .66).[5]

The frequency of violence and the patterns of victimization in the world of dramatic television are remarkably stable from year to year. Overall, the Fall

[1] See, for example, findings by Volgy and Schwarz on doctor shows (69), Neville on mistrust (56), Gonzalez on aging (29), Pingree *et al.* on interpersonal mistrust (58), Zill on fear (71), Harr-Mazer on children's role (33), Rothschild on sexism and occupations (61), Doob and Macdonald on conceptions of violence in high crime urban areas (but not elsewhere, a point we discuss in this report) (7), Pingree and Hawkins on mistrust and perception of violence in Australia (34, 35, 59), and laboratory studies by Tan on role expectations (68) and Bryant *et al.* on anxiety (4). See also a comprehensive evaluative review of this and related research by Murray and Kippax (54), and the survey of studies prepared for the ten-year update of the report of the Surgeon General's Scientific Advisory Committee on Television and Social Behavior by Hawkins and Pingree (36).

[2] In this article we shall report on the statistical and empirical characteristics of the Violence Index and other methodological points contested by Owen (57; see also 13), Coffin and Tuchman (5, 6; see also 8, 9), and Blank (2, 3; see also 20, 21). We shall touch upon some points raised by Wober (70; see also 23) and Newcomb (55; see also 18). We shall also deal with the attempted replications and objections by Doob and Macdonald (7), Hughes (38), and Hirsch (37). One lengthy critique by law professors Krattenmaker and Powe (45) came to our attention two years after its publication and is too much of an idiosyncratic mixture of perceptive and puzzling statements to be dealt with seriously in this article.

[3] Many aspects of program content are coded for analysis; this report is limited to those aspects which relate to violence.

[4] These data sets are called prevalence, rate, and role, respectively. Prevalence (%P) is the percent of programs in a particular sample containing any violence. Rate expresses the frequency of violent actions in units of programming and in units of time. The number of violent acts divided by the total number of programs gives the rate per program (R/P) while the rate per hour (R/H) is the number of violent actions divided by the number of program hours in the sample. The latter measures the saturation of violence in time, and compensates for the difference in rates between a long program unit, such as a movie, and a short one, such as a cartoon.

Role is defined as the portrayal of characters as violents (committing violence) or victims (subjected to violence) or both, and yields two measures. They are the percent violents or victims or both (%V) and the percent involved in killing, either as killers, as killed, or both (%K). The Index is the sum of these five measures with the rates weighted by a factor of two. It is represented as: VI = %P + 2 R/H + 2 R/P + %V + %K.

[5] In weekend-daytime programs the internal homogeneity and degree of unidimensionality of the Index is reduced by one item—the percent of characters involved in killing. These programs generally have the highest rates of violent acts and the greatest number of programs containing violence. But they also have the smallest proportion of characters involved in killing. In fact, within these programs killing and other measures of violence are negatively related. Moreover, the weights included in the Index enhance its internal homogeneity. In each time period (and overall) weighting the rate per hour and rate per program (by a factor of 2) adds about .05 to the alpha.

1979 Violence Index shows some decline over the 1978 Index, much of which can be accounted for by a reduction of violence on ABC. Violence also declined after 9 p.m. but rose in the 1979 "family viewing" time (8:00 to 9:00 p.m. EST) (see Figure 1). Although still way above the level in prime time, violence in weekend-daytime (children's) programs also declined. The largest increase in violence in the 1979 sample was in new prime-time programs, especially in the former "family hour" and particularly on NBC. The largest reductions in violence were in the late evening by ABC and NBC and on weekend-daytime programs by all networks, but especially NBC.

In prime time, 70 percent of all programs still contained violence. The rate of violent episodes was 5.7 per hour, up from 4.5 in 1978. Nearly 54 percent of all leading characters were involved in some violence, about the same as in 1978. In weekend-daytime (children's) programs, 92 percent of all programs contained some violence, down from 98 percent in 1978. The rate of violent episodes was 17 per hour, down from 25 the year before. Nearly 75 percent of all leading characters were involved in violence, down from 86 percent in 1978.

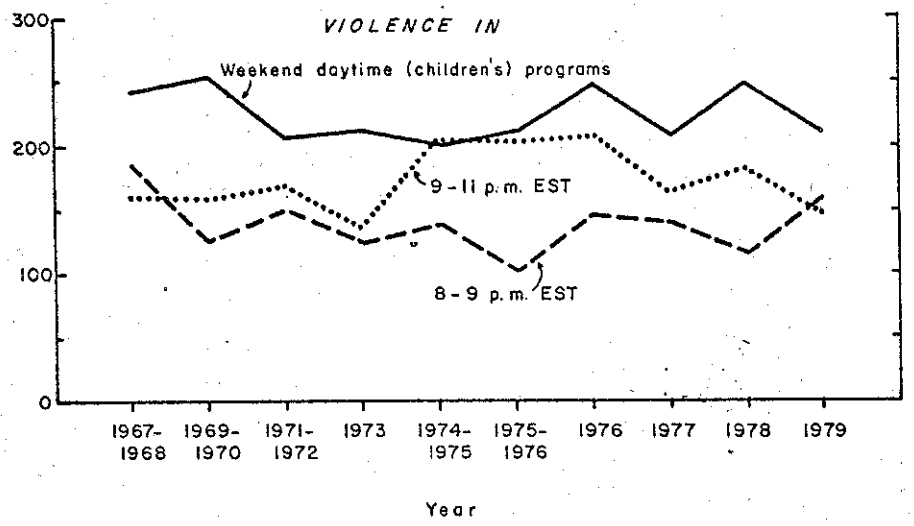


Figure 1: Violence Index in children's and prime-time programming, 1967-1979

Overall, the percent of characters involved in violence has remained fairly steady since 1969. About two-thirds of the males and nearly half of the females are involved. When involved, female characters are more likely than male characters to be the victims rather than the perpetrators of violence. Only one group of male characters—young boys—are among the ten groups who are most likely to be victimized. Women cast in minority roles (old women, upper-class women, non-white women, young women, and lower-class women) are especially more likely to suffer rather than to inflict violence. Only two groups of characters—old men and "bad" women—are more likely to hurt others than to be hurt themselves (for details of these and other message analysis findings, see 25).

We now turn to the theory of cultivation and to findings relating to conceptions of a mean world and its dangers.

Television is the central and most pervasive mass medium in American culture and it plays a distinctive and historically unprecedented role. Other media are accessible to the individual (usually at the point of literacy and mobility) only after the socializing functions of home and family life have begun. In the case of television, however, the individual is introduced virtually at birth into its powerful flow of messages and images. The television set has become a key member of the family, the one who tells most of the stories most of the time. Its massive flow of stories showing what things are, how things work, and what to do about them has become the common socializer of our times. These stories form a coherent if mythical "world" in every home. Television dominates the symbolic environment of modern life.

Cultivation analysis is the investigation of the consequences of this ongoing and pervasive system of cultural messages. Given our premise that television's images cultivate the dominant tendencies of our culture's beliefs, ideologies, and world views, the observable independent contributions of television can only be relatively small. But just as an average temperature shift of a few degrees can lead to an ice age or the outcomes of elections can be determined by slight margins, so too can a relatively small but pervasive influence make a crucial difference. The "size" of an "effect" is far less critical than the direction of its steady contribution.

We have found that amount of exposure to television is an important indicator of the strength of its contributions to ways of thinking and acting. For heavy viewers, television virtually monopolizes and subsumes other sources of information, ideas, and consciousness. Thus, we have suggested that the more time one spends "living" in the world of television, the more likely one is to report perceptions of social reality which can be traced to (or are congruent with) television's most persistent representations of life and society. Accordingly, we have examined the difference that amount of viewing makes in people's images, expectations, assumptions, and behaviors.[6]

In previous reports, we have stressed across-the-board consequences of television viewing. Thus, we expected heavier viewers to be more likely to give the "television answers" to a series of informational and opinion questions than lighter viewers. This theoretical perspective still holds and provides some of the

[6] We refer to this difference as the "cultivation differential" (CD) which is the spread between the percentages of light and heavy viewers who give a "television answer" to questions about social reality. The classification of respondents as relatively light, medium, and heavy viewers is determined by the distribution of amount of viewing in a given sample. Consequently, the actual proportions of lighter and heavier viewers will vary from one sample to another.

most compelling evidence for the existence of television's contributions to conceptions of social reality. But further examination of previously analyzed and new data reveals there are substantially different patterns of associations for different social groups between amount of viewing and certain conceptions of social reality.

Television's cultivation of conceptions and behaviors is a consistent process but is integrated in different ways and with different results into different patterns of life. Therefore, a fuller understanding of television's contribution may be achieved by paying particular attention to differences across different subgroups.

Many differences between groups of viewers can be explained in terms of one of two systematic processes which we call "mainstreaming" and "resonance."

The "mainstream" can be thought of as a relative commonality of outlooks that television tends to cultivate. By "mainstreaming" we mean the sharing of that commonality among heavy viewers in those demographic groups whose light viewers hold divergent views. In other words, differences deriving from other factors and social forces may be diminished or even absent among heavy viewers. Thus, in some cases we should only find evidence for cultivation within those groups who are "out" of the mainstream. In other cases, we may find that viewing "moderates" attitudes in groups whose light viewers tend to hold extreme views. But in all cases, more viewing appears to signal a convergence of outlooks rather than absolute, across-the-board increments in all groups.

For example, it is well documented that more educated, higher income groups have the most diversified patterns of cultural opportunities and activities; therefore, they tend to be lighter viewers. We found that, when they are light viewers, they also tend to be the least imbued with the television view of the world. But the heavy viewers in the higher education/high income groups respond differently. Their responses to our questions are more like those of other heavy viewers, most of whom have less education and income. It is the college-educated, higher income light viewers who diverge from the "mainstream" cultivated by television; heavy viewers of all groups tend to share a relatively homogeneous outlook.

But the relationship of real life experience to television's cultivation of conceptions of reality entails not only this generalized notion of "mainstreaming" but also special cases of particular salience to specific issues. This is what we call "resonance." When what people see on television is most congruent with everyday reality (or even *perceived* reality), the combination may result in a coherent and powerful "double dose" of the television message and significantly boost cultivation. Thus, the congruence of the television world and real-life circumstances may "resonate" and lead to markedly amplified cultivation patterns.

These processes are not the only possible mechanisms which might explain variations in susceptibility to cultivation. For example, related analyses of children and adolescents suggest that cultivation may be most pronounced when

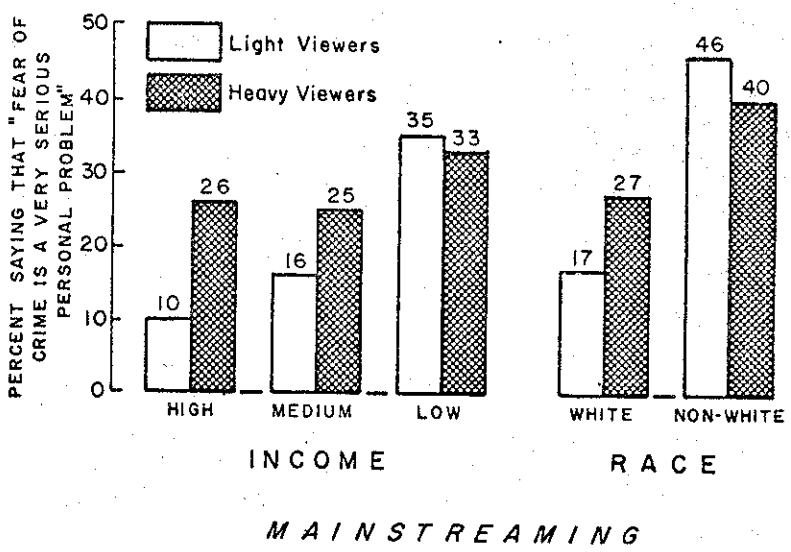


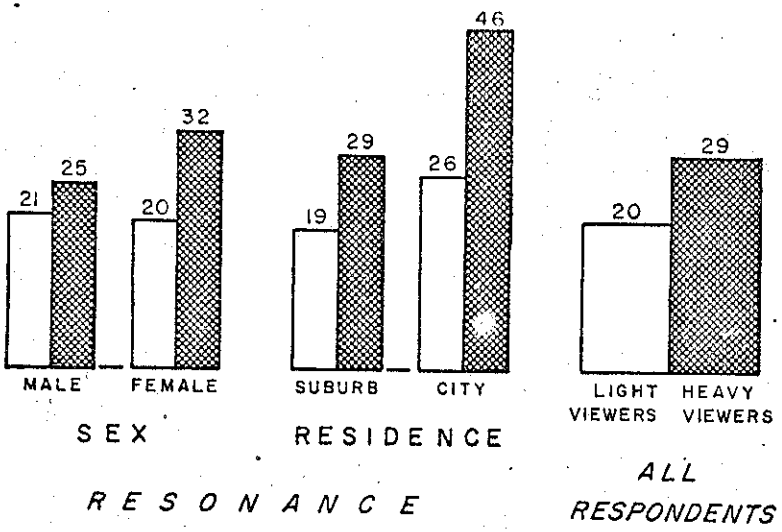
Figure 2: Examples of mainstreaming and resonance in terms of respondents saying that "fear of crime

parents are not involved in their children's viewing (31) or when children are less integrated into cohesive peer groups (61). Furthermore, the constructs of "mainstreaming" and "resonance" are still being developed and investigated. Although the number of empirical instances of each is rapidly growing, too few have been accumulated to allow for predictions of when one or the other—or neither—will occur. Nonetheless, we believe that the results we will report here suggest that these concepts merit serious consideration.

Before we present findings further illuminating the two phenomena, it may help to illustrate them graphically. The data for this illustration come from our most recent sample of adults, collected in March 1979 by the Opinion Research Corporation (ORC).[7] In this sample we found instances of "mainstreaming" and "resonance" in the differential patterns of responses to a single question which may tap some conceptions cultivated by the violent and dangerous world of television. Figure 2 presents two examples of each in terms of the relationship between amount of viewing and responding that "fear of crime is a very serious personal problem."

As shown in Figure 2 this relationship holds only for respondents with medium or high incomes; low-income respondents are more likely to agree, regardless of viewing. The proportion of light viewers giving the "television answer" is much lower in the higher income groups; yet the middle- and high-income heavy viewers are in the "mainstream." When we look at the responses by race we see a consistent but different pattern. The relationship between viewing and

[7] These data were collected as part of an Administration on Aging research grant (No. 90-A-1299) on "Aging with Television." George Gerbner, Larry Gross, and Nancy Signorielli were co-principal investigators (see 27).



Data source: Opinion Research Corporation, March 1979

the relationship between amount of viewing and percent of is a very serious personal problem"

fear is positive for whites but slightly negative for non-whites. Non-white light viewers are especially likely to express the notion that fear of crime is a "very serious personal problem." Heavy viewing among non-whites may moderate this outlook; thus, they are closer to the "mainstream."

The right-hand section of Figure 2 also shows that the association is strongest among females and among those who live in cities. To a large extent, this fear may be most salient to such respondents. Accordingly, real-life circumstances and environmental factors may "resonate" with television's messages and augment them.

We shall now examine both mainstreaming and resonance in light of new data and in response to critiques of our earlier analyses.

Examples of "mainstreaming" can be found in analyses of questions relating to what we have called the "mean world syndrome." We combined three items from the 1975 and 1978 National Opinion Research Center (NORC) General Social Surveys to form an index of interpersonal mistrust (alpha = .68) similar to Rosenberg's "faith in people" scale (60). The three items—which form the Mean World Index—measure the degree to which respondents agree that most people are just looking out for themselves, that you can't be too careful in dealing with people, and that most people would take advantage of you if they got a chance. As shown in Table 1, which presents within-group partial correlations between amount of viewing and this Index, television viewing overall is significantly associated with the tendency to express mistrust ($r = .12$, $p < .001$). This relationship is not fully accounted for by any individual control. Simultaneous controls greatly reduce its strength, but the relationship remains statistically significant.

Table 1: Within-group partial correlations between amount of television viewing and the Mean World Index

	Overall	Education		Income			Race	
		No college	Some college	Low	Med.	High	White	Non-white
Simple r	.12***	.06**	.14***	.03	.16***	.08	.12***	−.08
Controlling for:								
Sex	.12***	.06**	.15***	.03	.17***	.09*	.12***	−.07
Age	.12***	.06**	.14***	.02	.16***	.08	.12***	−.08
Newspaper reading	.11***	.06**	.14***	.03	.16***	.08	.12***	−.08
Subjective social class	.10***	.05**	.13***	.02	.15***	.07	.10***	−.07
Education	.07***	.06**	.12***	.01	.12***	.04	.07***	−.08
Income	.09***	.04*	.12**	—	—	—	.09***	−.11*
Race	.09***	.04	.10**	−.01	.15***	.08	—	—
Occupational prestige	.08***	.04*	.13***	.01	.13***	.04	.08***	−.08
All controls	.04*	.02	.08**	−.02	.11***	.04	.06**	−.10*
Final d.f. (8th order)	(2727)	(1853)	(861)	(1090)	(1290)	(317)	(2431)	(288)

Data source: NORC General Social Surveys, 1975 and 1978

* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$

Even more revealing than this small overall correlation is the relationship between television viewing and mistrust for specific groups of the population. The relationship is strongest for respondents who have had some college education—those who are also least likely to express interpersonal mistrust. (The correlation between education and the Mean World Index is $-.28$, $p < .001$.) The most striking specifications emerge for whites and non-whites. As a group, non-whites score higher on the Mean World Index ($r = .23$, $p < .001$). Yet, there is a significant *negative* association among non-whites between television and this index ($r = -.10$, $p < .05$). The relationship for whites, however, remains positive. Thus, those groups who in general are *least* likely to hold a television-related attitude are *most* likely to be influenced toward the "mainstream" television view; and those who are most likely to hold a view *more* extreme than the TV view may be "coaxed back" to the "mainstream" position.

Similar patterns can be found by examining the relationship between amount of viewing and feelings of alienation. In the 1977 NORC survey, alienation was measured by three of Srole's (66) anomie items—the lot of the average man is getting worse, it is hardly fair to bring a child into the world, and most

public officials are not interested in the lot of the average man. We had previously reported (22) that the relationship between amount of viewing and the tendency to agree with these statements holds up in most groups. When these items were reanalyzed by Stevens (67), Hughes (38), and Hirsch (37), they all found that the overall association disappears when several demographic variables are controlled all at once.

But the lack of an overall relationship does not mean that the relationship does not hold for any specific group of respondents.

We combined these items into an index (alpha = .61) and found that the best predictor of anomie appeared to be education ($r = -.31$, $p < .001$). When the relationship between television viewing and endorsing statements of alienation is examined within educational subgroups, the relationship persists for those respondents who, as a group, are far less likely to express alienation—again, those with some college education. This relationship withstands the implementation of a large number of controls, either singly or simultaneously ($r = .14$, $p < .01$; see Table 2). For respondents with less education, who are relatively alienated to begin with, television viewing has no apparent relationship with anomie. Again, we see that television may influence a convergence of outlooks toward its "mainstream" rather than cultivating absolute across-the-board changes.

New data from a national probability sample of adults (ORC) provide numerous examples of this "mainstreaming" phenomenon with regard to people's conceptions about crime and violence. Using a question that replicates some of our earlier work, we asked respondents whether chances of being involved in violence in any given week are one in ten or one in a hundred. Our basic expectation is that relatively more heavy than light viewers will answer that their chances of encountering violence are higher.

As Table 3 reveals, heavy viewers are indeed significantly more likely to give this response, overall and within most subgroups. Yet, there are important specifications. A large majority (84 percent) of both light and heavy viewers *with low incomes* give the higher risk response, and thus show no evidence of a relationship between amount of viewing and responses to this question. When we examine the middle- and upper-income groups, however, we find that the proportion of light viewers giving the "television answer" drops; "only" 62 percent of light viewers with higher incomes overestimate their chances of being involved in violence. Yet, the *difference* between light and heavy viewers rises sharply. Light viewers with middle and upper incomes are considerably less likely to express a high expectation of encountering violence, while heavy viewers with middle or high incomes exhibit almost the same level of perceived risk as the low-income group.

Such differences could be explained in terms of a ceiling effect. However, we think that the results we have found are a strong indication that television

Table 2: Partial correlations between amount of viewing and anomie by educational level

	Less than high school	High school	Some college
Simple *r*	.01	.06*	.14**
Controlling for:			
Sex	−.00	.06*	.15**
Age	.01	.06*	.14*
Newspaper reading	.01	.06*	.15**
Urban proximity	.01	.06*	.14*
Subjective social class	.01	.05	.14*
Education	.01	.06	.14*
Income	−.01	.03	.15**
Race	.01	.05	.13*
All controls	−.03	.01	.14*
Final d.f. (8th order)	(455)	(686)	(229)

Data source: NORC General Social Survey, 1977

* $p \leq .05$
** $p \leq .01$

does contribute to the cultivation of common perspectives. In particular, heavy viewing may serve to cultivate beliefs of otherwise disparate and divergent groups toward a more homogeneous "mainstream" view.

The other important refinement of our theory suggests that cultivation will be most pronounced when other aspects of one's social environment are most congruent and thereby "resonate" with television's message.

Among Canadians, Doob and Macdonald (7) found the strongest positive associations between amount of television viewing and fear of crime among those who live in high crime centers. Although they interpreted this finding as evidence of spuriousness of the relationship between television viewing and fear of crime, clearly the concept of neighborhood does not "explain" the observed relationship. Rather, it points to an important specification. For those urban dwellers who live in high crime centers, television's violent imagery may be most congruent with their real-life perceptions. These people receive a "double dose" of messages that the world is violent, and consequently show the strongest associations between viewing and fear.

We have found parallel results in an analysis of data from our most recent national survey of adults (ORC). We asked people about how safe they felt walking around alone, at night, in their own neighborhoods, and assumed that those who lived in urban areas would also be most likely to express fear. We found, as would be expected (see Table 3), that those who live in large cities are much more likely to be afraid in their own neighborhoods at night, regardless of amount of viewing. But city dwellers also "resonate" most—they show the strongest association between amount of viewing and expressing this fear.

Table 3: Summary of analyses of questions relating to fear and violence in the 1979 ORC survey

	Percent overestimating chances of involvement in violence			Percent agreeing that women are more likely to be victims of crime			Percent saying their neighborhoods are only somewhat safe or not safe at all			Percent saying that fear of crime is a very serious problem			Percent agreeing that crime is rising		
	%L	CD	g	%L	CD	g	%L	CD	g	%L	CD	g	%L	CD	g
Overall	71	+10	.14***	72	+10	.18***	55	+11	.10***	20	+9	.12***	94	+4	.30***
Controlling for:															
Age															
18–29	76	+14	.28***	73	+6	.11**	49	+11	.09**	16	+11	.21***	93	+4	.27***
30–54	68	+9	.11**	70	+10	.18***	53	+12	.09***	17	+11	.12***	96	+3	.27**
Over 55	71	+4	.07*	77	+10	.22***	65	+9	.06*	31	+1	−.01	94	+4	.38***
Education															
No college	76	+7	.13***	70	+12	.20***	58	+10	.07***	24	+8	.11***	96	+3	.28***
Some college	63	+9	.10*	76	+7	.06	49	+9	.07*	13	+5	.09*	91	+5	.22**
Newspaper reading															
Sometimes	75	+14	.25***	70	+15	.26***	58	+17	.10***	23	+11	.14***	94	+4	.27***
Everyday	69	+7	.10***	74	+17	.13***	53	+8	.09***	18	+8	.11***	95	+4	.36***
Race															
White	69	+10	.13***	73	+9	.17***	53	+10	.09***	17	+10	.14***	94	+4	.29***
Non-white	86	+7	.25**	70	+12	.21**	72	+16	.09*	46	−6	−.07	95	+4	.37**
Urban proximity															
City over 250,000	69	+10	.13**	77	0	−.00	71	+14	.19***	26	+20	.19***	88	+10	.52***
City under 250,000	74	+3	.05	64	+24	.42***	59	+8	.04	22	+5	.09*	89	+11	.57***
Suburban	67	+13	.18***	75	+10	.19***	50	+13	.13***	19	+10	.12***	96	+2	.13
Non-metropolitan	77	+8	.13**	70	+9	.17***	51	+7	.01	18	+2	.08**	98	0	.10
Income															
Under $10,000	84	0	.04	67	+18	.32***	61	+14	.10***	35	−2	−.00	96	+4	.51***
$10–$25,000	68	+8	.12***	74	+6	.12***	55	+6	.04	16	+9	.16***	93	+5	.35***
Over $25,000	62	+18	.13**	76	0	−.03	49	+1	−.01	10	+16	.11**	96	−1	−.13
Sex															
Male	68	+8	.09**	68	+10	.20***	38	+16	.16***	21	+4	.07**	95	+2	.07
Female	76	+8	.15***	78	+6	.14***	73	+1	−.01	20	+12	.14***	94	+5	.55***

Data source: Opinion Research Corporation, March 1979

* $p \leq .05$ (tau)
** $p \leq .01$ (tau)
*** $p \leq .001$ (tau)

Note: Viewing was measured by the following question: "On the average weekday, about how many hours do you personally watch television?" Light: under 2 hours; Medium: 2–4 hours; or Heavy: over 4 hours. %L (percent light viewers) refers to the percent of light viewers giving the "television answer." CD or Cultivation Differential refers to the percent of heavy viewers minus the percent of light viewers giving the "television answer"; g refers to gamma.

To provide further evidence we tried to approximate Doob and Macdonald's high crime/low crime distinction for respondents who live in cities. We assumed that respondents who live in larger cities *and* have lower incomes are likely to live in areas with relatively high crime rates, while high-income urban residents arguably live in less dangerous areas. We used the five questions from the 1979 ORC survey shown in Table 3 to form a Perceptions of Danger Index-I.[8] When amount of television viewing was correlated with the Perceptions of Danger Index-I scores, the relationship was much stronger for residents in low-income (presumably high crime) urban areas ($r = .26$, $p < .001$) than for those in high-income (presumably low crime) urban areas ($r = .05$; see Table 4.)

Table 4: Within-group partial correlations for residence and income between amount of viewing and the Perceptions of Danger Index-I

	City		Suburban, non-metropolitan	
	Low income	High income	Low income	High income
Simple r	.26***	.05	.10***	.20***
Controlling for:				
Sex	.27***	.05	.01***	.16***
Age	.24***	.05	.09***	.20***
Income	.26***	.02	.10***	.18***
Newspaper reading	.26***	.04	.10***	.20***
Education	.14***	.02	.11***	.15***
Race	.21***	.03	.11***	.20***
All controls	.13***	.00	.10***	.12***
Final d.f. (7th order)	(969)	(656)	(2017)	(1886)

Data source: Opinion Research Corporation, March 1979

* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$

This relationship remains positive and significant ($r = .13$, $p < .001$) for urban dwellers with low incomes and falls to zero for high-income urban residents when within-group controls for demographic factors are implemented simultaneously. While the correspondence between income and neighborhood crime is ambiguous in suburban and non-metropolitan areas, it is worth noting that the association between amount of viewing and these images of danger, crime, and violence remains significant despite controls. Thus, the role of television in the

[8] These items essentially tap discrete dimensions; their conceptual link, however, is that they examine various aspects of television's portrayal of violence. Thus, it is not surprising that while these questions are all positively and significantly related to each other, their additive index has relatively low internal homogeneity (alpha = .34). At the same time, there is only one factor underlying the five items, indicating a high degree of unidimensionality. This index is called the Images of Violence Index in Violence Profile No. 11 (25).

cultivation of attitudes and fears may be most pronounced when an issue has direct relevance to the respondent's life.

A further example of "resonance" from the same survey focuses upon the assumption that older people are more likely than younger people to be victims of crime (an assumption contrary to the facts). Young and middle-aged respondents show no overall relationship between amount of viewing and the tendency to think that the elderly are most likely to be victimized. But, among older respondents, there is a significant positive association between television viewing and expressing this belief (gamma = .27, $p < .001$). In particular, this holds for older respondents in those demographic groups in which light viewers are less likely to respond this way.

We must stress that these specifications do not exhaust cultivation results. Amount of viewing remains significantly related to scores on the Perceptions of Danger Index-I, over and above the effects of education, income, sex, race, age, urban proximity, and newspaper reading (seventh order partial r = .11, $p < .001$). Although the amount of the variance in these scores explained by television viewing is small, with other things being held constant its predictive power is equal to or greater than that of age, race, urban proximity, income, or newspaper reading. But even where a relationship disappears for an entire sample, as Hirsch (37), Hughes (38), and Stevens (64) have found, it may quite clearly hold up in certain groups.

Thus, we have seen two distinct processes which help explain differential susceptibility to cultivation. "Resonance" may occur when a feature of the television world has special salience for a group, e.g., greater fear among city dwellers, or perceived over-victimization by the elderly. In these cases, the correlates of heavy viewing are most apparent among those for whom the topic holds considerable personal relevance. "Mainstreaming," on the other hand, may be related more to general and widespread images and norms of social reality.

Data from our three-year longitudinal study of adolescents also provide strong evidence for both an overall effect of viewing and important specification/interaction effects.

In the second and third years of this study we included two dependent measures—the Mean World Index (see above) and an index of Perceptions of Danger-II. The Perceptions of Danger Index-II was composed of four questions relating to estimates of the chances of encountering violence, aspects of murders and killings, and the importance of knowing self-defense. Agreement with these beliefs was interpreted as reflecting a strong image of the world as a dangerous place.[9]

[9] The exact wording of the questions asked of our adolescent respondents and used in the Perceptions of Danger Index-II are presented in Violence Profile No. 11 (25). Both Perceptions of Danger Indices were called the Images of Violence Indices. The names of both indices have been changed to distinguish them from the Violence Index used in the message system analysis. The two Perceptions of Danger Indices tap similar concepts but are made up of different questions.

These data were analyzed in the form of structural equation models, using Jöreskog's LISREL program (see 42, 43, 44). This technique, a sophisticated form of path analysis, performs a maximum likelihood estimation of parameters in causal models. It also takes measurement error into account and reveals how well the hypothesized model fits the observed data. This procedure can simultaneously evaluate a "measurement model" (how well the observed indicators relate to the "true," underlying concepts) and a "causal model" (patterns of association among "true" observed constructs). All of the observed indicators show reasonably strong links with the "true" variables.[10]

Figure 3 presents the maximum likelihood solution of this model. The third year scores on the Mean World and Perceptions of Danger-II Indices are controlled for their second year scores, SES, and IQ, and thus represent "new information" or "change" in attitudes that is not attributable to previous levels or demographics. We see that those who were heavy viewers in the second year reveal greater fear and mistrust in the third year, even controlling for demographics and second year index scores.[11] Thus, amount of viewing has a positive impact on subsequent scores on the Mean World and Perceptions of Danger-II Indices for these adolescents.

Most importantly, the model provides a good fit to the observed data. Using the chi-square test (see Figure 3), the likelihood ratio is 1.86 (the lower the ratio, the better the fit). When measurement error is removed and even when IQ and SES are held constant, adolescents' perceptions of fear, danger, and mistrust vary over time as a function of earlier viewing.

Finally, the longitudinal data provide evidence of yet another specification. Among boys, there is an interaction between second year viewing and second year scores on the Perceptions of Danger Index-II upon the third Perceptions of Danger Index-II scores. With IQ, SES, grade, early viewing, and early scores on the Perceptions of Danger Index-II already in a regression equation, there is still a negative and significant interaction (partial r = −.30, F = 6.26, d.f. = 1, 64, $p < .05$). This means that for those boys who had low Perceptions of Danger Index-II scores and watched more television in the second year, third year scores increased. But among those who were initially *more* afraid, heavy viewing led to less fear.

This is a dramatic and significant demonstration of the power of television to cultivate mainstream outlooks. There are, to be sure, significant "main effects,"

[10] For SES, the coefficients linking concepts to indicators range from .66 for mother's education to .90 for father's occupational prestige. For IQ, they are .77 for verbal aptitude and .76 for nonverbal aptitude. Television viewing coefficients range from .56 to .85. The items measuring interpersonal mistrust produce links between .44 and .59. As for the adults, the Perceptions of Danger-II items are essentially discrete concepts, so the links are slightly weaker (.30 to .60).

[11] The conclusion is not challenged by the finding that it seems also to run the other way. In this case the "effects" of different variables cannot be "compared" because they are measured in different units. The finding that television viewing exerts a longitudinal causal influence on attitudes of fear and mistrust is not negated by the finding that these variables also affect viewing. The two causal processes are by no means mutually exclusive. The important thing, from our perspective, is that television demonstrably affects attitudes towards violence and mistrust among adolescents.

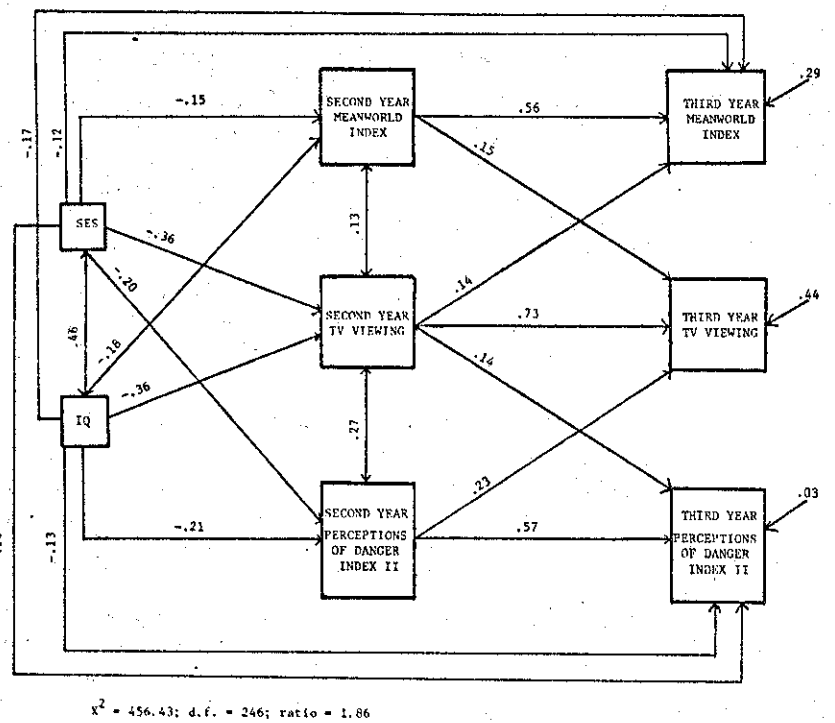


Figure 3: Structural equation model of the longitudinal relationship between viewing, fear, and mistrust

in a generally positive direction. But perhaps the more fundamental underlying process is that of convergence into a "mainstream" television view of the world, regardless of starting points. The ultimate homogenization of initially different perspectives may be the critical consequence of living with television.

The results reported here confirm, amplify, extend, and specify previous findings. The basic stability of the Violence Index and the apparent convergence of different programming parts (with the disappearance of the former "family hour" as a relatively low-violence zone) are the most noteworthy findings of message analysis. The cultivation analysis provides further strong support for the theory of pervasive cultivation of mistrust, apprehension, danger, and exaggerated "mean world" perceptions. Important specifications suggest that television viewing is associated with a cultural "mainstream" that tends to absorb or assimilate groups that otherwise diverge from it, and that the salience of certain real-life circumstances is likely to boost television's cultivating potential.

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