University of Pennsylvania
Proposal for Research Project

Submitted to: Markle Foundation

Title: Television's Contribution to Sex-Role Stereotypes and Public Morality: Toward a Theory of Conditional Effects

Principal Investigators: George Gerbner
Larry Gross
Michael Morgan
Nancy Signorielli

School: The Annenberg School of Communications

Duration: 1 year

Funds Requested:		
	Direct costs	$49,872
	Indirect costs	24,936
	Total	74,808

Corporate Name of University: Trustees of University of Pennsylvania

IRS Identification Number: 23-1352685

Contracting Office: Office of Research Administration
3451 Walnut Street - Franklin Building
Philadelphia, Pa. 19104

Officials to Whom Checks should be mailed: Trustees of University
of Pennsylvania
3451 Walnut Street
Philadelphia, Pa. 19104

Principal Investigator

Authorizing Official
A. W. Kinny
Assoc. Director
Research Administration

TELEVISION'S CONTRIBUTION TO SEX-ROLE STEREOTYPES AND PUBLIC MORALITY: TOWARD A THEORY OF CONDITIONAL EFFECTS

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

The Annenberg School of Communications
University of Pennsylvania
Philadelphia 19104

A Proposal to The John and Mary R. Markle Foundation

January 1981

SPECIFIC AIMS

We propose to investigate television's contribution to people's sex-role stereotypes, sex-typed behaviors, and contemporary sexual morality. The research seeks to understand how television's most stable and recurrent images and patterns are related to the conceptions and expectations of these notions held by viewers within and across different social and cultural groups. The proposed work will be a comprehensive secondary analysis based primarily on a survey recently conducted by The Roper Organization for Virginia Slims.

The major theoretical thrust of this research will be guided by, and thereby help to refine and focus, the two concepts "mainstreaming" and "resonance." These represent recent developments in the assessment of the process by which television cultivates conceptions of social reality (Gerbner, et al., 1980). "Mainstreaming" essentially refers to television's apparent tendency to cultivate a relatively homogeneous "mainstream" commonality of perspectives. It is particularly noticeable among groups whose light viewers tend to diverge from the "mainstream" but whose heavier viewers converge upon it. "Resonance," on the other hand, is a phenomenon of special susceptibility which occurs when a given television message has particular salience to the viewer's everyday reality (or even perceived reality). In these cases, the congruence between the television version of the "facts" and other dispositions "resonates," and amplifies the cultivation of television perspectives and assumptions.

These complementary processes have already been found to fit most differential cultivation patterns within specific subgroups in published and ongoing studies of television's contribution to interpersonal mistrust, perceptions of fear and danger, conceptions of science, health values and behavior, images of the workplace, conformity vs. self-direction in adolescents, and more. The major goal of the proposed research is to develop and test a paradigm which attempts to specify when one or the other of these two processes -- or neither -- will occur, in the general area of social morality.

SIGNIFICANCE

We are not born with values, ideas, and assumptions about appropriate sex-specific behaviors, roles, and morality; they must be learned, in a cultural context. While television is only one of many factors which may influence people, it may well be the single most common and pervasive source of certain sex-related conceptions and actions for large segments of the population.

The proposed research is an extension of our research project, Cultural Indicators, which has been studying trends in the content of dramatic television programs (and recently, commercials) and viewer conceptions of social reality since 1967-68. Our prior and ongoing studies* have established a ten-year data base and have demonstrated the feasibility of this type of research. While violence-related findings have been published most widely, our approach was broadly-based from the beginning to incorporate analyses of the role and functions of many aspects of life presented in the synthetic but coherent world of television. The proposed research builds on our accumulated findings, but takes them a step further, and applies them in new areas, according to theoretical and methodological refinements.

The World of Television

Television is the central and most pervasive mass medium in American culture. Its messages form the first mass-produced and organically composed symbolic environment into which children are born and in which they will live from cradle to grave. Television is a total cultural system with its own art, science, statecraft, legendry, geography, demography, character types, and action structure.

No other medium or institution since pre-industrial religion has had a comparable potential to influence what people of a tribe, community, or nation have learned, thought, or done in common. Over 4 million hours of programming a year are discharged into the mainstream of common consciousness to claim the time and attention of 200 million Americans. The world of television encapsulates those selected features of the larger media culture that lend themselves best to its basic sales and socializing functions. Different time and program segments complement each other as they present aspects of the same symbolic world.

The heart of the analogy of television and religion, and the similarity

---

* These have been supported by the National Commission on The Causes and Prevention of Violence, the Surgeon General's Scientific Advisory Committee on Television and Social Behavior, the National Institute of Mental Health, the American Medical Association, the White House Office of Telecommunications Policy, the Administration of Aging, the National Science Foundation, and other agencies.

of their social functions, may lie in the ritualistic repetition of patterns which define the world and legitimate the social order. There is little age, regional, or even ethnic separation of the symbolic materials which socialize members of an otherwise heterogeneous community into a common culture.

A New Research Direction

Television is the chief creator of synthetic cultural patterns. As such, it serves primarily to maintain, stabilize, and reinforce -- not subvert -- conventional values, beliefs, and behaviors. Socially constructed "reality" gives a coherent picture of what exists, what is important, how things are related, and what is right. The stories of the dramatic world need not present credible accounts of what things are to perform the more critical function of demonstrating how things really work. The illumination of the invisible relationships of characters and dynamics of life has always been the principle function of drama and fiction. Television today serves that function in its nearly universal use as a demonstration of social reality.

The vast bulk of scientific inquiry about television's social impact can be seen as directly descended from the theoretical models and the methodological procedures of marketing and attitude change research. Large amounts of time, energy, and money have been spent in attempts to determine how to "change" people's attitudes or behaviors. People believe "X"; how do you get them to believe "Y"? Or, people do "X"; how do you get them to do "Y"? The X's and Y's have ranged from such diverse topics as authoritarianism vs. egalitarianism, one brand of toothpaste vs. another, or one political candidate vs. another.

Research on television's potential to stimulate the imitation of aggressive acts is a good example. The hypothesis which has generated so much research and public concern illustrates this unrecognized conceptual framework, in which it is assumed that some change from X to Y constitutes an "effect." We are used to thinking this way about most television research questions: Does television viewing harm academic achievement, such that students would perform better scholastically without it? Does television perpetuate racial, sex-related, and age-related images, such that people would hold fewer stereotypes without it? Does television decrease the quantity and quality of family and interpersonal interaction, such that there would be more and better interaction without it?

We, however, do not feel that this paradigm (and the type of question it generates) provides the only approach to studying television's "effects." Rather, our theoretical formulations and recent results reveal that stability (or even resistence to change) may be a critical outcome of viewing. Thus, we focus on the obvious but overlooked question: Is it possible that rather than (or in addition to) "changing" people from X to Y, television is absorbing and assimilating a range of outlooks and perspectives of "otherwise" divergent viewers into a homogeneous "mainstream" commonality of outlooks?

The idea itself is not new. It has been expressed at various times by researchers, social commentators, educators, and others. In 1956, Bogart wrote:

> With no other form of impersonal communication has the sharing of experience been possible on so universal a scale and to so intense a degree as with television (p. 2).

Similar sentiments were offered by Glynn (1956, p. 181):

> Television can be seen as the great destroyer of provincialism. Television can produce a nation of people who really live in the world, not in just their own hamlets.

In 1957 Seldes wrote of television as taking an "active part" in "the whole direction of our lives...toward greater conformity," and that "the electronic revolution has already coalesced the teenager and the grownup completely and is making some headway in bringing the child into line, too" (p. 16). He also hints about the consequences of universal exposure to the same dramatic world:

> We must be careful here not to be led astray by the apparent range and variety of the programs we see and hear.... (M)ost of these superficially different materials are treated in such a way that they appeal to the same general level of intelligence, education, and emotional maturity.... The amount of attention, the background of knowledge and experience, the degree of emotional understanding required to appreciate one kind of program are substantially the same as for another. That is why the mass media can be used to create homogeneity, even under a competitive system (Seldes, 1957, p. 52; emphasis in original).

More recently, the process of cultural homogenization has been almost taken for granted, even framed as self-evident:

> Television's impact on American society consists partly in its spectacularly successful continuation of a trend started by other media, of developing content designed to create and attract massive audiences composed of people from all regions, classes, and backgrounds. Analytically, one of its most potent effects on American society -- the provision of a centrally produced, standardized, and homogeneous common culture -- is as much an artifact of how this medium's technological capacity has been organized as it is the inevitable result of the technology itself (Hirsch, 1979, p. 249; emphasis in original).

Our own publications have extensively discussed how "television spreads the

same images and messages to all from penthouse to tenement" and argued that television is "the chief source of repetitive and ritualized symbol systems cultivating the common consciousness of the most far-flung and heterogeneous mass publics in history" (Gerbner and Gross, 1976).

Save for our own prior explorations (Gerbner, et al., 1980) the concept of mainstreaming has not been addressed directly. A few other studies, however, provide indirect empirical evidence.*

Eastman and Liss (1980) compared the program and character preferences of 9-12 year old children in four geographically diverse areas: Paterson, New Jersey; Lexington, Kentucky; Lincoln, Nebraska; and Austin and Lockhart, Texas. They interpret their data as supporting

> the sociological assumption that American children are fairly homogeneous, at least with respect to media preferences.... This reinforces the belief that television is a prime vehicle for providing similar experiences for children in generally different areas.

Tan and Vaughn (1976) had expected to find a positive relationship between media exposure and militancy among black high school youth. They were surprised to find the opposite -- a negative association -- and speculated that greater media exposure may imply "socialization in the direction of support for the dominant society."

The concept of "resonance" is similarly rooted in previous speculation, theory, and research. Yet conceptually, it is at once both simpler and subtler than "mainstreaming." The simplicity of the concept of resonance lies in the "common-sense" appeal of its formulation. The cultivation of conceptions of social reality will be most evident when television's messages do not conflict with other messages in the viewer's environment. For example, it is more likely that heavy viewing will accompany greater fear and overestimates of victimization if one lives in a high-crime, urban area (where the notion of crime is probably more salient) than if one lives in a peaceful rural community (see Gerbner, et al., 1980).

The subtlety of the concept derives from its apparent resemblance to such notions as "reinforcement." Indeed, it represents a synthesis of various concepts and traditions, but attempts to evolve and advance beyond them. In the early days of television research, the idea of "predispositions" was employed to dismiss media effects; it was often held, apologetically,

---

* Although our hypotheses about cultivation cannot fully be tested in a laboratory situation, experiments are useful for demonstrating that an alleged phenomenon can occur. Two recent experiments (Tan, 1979; Bryant, et al., 1981) have produced results which support our general ideas about cultivation.

that television "merely" reinforces pre-existing attitudes and inclinations (see Seldes, 1957, pp. 49-50; Comstock, et al., 1978, p. 388). But even then, some commenters (Seldes, 1957; Glynn, 1957) considered the possibility that the interaction between mediated and unmediated messages might be of a more complex nature -- that is, real-life experiences could be colored and conditioned by earlier media exposure.

There is also evidence that degree of experience with reality need not necessarily reduce how much credibility is ascribed to television portrayals; Greenberg (1972) reports that white children who believe television blacks to be "real-to-life" are more likely to have had actual contact with blacks. In this light, the notion of "mere reinforcement" becomes untenable.*

"Resonance" also shares the assumption from "uses and gratifications" research that what the viewer brings to the viewing experience will affect media's effects. But it does not need to embrace the argument of an active, information-seeking viewer. (Nor does it need to reject it.) Rather, it simply assumes that people acquire information in various ways; while resonance means that television will have more influence when its messages are congruent with environmental factors, it acknowledges that the two are not independent forces. Both are part of a larger, ongoing system with mutually supporting aspects. In this sense, we differ only slightly from Hornik, et al. (1980) who contend that:

> If the direction of local guidance is essentially consistent with the message of televised content, exposure to television will reinforce the local guidance, and there will be a positive relation between television exposure and actions taken. If on the other hand, local guidance is essentially contradictory to the televised messages, we expect no such relation. We hypothesize that televised messages are accepted only insofar as the local environment either reinforces its message, or, provides no guidance at all on the issue.

The number of examples of resonance is growing. As noted above, heavy viewers who live in urban areas with arguably high crime rates show the strongest cultivation of fear. We have also found (Gerbner, et al., 1980) that television cultivates the belief that "the elderly are more likely to be the victims of crime than any other age group" (which is true on television, but contrary to the facts) only among those over 55. We interpret this as evidence that this message is more salient for older people; the combination of heavy television exposure and this salience "resonates" and amplifies cultivation.

---

* We are not implying that cultivation requires any conscious level of perceived reality.

Gonzalez (as reported in Hornik, et al., 1980) found that younger people are more susceptible to the cultivation of negative stereotypes about the elderly. But even within the under-30 age group, intriguing specifications emerge; the association is particularly strong among young people who have more contact with older people (their grandparents) and whose contact involves providing help of various kinds, because of illness, etc. In their words, these respondents were in an "environment reinforcing TV's message" condition. Among those whose grandparents are presumably better-off and healthier, the relationship is much weaker.

As a final example, longitudinal analysis of the relationship between amount of viewing and adolescents' aspirations (Morgan, 1980) shows a stronger positive influence of television among students with higher IQ's. Presumably, high IQ students receive numerous messages about how far they should go in school and the kinds of careers they should enter; these messages represent "predispositions" toward higher aspirations. At the same time, the world of work they see on television is dominated by professionals. Accordingly, high IQ students may "resonate" to the "double dose" of these messages; as they watch more television, over time, they are particularly likely to report the desire for more schooling and jobs with higher prestige.

In sum, the most general significance of the proposed research will be that it will provide the first explicit empirical analysis of television's capacity to contribute to cultural homogeneity, and of the complementary process of special susceptibility, in areas of crucial relevance to the context of life in the United States -- social morality and conceptions of sex-roles and sexuality. It will test the assumption that most between-group differences in the intensity of cultivation patterns can be explained by these two concepts. Resonance will help us understand the role of real life experience in the cultivation process. Most of all, we expect to show that the assimilation of the values, perspectives, and actions of "otherwise" heterogeneous groups, and their convergence into a more standardized, uniform mainstream, may be the critical consequence of living with television.

BACKGROUND

In this section we will sketch some of the major content findings, from a few of the most recent studies relating to sex-roles and sexuality, which will guide the cultivation analyses. Following that, we will discuss specific theoretical considerations and research findings underlying the proposed study.

From its earliest days television has been the focus of content analyses, many of which have isolated various notions of sex-role and male-female portrayals. The most basic and consistent finding of this research is that television presents a traditional and stereotypical view of gender roles and relationships, and that women are most often seen in home and family settings.

Courtney and Whipple's (1974) comparative analysis of four studies of commercials reveals a striking consistency in the portrayal of women: they live in a domestic world as young housewives serving husbands and children and are concerned excessively with cleanliness and food. On the other hand, men in commercials are older, and authority figures; they advise and demonstrate and are shown in a wider range of settings and roles.

Other studies about women have focused exclusively upon children's and family programs. Long and Simon (1974) found that females in these shows are portrayed as either wives or mothers and that married female characters are not otherwise "employed." Hashell (1979) found that although the women in prime-time dramatic programs whose principal characters are women (e.g., "Alice," "One Day at a Time," "Charlie's Angels," etc.) hold jobs and support households without male assistance, most of the topics of discussion are "traditionally female," dealing with romance, personal appearance, dating, and divorce.

Greenberg and his associates (Greenberg, 1980) have reported that although male characters are more likely to originate authority orders than are females, males more regularly explained or justified these orders. In regard to the giving and receiving of orders, these authors found a consistent pattern of male-giving, male-getting in three seasons of dramatic television programs, especially in crime/adventure shows. In situation comedies, however, women not only appear in greater equity with men, but they are actually more likely to give than to receive orders. Greenberg, et al. conclude that:

> Apparently, for script writers and producers, women may have equity with men in comic situations; indeed, they may even acquire dominance in comic situations. Women will, however, still find themselves in emotional trouble more often, seeking help and getting help, and they'll not find themselves any more successful in their order-giving postures (p. 86).

Finally, Manes and Melnyk (1974) found that in Canadian dramatic

programming full-time housewives have more successful marriages than working wives. Furthermore, working women, as compared to working men, are more likely to be unmarried. The few successfully married working women often are, however, not independent or "true" workers -- they appear to be ready to quit their jobs or are willing to work for their husbands.

Our ongoing research project, Cultural Indicators, has also examined trends in sex-role portrayals in network dramatic programming (Gerbner and Signorielli, 1979; Signorielli, 1974, 1979, 1980). Echoing the results of many other studies (cf. Busby, 1975), one of the most important findings of our research is that the world of prime-time (and weekend-daytime) television is overwhelmingly male. Our annual samples of programs aired between 1969 and 1979 reveal that the world of television is populated by approximately three males for every female. Out of 4330 major characters, 3222 (74.4%) are male. The average for all sample years is 73.6% (s.d.=3.5%). Detailed analyses of year-by-year trends reveal consistency and stability year in and year out, for each female portraying a major role, three males are similarly cast.

The television population is also made up primarily of characters in the young to middle years of life. There are very few children or adolescents (6 percent) and even fewer elderly characters (2.7 percent). Moreover, females are generally portrayed as younger than their male counterparts -- proportionately more females than males are cast as children-adolescents and young adults, while a greater proportion of male characters than female characters portray settled adult or elderly roles. Within each social age classification, except children and adolescents, the estimated chronological age of female characters is younger than that of male characters (Gerbner, et al., 1980a).

Moreover, notions of home, family, and romance are much more developed in female characters. For example, the proportion of females whose marital status cannot be determined is considerably smaller than the corresponding proportion of male characters. On prime-time network dramatic programs from 1969 to 1979, only 9.2 percent of females could not be coded on marital status (45.2 percent are classified as not married, and 45.6 percent are married or formerly married). In contrast, one quarter of the male characters (24.3 percent) are of unclear or ambiguous marital status (45.3 percent are not married and 30.4 percent are married).* These are ten-year figures; the year-to-year differences are slight.

Thus, females are underrepresented but more likely to be explicitly shown as married. Romantic involvement in prime time tells a similar story; about half of the women, but only one-third of the men, are portrayed as

---

* By comparison, in 1975, among all men, only 26.1 percent were single and 73.8 percent were or had been married; among women 20.6 percent were single and 79.4 percent were married or formerly married (Statistical Abstracts of The United States, 1978, U.S. Dept. of Commerce, Bureau of the Census, p. 80).

being involved in some romantic situation or behavior. These patterns do not vary for male and female characters of different races. Although the themes of home and family appear far less frequently on weekend-daytime programs, there is an important parallel with prime time in the characterization of the sexes: explicit information about marital status is rarely given for males and is more often given for females.

We also find in prime time that more than one-quarter of the women but only 4.1 percent of the men are shown performing some type of homemaking activity; proportionately more women than men are portrayed as having children, or as caring for children under 18 years of age. Finally, the concept of family life is portrayed as important for more female characters than male characters; it is important for 59.3 percent of the women as compared to only 38.3 percent of the men.

Finally, while many women -- at least a quarter -- are not portrayed as having an occupation, those who are employed are not often cast in positions of power or responsibility. Men, on the other hand, are often found in roles conveying considerable power, importance, and responsibility and are less tied to home and family.

Our long-term TV message analyses thus reveal that the men and women who populate dramatic television programs are usually portrayed in traditional and stereotypical ways. First, women are seen less frequently than men and thus, are seen as less important. Second, when women do appear, they usually are younger than the men; they are also more attractive and nurturing and are quite often portrayed in the context of home and family. They are much more likely to be married, but if married, they usually are not employed. Those women who are employed are more than likely cast in traditionally female occupations -- nurses, secretaries, waitresses, and sometimes teachers. Men, on the other hand, are generally portrayed as somewhat older. They tend to be more powerful and potent than the women and proportionately fewer are portrayed as married. Significantly, more men are employed and they are usually working in high prestige and traditionally masculine occupations such as doctors, lawyers, policemen, and other professionally-oriented jobs.

Moreover, among married male characters, about three-quarters are employed and one-quarter are not working or their employment status is unknown. Among women, however, the pattern is reversed -- less than 20 percent of married female characters are also portrayed as employed, a finding quite different from the "real world" in which almost half of all married women are employed. Thus, the image conveyed by television is that women, especially if married, stay home and leave the world of work up to men.

Women are also not generally presented as able to mix home-making activities with other interests and activities, such as succeeding in a job. If anything, the employed woman usually is characterized as unsuccessful on the home front. These conflicts are almost never part of male characterizations -- males are both married and employed and seem to succeed

in both. However, married men are somewhat more likely to be portrayed as less important and less powerful than their unmarried counterparts.

Sexuality

The few content analyses of the frequency and nature of sexual behaviors on television must be compared with caution, inasmuch as they tend to employ different -- even contradictory -- definitions and coding schemes. Nevertheless, one finding unambiguously stands out: sexual behaviors and references are becoming much more common on television.

Franzblau, et al. (1977) analyzed programs from the 1975 television season, finding that the little sexuality presented was most concentrated in situation comedies. Fernandez-Collado, et al. (1978) examined programs from the 1976 season, and reported an enormous increase in the frequency of televised sexual behavior. This finding may be partially, but not entirely, due to differences in instrumentation. Silverman, et al. (1979) found further increases in the 1977 season, particularly in terms of flirtatious behaviors and sexual innuendos.

According to Gerbner (1980), in 1978 the percentage of programs containing some depiction or discussion or sexual behavior continued to increase, as did those with some reference to homosexual or bisexual behavior, premarital or extramarital sex, and nudity. Publicly acceptable sexual behaviors such as kissing and embracing became more explicit as well as more common.

Roberts (1980a) notes that television's representation of the erotic dimension of sexuality is most often presented in subtle (and not so subtle) innuendo and provocative flirtation that is often accompanied by canned laughter. Moreover, television equates human sexuality with sexiness and the overwhelming message is that sexiness is acceptable if it is cloaked in humor or accompanied by violence (Franzblau, 1979).

But while television may be becoming more sexy, it is critical to recall that it is not becoming less sexist. The mixing of sex with violence has increased. Nudity and other forms of dependency are still female, and most power is vested in males. Silverman, et al. (1979) reported that television females are more likely to be "seductive," while males are more likely to be "aggressive." Thus, we must not confuse "liberalization" with a reduction of exploitation. If anything, the deceptively "liberal" openness may represent an intensification of resistance to change. Sexual domination, trivialization, and erotic reification of women may serve the same symbolic functions as violence -- which shows females more likely to come out as the victim of a violent encounter.

A Growing Divergence

A substantial body of research has thus found a striking consistency in the limited representation and negative portrayals of women on television.*

---

* In addition to our analyses and the studies cited above, parallel results have been reported by O'Kelly (1974), Welch, et al. (1979), McNeil (1975), Mayes and Valentine (1979), Verna (1975), Dominick and Rauch (1972), and in virtually every page of Tuchman, et al. (1978).

That mass media in general and television in particular either exclude women or restrict them to narrow and traditional roles may be all but over-documented. There have been some surface, "token" changes, but they are deceptive. For example, in the late 1970's, more women were appearing in leading roles, but female characters continued to represent less than a third of the television population and critical aspects of their portrayal remained constant (Gerbner and Signorielli, 1979). Their presence in a story still tends to be in a role that merely furthers a romantic interest. They are still shown as married far more often than are men. They are still over-victimized and they still are not shown as equals in the workplace.

Yet, there is growing evidence that the public's attitudes towards sex-roles are changing. Mason, et al. (1976) analyzed five national surveys from 1964-1974 and found considerable movement towards egalitarianism. Support for the conventional sexual division of labor has been diminishing, in both economic and family realms.

The loosening of traditional role prescriptions has been confirmed in the latest results of an 18-year longitudinal study of 1000 Detroit women, conducted by the Population Studies Center of the University of Michigan (New York Times, November 23, 1980, p. 68). For example, the proportion of women who believe that the man of the household should make the major family decisions has changed from 66 percent in 1962 to 28 percent today. Similarly, the number of women who find it acceptable for a woman to be very involved in outside activities before her children are grown has increased from 44 to 64 percent.

The point is that both overall public opinion and the way people, especially women, are living and working probably reflect a growing balance of educational opportunities, entry into the labor force, expansion of appropriate sex-specific norms and roles, and acceptance of wider variety of life-style alternatives. Yet, the television image has remained limited, demeaning, narrow, and unfavorable. Television portrayals may thus be somewhat "behind the times" in terms of important social trends, perhaps even helping to obstruct, hamper, and retard these trends.

There is also evidence that the growing trend of egalitarianism and liberalization extends to other areas besides sex-roles, in ways highly relevant to the study of the cultivation of conventional morality. According to Smith's (1980) analysis of trends in General Social Surveys, there has been growing tolerance and acceptance in issues such as abortion (1965 to 1978), the dissemination of birth control information in general (1959 to 1977) and even to teenagers (1974 to 1977), premarital sex (1972 to 1978), extra-marital sex (1970 to 1978), and sex education (1970 to 1977). Also, there has been a decrease in reported ideal family size (1936 to 1978).

We thus find that at a time of great societal change, fundamental aspects of the world of television remain stable. The cultivation of "mainstream" beliefs, perspectives, and behaviors should be highly apparent in these areas: those groups most likely to endorse and support counter-stereotypical behaviors (when light viewers) may show the greatest evidence

of cultivation (when heavy viewers). Thus, the proposed study of this process, and the complementary phenomenon of "resonance" (special susceptibility to television's messages) offers a unique opportunity to examine which groups are more likely to be affected by television and why.

Effects studies: Rationales and Findings

Most research about television's contribution to sex-role socialization has focused upon children. In much of this research, it has been assumed that television functions as a potential source of sex-role socialization through observational learning principles. The notion of observational learning was novel when first introduced. Traditional attitude theory held that the main source of attitude formation was direct experience, through implicit and explicit processes of learning from others (Halloran, 1967).

In the middle 1960's however, two theorists, from two different perspectives, challenged the primal necessity of direct interaction as it might influence sex-role acquisition. Kohlberg (1966), from the perspective of cognitive developmental psychology, and Mischel (1966), from a social learning perspective, both theorized that sex-roles can be learned from observation without direct interaction and without immediate reinforcement.

Mischel stressed the roles of live and symbolic models in the acquisition of culturally-appropriate sex-typed behaviors, while Kohlberg emphasized gender identity, or self-categorization as a boy or girl, as the basic organization mechanism of sex-role attributes. Kohlberg argued that children model their behavior after same-sex models to try to maintain stable conditions of their self-worth as a "boy" or "girl."

When it comes to television, however, the alleged emulation of same-sex models becomes problematic. While girls often choose male television characters as those with whom they identify (Reeves and Greenberg, 1977), or as their favorite characters (Morgan and Rothschild, 1978; Eastman and Liss, 1980), or as "people they want to be like when they grow up" (Miller and Reeves, 1976), boys rarely choose females. It may be argued that these discrepancies are due to the wider variety of male roles presented on television; alternatively, both boys and girls are being socialized to prefer male models (see also McArthur and Eisen, 1976; Sprafkin and Liebert, 1978).

This would appear to represent a theoretical dilemma. On one hand, it has been suggested that males and females may "identify" with same-sex models (direct or mediated), whose behavior they subsequently imitate; Miller and Reeves (1976) conclude that since "it is reasonable to assume that children will imitate particular people whom they say they want to be like,...television must be either directly teaching or reinforcing stereotypes." On the other hand, there is some evidence that "identification" is not simply or necessarily isomorphic with the demographic or social characteristics of the viewer.

In order to resolve this paradox, it is necessary to distinguish

between (1) the emulation and subsequent behavioral imitation of a same-sex television character and (2) the cultivation of more general notions about what "men" and "women" are like, which are not necessarily incorporated into the viewer's own self-perceptions and actions.

The proposed research focuses on the latter question, and assumes that the cultivation of a given conception of social reality neither precludes nor necessitates a corresponding cultivation process deriving from demographic similarity with symbolic models. Stated differently, television may cultivate among women certain assumptions and beliefs about what women in general are like or should do, yet these need not be incorporated into a woman's view of herself because she need not "identify" solely with female characters.

This argument is based on a synthesis of various research findings which suggest that television may cultivate generalized notions of sex-roles which are not applied to personal expectations and projections in a manner reflecting same-sex models. Again, most of the research in this area concerns children and young people, but the principles underlying the results should apply to adults as well.

Several studies have related levels of "sexism" to levels of viewing among children. Freuh and McGhee (1975) studied children from kindergarten through sixth grade, finding greater sex-typing among heavy viewers. Beuf (1974) found that heavy viewing three-to-six year olds were more likely to stereotype occupational sex roles than were lighter viewers. Rothschild (1979) found that heavy viewing third and fifth grade children are more likely to stereotype both gender-related activities (e.g., cooking, playing sports, doctoring) and gender-related qualities (e.g., warmth, independence, neatness).

Kimball (1977) studied sex-role attitudes among groups of sixth and ninth-graders at two points in time, two years apart, in three Canadian towns: one town was studied before and after the introduction of television (Notel), one town had a single TV channel throughout (Unitel), and one town had several channels throughout (Multitel). She compared aggregate trends in attitudes reflecting a "tendency to segregate the sexes, socially and psychologically." In Notel, boys' sexim scores increased after the introduction of television; the interpretation of this finding was, however, confounded because boys in Unitel became less sexist. It is not clear whether this reflects "mainstreaming," because there were no changes in Multitel.

Our analyses of a three-year panel of over 200 addlescents demonstrate that television makes an independent longitudinal contribution to the development and maintenance of sex-role stereotypes among girls (Morgan, 1980; Gross and Morgan, in press). For girls, amount of viewing in early adolescence predicts level of sexism in later adolescence, above and beyond the effects of earlier sexism, IQ, and SES. It may be argued that "mainstreaming" explains why a causal influence of television on sexism was only found for girls; boys are generally more sexist than girls regardless

of amount of viewing, while heavy viewing girls' sexism scores ultimately approach those of boys.

Signorielli (1979) reports a similar specification among adults; women are more susceptible to the cultivation of sex-role stereotypes than are men. Her analyses of the 1975, 1977, and 1978 NORC General Social Surveys show yet another intriguing specification. In most groups of respondents, heavy viewers are more likely to say that women should stay home, that a woman should not work if her husband can support her, that men are better suited emotionally for politics, and that they would not vote for a qualified woman nominated for President by their party. Non-whites, on the other hand, who as light viewers score extremely high on the "sexism scale," show a significant negative association between amount of viewing and the tendency to endorse sex-role stereotypes. Among light viewers, 35 percent of whites and 62 percent of non-whites score high on the sexism scale (a difference of 27 points); among heavy viewers, 45 percent of whites but 40 percent of non-whites are high scorers (a difference of only five points). Both associations are significant ($p < .01$). This is a dramatic demonstration of how responses of heavy viewers in "otherwise" divergent groups may be similar, reflecting a more homogeneous "mainstream."

Independent confirmation of this finding comes from Lull, et al. (in press), who report a significant education interaction in the relationship between amount of viewing and "feminism." For those with more education (who are more "feminist"), greater viewing means greater sexism; but for the less educated (who are less "feminist"), heavier viewers are less sexist.

Evidence that the cultivation of a given conception of social reality need not imply a corresponding "identification" with same-sex characters comes from our panel study. Despite the fact that girls show evidence of the cultivation of sex-role stereotypes and despite the marked discrepancy in occupational status along sex lines in the television world (with males in jobs have higher prestige), girls who watch more television show higher occupational aspirations over time. While television may lead girls to believe that, indeed, "women are happiest at home, raising children," they may personally "identify with" and emulate the more powerful, high status males.

All this suggests television's contribution to sex-role socialization may be more than simple "observational learning" based on exposure to same-sex models. Television may present less a reflection of than a counter-attack to the "women's movement" as a social force for changes in the structure of a set of social relations. The change that is actually occurring may spark the dynamics of cultural resistance (Gerbner, 1978) if culture is seen as a system of messages which cultivate images to fit a given structure of social relations. The widening of the gap between actual social reality and television's synthetic reality may lead to a refusal to accept the facts of social reality and to consider the television image as more real. Hence,

we have the process of "mainstreaming": those who as light viewers are most likely to accept non-traditional role behaviors and values, who thus might "otherwise" be the vanguard of a new counter-stereotypical egalitarianism, may be most susceptible to television's "facts of life."

These points also apply to the related and underlying questions of conventional morality and attitudes towards sexuality. In terms of the former, Weigel and Jessor (1973) found that greater "involvement" with television* went with greater conventionality -- defined as "a pattern of thought and action in conformity with the established norms and traditional expectations of the larger society" -- in numerous areas of values, attitudes, and behaviors. (In all, 118 measures were analyzed, covering such topics as values towards "independence," attitudes about "deviance" and "social criticism," and behaviors such as "general deviance" and political activism.)

The authors report positive associations between "involvement" with television and conventionality in almost every comparison, for male and female high school and college students. Interestingly, some of the few exceptions may be consistent with "mainstreaming." For example, on some items regardless of amount of viewing females tended to be more "conventional" while light viewing males seemed less "conventional," and heavy viewing males scored close to all females (more "conventional").

Roberts (1980b) notes that many mothers and fathers believe that television teaches children more about sexuality than teachers, physicians, ministers, relatives, and even peer groups. A recent study of how parents and children communicate about sexuality (Family Life and Sexual Learning) revealed that more than half of the respondents (especially those who were heavy viewers) stated that, other than from themselves, their children learned most about sexuality from television. Moreover, these parents also had little faith in the accuracy of television's sexual portrayals.

Our preliminary explorations of the 1975, 1977, and 1978 NORC General Social Surveys (Gerbner, 1980) provide some suggestive findings about the cultivation of "mainstream" sexual morality. These findings are particularly intriguing for some very important reasons. First, they show that "mainstreaming" does not always imply a process whereby the "upper" classes join the "lower," with the lower holding a given view regardless of viewing levels. Second, they show that "mainstreaming," as all cultivation analysis, derives from television content findings. Third, they show that television's apparent "liberalization" of sexual content is deceptive, perhaps even confirming and intensifying the domination of females in the fictional world.

In general, it is the younger, better educated, more affluent groups who tend to favor liberalization while the older viewers and those with more limited means and cultural opportunities are the most apprehensive of changes in traditional norms. Yet it is in the latter groups that television's

---

* "Involvement" was measured by combining scales of exposure, perceived importance, and perceived influence of television. The operationalization of each of these has some problems; e.g., for perceived influence, it is unlikely that respondents can report whether TV "changed their minds" on something with much reliability or validity. Still, the three subscales were intercorrelated, so we can accept their independent variable, though not identical to ours, with only some reservations.

sexual representations may be having their greatest influence. With all the recent changes towards "liberalization" of sexuality on TV -- whether because of them or despite them -- television seems to be the current mainstream of sexual morality. Viewing makes almost no difference in the sexual attitudes of the "average" viewer, but may bring those with the most restricted and traditional views into the mainstream. In some cases, viewing may even moderate the perspectives of those with the most sexually liberal outlooks.

Favoring sex education has always been an indicator of a more open and enlightened approach to sex. Today 8 out of all 10 people favor sex education (9 out of all 10 young people between 18 and 29) regardless of whether they view little or much television. So for them television makes little difference. However, only 55 percent of older viewers, 57 percent of non-whites, and 61 percent of those who earn less than $10,000 a year favor sex education -- provided they are light viewers of television. For these groups, viewing makes a significant difference. Heavy viewers in the same groups approve sex education 7 or 8 to 10, near to or the same as the general average.

The pattern is similar for those who voice some approval of premarital sex, although the general average is not nearly as high. About half of all respondents agree that premarital sex is sometimes or always all right. Television viewing makes a difference among those who are the least likely to approve of premarital sex: the low income and less educated groups. Among the light viewers in these groups, about 40 percent approve premarital sex. Heavy viewers in the same groups are at the general average rate of approval. At the same time, the counterparts of those groups -- those with higher incomes and more education -- show <u>negative</u> relationships. Two-thirds of the light viewers in these groups approve of premarital sex, while the proportion of heavy viewers who approve approaches the general "mainstream."

Extramarital sex is seldom portrayed approvingly on television. In general, about 3 out of 10 respondents and 4 out of 10 college educated or high income respondents, voice some acceptance of extramarital sex. In these groups, television <u>reduces</u> the rate of acceptance. However, among low income and less educated groups only 2 out of 10 are likely to approve; heavy viewing brings their approval rate up to the general average.

These findings thus suggest that further, more elaborate, investigation of mainstreaming and resonance should make a significant contribution to understanding the impact of television in regard to social morality and sex-roles.

ANALYSES AND HYPOTHESES

This section discusses some methodological considerations in the proposed research, including characteristics of the primary respondent sample, the central dependent and independent variables, assessment of reliability, and analytical techniques. We also present some general predictions in a framework for the systematic investigation of mainstreaming and resonance.

The Sample

The bulk of the analyses in the proposed research will be based on a recently available data base gathered by the Roper Organization for Virginia Slims in October 1979. Other surveys in our data archives may be employed for some replication analysis (e.g., the NORC General Social Surveys contain a few relevant questions about sex-roles and morality), and if other pertinent survey data become available, they will be incorporated into the analysis; but primary attention will be devoted to the "Virginia Slims" data.

The sample is a nationwide cross-section of 3944 adults, and includes respondents from all 48 contiguous states. Quotas were applied for age, sex, and (for women) employment status. Although the sample is three-fourths female, it still includes 984 males.

The samples of men and women are representative of the male and female populations of the U.S., among those who are 18 and older, and exclusive of institutionalized persons (in the military, nursing homes, prisons, etc.). The sampling method involved a multistage stratified probability design based on interviewing locations. Hours for interviews with males were restricted to evenings and weekends to gain proper employment representation. All interviews were conducted in person at the respondents' homes. The sample is eleven percent non-white.

Independent Variables

The central independent variable to be used in this research is self-reported amount of daily television viewing. In the Virginia Slims survey, it was measured with the following item:

> On an average day, about how much time, if any, do you personally spend watching television?

The actual time, in minutes, was coded. Thus we can use the variable as continuous or as ordinal depending upon the criteria of each analysis.

Responses range from zero to fourteen hours a day. The mean is 2.59 hours, with a standard deviation of 1.86 hours and a standard error of 1.79 minutes. The median is 2.0 hours. As usual, the distribution is not normal; it is somewhat skewed to the left (skewness = 1.5) and rather narrow and peaked (kurtosis = 3.98).

While individual answers may be of varying absolute accuracy, it is likely that those who respond "four hours a day" consistently watch more than those who respond "two hours." Thus, we see self-reported amount of viewing primarily as a useful ranking device. Assuming random error, correlations based on this measure will underestimate true relationships (as is usually the case).

Some researchers have argued that measures of overall exposure are too global and imprecise to employ as an indicator of "effects," and have attempted to devise alternative approaches of defining and conceptualizing independent viewing variables.* Moreover, a great many investigators have analyzed the consequences and correlates of exposure to specific programs and specific genres (e.g., Hawkins and Pingree, 1980; Volgy and Schwartz, 1980).

It is quite possible that specific programs may have specific effects. But, our theoretical premise -- that the world of television is a unified, integrated, and coherent system of messages -- demands that we deal with the total amount of time viewers spend "living" in that world and the overall images to which they are exposed. Any differences that exist across content categories may be minimized because heavy viewers watch more of everything; attempts to separate out exposure to discrete program segments are prone to statistical artifacts such as multicollinearity.

Furthermore, we have found that, at least for adolescents, self-reports of viewing levels, in terms of internal homogeneity and unidimensionality, are quite reliable over time. Based on six measurement waves over three years, Cronbach's alpha = .83 (Morgan, 1980).

A test of the validity of self-reported amount of viewing in the Virginia Slims data set was conducted by comparing this variable with the tendency to report frequently "watching TV" as a free-time activity.**

---

* For example, Weigel and Jessor (1973) used an "Index of Involvement"; Rubin (1977) used measures of "affinity" with TV and perceived reality to tap "intensity of attachment"; Dominick (1974) examined "perceived importance" of TV; and McLeod, et al. (1972) used indices of "involvement" with violent programs and "identification" with violent characters.

** Interestingly, more people named watching TV (65.0%) than any other of the 23 choices. Visiting friends was chosen second most often (61.0%).

The simple correlation between the two variables is .34 ($p < .001$). In addition, 37 percent of light viewers, 70 percent of medium viewers, and 85 percent of heavy viewers reported "frequently" watching TV in their free time (gamma = .61).*

While these data help affirm the quality of the measurement of amount of viewing, they also show that even "light" viewers are fairly likely to watch television as a major free-time activity. Even "light" viewers may be watching up to about 10 hours a week. But what distinguishes heavy viewers from light is the extent to which television dominates and subsumes other sources of information and consciousness. Thus, due in part to the pervasiveness of television in our society, we are only able to observe "small" effects in our comparisons of light and heavy viewers. Moreover, we are essentially unable to isolate a true "control" group. Non-viewers are not an appropriate control because they are a tiny and bizarre group (Jackson-Beeck, 1977; Tankard and Harris, 1980). In the Virginia Slims data less than 5 percent of the respondents claim to be non-viewers, and 14 percent of them (27 out of 188) claim they "frequently" watch TV in their free time.

Despite these limitations, we have found in numerous analyses using numerous data bases that amount of viewing consistently explains a small but significant portion of the variance, within and across groups, of people's beliefs, conceptions, and actions. We have argued that the "size" of an effect may be less important than the direction of its steady contribution, and we expect this to be the case in the proposed study. The small effects we are able to observe may shed light on the larger, more elusive, and ultimately ineffable consequences of living with television.

Dependent Variables

Specific analyses will cover a wide range of cultivation areas, potentially including norms, images, and behaviors about marriage and the family, working women, and related issues. The primary emphasis, however, will be on sex-roles and morality.

We will perform extensive reliability analyses of the dependent variables prior to conducting any cultivation analyses. Although indices will be employed for this phase, the cultivation analyses will also examine the individual components. In order to provide the most meaningful and valid tests of mainstreaming and resonance, we expect to focus on a relatively small number of dependent variables, those which produce the most convincing evidence of satisfactory measurement quality.

---

* Light viewers were designated as those watching less than 1½ hours a day (27 percent); medium viewers watch between 1½ and 3 hours a day (47 percent); and heavy viewers watch over 3 hours a day (26 percent). 56 people (1.4 percent of the sample) have missing TV data.

In terms of reliability, two steps are involved. First, the items which are presumed to measure the same underlying dimension will be factor analyzed, to see whether there is more than one significant factor (i.e., with an eigenvalue over 1.0). This will insure the unidimensionality of the dependent scales. Second, assuming a single underlying dimension, we will determine the degree of internal homogeneity (how well the components go together) using Cronbach's alpha. Variables which substantially reduce reliability will be eliminated from the indices. Scales which produce Armor's theta's (equivalent to standardized alpha's) much larger than their raw alpha's will be standardized and weighted by their factor scores to achieve optimum reliability.

Validation tests may vary from index to index, but will generally involve comparisons with demographics. For example, younger, better educated respondents should hold the fewest sex-role stereotypes; older, less educated respondents should be more wary of changes in morality. The various measures of traditionality and conventional morality should also be intercorrelated among themselves. These analyses will help us to determine whether the variables not only measure the same thing, but also whether they are measuring what they seem to be.

The Virginia Slims survey contains a breadth and depth of variables about sex-roles unmatched by any other known and appropriate survey. It will allow us to examine the question of sex-role stereotypes in terms of many more dimensions and sub-dimensions than has been possible previously. Below are some of the dimensions and components with which we will begin reliability analyses leading to analyses of mainstreaming and resonance.

Segregation of the Sexes. Kimball's (1977) Canadian study of television and sex-role stereotypes measured children's tendency to "segregate the sexes, socially and psychologically." The following groups of items, separately or in combination, can be seen as tapping this dimension:

- Household chores: respondents indicated whether each of eleven household chores was something "only boys should be asked to do, only girls should be asked to do, or something either boys or girls should be asked to do?"

  Some of these are "traditionally female," such as washing the dishes, helping with the cooking, and mending clothes; some are "traditionally male," such as taking out the garbage, mowing the lawn, and helping with small repairs around the house. These can be analyzed in at least two ways: (1) simply add up the number of "either boys or girls" responses, as an indicator of diminished concern for a gender-related division of labor, or (2) the number of "one sex only" responses to specific items in the "traditional" direction. In this case, and in all others with the possibility of multiple coding schemes, we will use the format which seems most reliable.

- Sports: Respondents indicated whether they felt each of eight "school or community" team sports should have: (1) separate teams for boys and girls; (2) mixed teams; or (3) teams for boys only.

  These items should also measure any underlying tendency to "segregate the sexes."

- Others: Several individual items may also measure this tendency. They include: perception of the existence of a double standard for men and women; belief that all young persons (male and female) should be required to participate in some national service; degree of respect for a man who stayed home and took care of the children while his wife worked; whether single men and women should enjoy the same freedoms.

Women's Rights/Feminism. Most studies of television and sex-roles have examined "traditional" stereotypes only; few have looked specifically at the other end of the continuum, the tendency to endorse egalitarian statements (an exception is Lull, et al., in press). It is not clear whether holding more "militant" views on feminism and women's rights is the opposite of holding "traditional" views; indeed, they may be oblique dimensions, with low scores on both indicating indifference and complacency. These items will allow us to determine whether, in addition to being more likely to endorse "traditional" stereotypes, heavy viewers are less likely to be feminists.

- Perceptions of discrimination: Respondents indicated whether they feel women are discriminated against in ten different areas, such as education, obtaining top jobs in the professions, the arts, the government, in obtaining credit, etc.

  In our longitudinal analysis of adolescents, we found that responses to the question: "True or false -- society discriminates against women" were significantly influenced by amount of viewing over time. Clearly, the Virginia Slims items will provide much more detailed analyses of perceptions of social discrimination.

- Disturbance by sex-bias: Women in the survey indicated whether they find themselves getting "annoyed a lot," "somewhat" or "hardly at all" by a variety of situations and occurrances which ostensibly insult or demean women. These include: jokes about women drivers, mothers-in-law, or dumb blondes; pictures of nude women in men's magazines; being called a "girl" rather than a "woman"; and bars and restaurants which make a woman uncomfortable unless accompanied by a man.

- Abortion: Attitudes towards abortion should reveal respondents' opinions about women's rights. Several questions deal with whether laws making abortion illegal should be repealed, whether the decision should be left to the woman and her doctor, and whether the father should have the right of veto.

- Others: Various individual items are relevant to this dimension, including stance on the Equal Right Amendment, general position towards the entire "women's movement," and preferred forms of address, both in general (Miss and Mrs. vs. Ms.) and for particular occupations and roles (e.g., chairman, chairwoman, chairperson; policeman, policewoman, police officer, etc.).

Gender Stereotypes. The survey contains a wide range of questions which attempt to evoke respondents' stereotypes about both males and females, in terms of gender-related qualities, dispositions, behaviors, and tendencies. The items about males in particular are extremely valuable; few questions about male stereotypes appear in the research literature. These important analyses will show whether television cultivates stereotypes about men as well as women.

- Admired qualities: Respondents were given a list of 13 qualities and asked which three or four they admired most in a man; then, which three or four they admired most in a woman. The qualities included: intelligence, gentleness, leadership ability, sex appeal, being competitive, being able to express emotions and feelings, etc.

  As with the designation of sex-appropriate chores, numerous coding schemes are possible. With these items, however, normal procedures of reliability assessment are impossible, since the items are not independent observations. Therefore, we will construct various format combinations and use the ones which relate best to demographics such as sex and education.

  For example, one index could measure the tendency to find the same qualities desirable in both sexes; this would be similar to the "segregation of the sexes" variables. Another could focus on the designation of "traditionally male or female" qualities, thereby tapping specific stereotypes more directly.

- Images of Men: Another series of questions deals with perceptions of men and comparisons of men and women. These touch on a variety of "traditional" male behavioral stereotypes and include: "Men enjoy action and excitement more

than women do;" "Most men think only their opinions about the world are important;" "Most men find it necessary for their egos to keep women down." Female respondents noted how accurate they felt ten of these statements to be. Clearly, some of these may also measure "feminism"; the reliability analyses will determine empirically where such items "belong."

- Employer Preferences: The survey asked whether respondents would rather work for a man or for a woman. More interesting than this alone, they were also asked why. The reasons why provide a basis to infer some subtle and underlying gender-related assumptions; for example: "Women are too emotional, too moody;" "Men understand business better;" "Don't like taking orders from a woman."

- Confidence in Men and Women: Respondents were asked whether they would have more confidence in a man or a woman in five different occupations. These tend to be high-stress situations, where a great deal might depend on the performance of the person in the role, such as: "A doctor treating you for a serious injury in a hospital emergency room"; "A pilot on a commercial airplane"; "A lawyer defending you in a suit someone brought against you."

In comparison to this large number of questions which deal with sex-roles in one form or another, there are somewhat fewer items which deal directly with issues of sexuality and morality. Of course, some of the "sex-role" questions apply to morality as well (e.g., items about abortion). The following questions will be analyzed in terms of their relevance to conventional morality. Many of these deal with respondents' projections for the future, in terms of the implications of current social change.

- Premarital sexual intercourse is immoral (agree/disagree)

- It should be legal for adults to have children without getting married (agree/disagree)

- Effects of the "New Morality": The survey includes seven items about the impending consequences of the "New Morality" and increased sexual activity among the young. Respondents' perceptions of the impact of these changes can be inferred from whether they agree with likelihood of 'negative' outcomes (e.g., "The country's morals will break down"; "The institution of marriage will be weakened") or "positive" outcomes (e.g., "It will make for better, more successful marriages").

- Homosexual's Rights: Respondents indicated whether they felt "Homosexuals should be guaranteed equal treatment under the law in jobs and housing" or whether "It should be legal to keep people out of jobs and housing if they are homosexuals."

- Acceptance of Lifestyles for Daughter: Respondents were given a list of behaviors which "some young people find acceptable today" and asked what effects it would have if a daughter of theirs did each. Some of these items may form a Guttman scale:
  - Moving out and living away from home
  - Marrying someone of another religion
  - Marrying someone of another race
  - Living with someone outside of marriage
  - Having a child outside of marriage
  - Having a homosexual relationship
  - Using marijuana
  - Using hard drugs

- Divorce: Attitudes towards divorce should also be indicative of respondents' tendency to endorse conventional morality. Numerous questions deal with approval of divorce at all, and beliefs about who should be responsible for child support, custody, and alimony.

- Other future projections: Reactions to and expectations about the consequences of social change were measured by several other items. One series asks how likely it is that various things may happen by the year 2000; these include: "Children will have more identity and adjustment problems because of the decline of traditional male and female roles in society"; "The idea of marriage to the same person for life will disappear."

  Another series deals with projected advantages and disadvantages the next generation of women will have, and will also allow inferences about whether social and moral changes are seen with openness or with resistance. Twenty-seven advantages and nineteen disadvantages were offered, including: "Women will have more job opportunities;" "Women won't be locked into being wives and mothers"; "Homes and children will suffer because women are out working"; "Women will lose their femininity."

While some of these items in the above lists may not be unambiguously "positive" or "negative" -- e.g., under "New Morality," believing that the

institution of marriage will be weakened does not intrinsically imply that this outcome is perceived as being "bad" -- their interpretation will be clarified when used in conjunction with other questions. For example, some questions deal directly with not only whether respondents think women's status will continue to change, but also whether it should. The analysis of such conjunctions will be an important aspect of the item validation procedures.

Analytical Techniques

The statistical analyses that will be performed to test our hypotheses range from the extremely simple to the methodologically sophisticated. Our simplest analysis involves tabulating the proportion of respondents who give the "television answer" to each question on the basis of television exposure, while controlling for personal and social characteristics. This analysis divides respondents into "heavy," "medium," and "light" viewers (determined by the sample's viewing distribution*) and then compares groups of viewers using two measures -- gamma and what we call the "Cultivation Differential" (CD). The CD is the difference between the percent of heavy viewers who give the television answer and the percent of light viewers who give this answer. The CD thus represents the difference heavy viewing makes with respect to a particular concept.

Our statistical analysis will begin with examining two- to n-way contingency patterns. This procedure will allow us to assess the general differences in the conceptions and/or behaviors of light, medium, and heavy viewers, overall, and for specific subgroups one at a time. Moreover, we will be able to clarify the extent and pervasiveness of an observed relationship and isolate highly susceptible subgroups, as well as provide important information about baseline differences on both independent and dependent measures.

We will then turn to statistical analyses that focus on the functional form of the association and tests for linearity. If we find that relationship(s) does not manifest significant non-linearity (and it usually will not), we will employ more powerful correlational and regression procedures to evaluate television's independent contribution to beliefs, values, and

---

* In the Virginia Slims data, there is no point on the distribution close enough to the 66th percentile to justify an even three-way split. 57 percent report watching under 3 hours a day; 74 percent report watching up to and including 3 hours daily. By designating "medium" viewing as the largest grouping (47%), we increase the precision of the contrast between light (27%) and heavy (26%) viewers. There are still over a thousand respondents (unweighted) in each of the light and heavy groups.

actions. For example, first-order partial correlations will be used to test for spuriousness and hierarchical regression analysis (with amount of viewing entered after all control variables) will provide estimates of television's independent contribution by revealing whether viewing adds a significant increment to total explained variance.

Since crosstabular analyses do not fully guard against the possibility of spuriousness within any given demographic groups, we will also calculate partial correlations for respondents within specific demographic classifications while simultaneously implementing relevant controls. For example, we will examine non-white respondents while simultaneously controlling for their sex, age, education, income, newspaper reading, and so on.

When multiple indicators of a specific concept are available, we will set up complex structural equation models of television's influence and explicitly test the model's goodness-of-fit. This technique will provide estimates of the relationship between true (unmeasured) constructs, measurement error, and residual disturbances in the equations. Other techniques we will employ for specialized analyses include canonical correlation, discriminant analysis, and analysis of covariance.

General and Specific Hypotheses

Our expectations about the findings of the proposed research can be framed as layers of hypotheses and implicit assumptions, nested within increasingly deeper concentric layers. At the core is the hypothesis that greater amounts of television viewing will go with conceptions of social reality which reflect "traditional" values and norms about sex-roles and morality, and resistance to change.

We expect to find these patterns of association with the majority of the dependent variables described above. The procedures for testing this assumption are not particularly problematic; we will determine how many of the dependent variables, from a pre-determined, finite set (based on the reliability analyses) show significant associations with amount of television viewing, in the "expected" direction, overall, and within key demographic subgroups.

At the next level of hypotheses, we expect that there will be systematic variations in the intensity and even in the direction of the associations. While there may be some "across-the-board" relationships, we do not expect the patterns to be identical and invariant for all groups. A variety of other influences will enhance, diminish, condition, reverse, or otherwise mediate the cultivation process.

Yet, we expect that the bulk of the "exceptions" may be explained by either "mainstreaming" or "resonance." There is no intrinsic reason in probability that this should be the case; relationships within subgroups may take on a variety of forms, only some of which are consistent with

mainstreaming or resonance. We hypothesize that the largest proportion of these specifications will fit one of these two models.

A full implementation of a test of this hypothesis is difficult, even impossible, to achieve. A truism of survey analysis is that no list of control variables can be exhaustive; it is generally understood that there might be some other, unconsidered variable which might reveal that an apparent relationship is spurious. In the proposed study, this also means that there might be some unmeasured variable which would generate mainstreaming or resonance.

Our specification analyses will emphasize "major" demographic variables -- sex, age, education, income, race, marital status, urban proximity, newspaper reading. On the level of single group analyses, the proportion of specifications which fit mainstreaming or resonance can be tabulated easily. We will isolate those groups which show differential cultivation patterns, and then apply all other controls simultaneously (usually through within-group partial correlations) to make sure that the apparent specifications are not themselves spurious. The proportion of apparent specifications which hold up under multiple controls, compared to the total number of "exceptions", will reveal the explanatory power of "mainstreaming" and "resonance." We will also test the significance of the interactions in two ways: through analysis of variance, and by entering interaction terms of viewing by demographics into hierarchical regression analyses. (The latter will provide more information about whether the interaction tends to occur along the whole range of the variables' distributions.)

Once we leave the level of analyzing single groups, however, we are faced with some difficult problems. Our belief is that it is insufficient to stop at the point of finding "no overall relationship" and to conclude that evidence for cultivation is spurious; an overall association is the product of subrelationships which may tug and pull at each other in different directions, which may be obscured in the overall result. But just as there may be non-spurious, meaningful specifications which cloud an estimate of an overall association, other factors could be masking an important pattern <u>within a subgroup</u> which shows no "overall" relationship. For example, a given relationship may not hold for males as a group; but controlling for education among males could well illuminate differential patterns which reveal "mainstreaming."

Therefore, we are faced with two choices: either (1) analyze <u>all</u> patterns in <u>all</u> combinations of subgroups for <u>all</u> variables, or (2) predict in advance specifically where and when mainstreaming and resonance will occur, and assess the results on the basis of the specific predictions. The first choice -- a massive inventory of thousands of relationships -- is unfeasible; even from a small number of control variables, the number of possible combinations of groups is too unwieldy to handle efficiently. The second choice runs the risk of missing important patterns that were not predicted.

We propose to approach this analysis by combining these. We will test

the number of instances of "mainstreaming" or "resonance" over all combinations of subgroups for one or two dependent variables. We will then use these results to formulate specific parallel tests for the rest of the dependent variables. This procedure will help insure the integrity of the results by providing for both an assessment of the overall pervasiveness of the specifications and the advance formulation of testable hypotheses.

At the same time, the relevance of individual control variables should and will vary from one analysis to another, and we do not wish to blind ourselves to important, if serendipitous, results. We will, therefore, concurrently search for modifications to operationalized hypotheses in an exploratory framework.

At the final level of hypotheses, we are faced with the most challenging task of all: a paradigm by which to predict whether a hypothesized specification will fit the concept of mainstreaming or whether it will provide an example of resonance. Here the issue of differentially appropriate controls becomes critical. In general, we expect "mainstreaming" to occur under controls for demographic-type variables. We expect "mainstreaming" to be more common than "resonance" under such controls. And we expect that "mainstreaming" will emerge as a more general process, induced by demographic variables which produce wide baseline differences in response patterns.

"Resonance," on the other hand, is expected to be a more focused phenomenon, occurring when other factors provide predispositions towards something. We see these cases of special salience as more than a simple "reinforcement" of television's imagery by environmental factors; it may well be that it is the television reality which "reinforces" one's view of the real world. Of course, this is impossible to test with cross-sectional, and perhaps even with longitudinal, data. In any case, special cases of high congruence between television's messages and everyday reality, as well as logically inferred or empirically demonstrated predispositions, should "resonate" and amplify cultivation.

For example, in terms of sex-role stereotypes, demographic controls should reveal "mainstreaming" with some regularity. Greater cultivation of traditional role stereotypes should be found among those groups whose light viewers are more egalitarian; females, the young, the better educated, etc., should show more evidence of the cultivation of more "sexist" outlooks. In some cases, the counterpart subgroups -- who tend to be more "sexist" -- may show no associations at all. In other cases, some counterpart subgroups with (relatively) extremely sexist views may show negative associations (heavy viewers in these groups may be less "sexist"). Both of these are consistent with mainstreaming (in that there is a convergence or a homogeneity in the outlooks of heavy viewers from disparate groups), but the latter would be more compelling.

Yet we expect that those groups who are most resistant to change, those who are most firmly anchored in conventional morality, will resonate to television's portrayals of sex-roles, and show stronger cultivation patterns. Being against changes in social morality should represent

predispositions which will boost cultivation. Thus, for analyses of resonance, the conditioning variables will tend to be other attitudes and behaviors. As another example, we expect that males who rarely perform "traditionally female" household tasks such as cooking, sewing, and cleaning, will be more likely, if they are heavy viewers, to believe that "girls only" should do such chores.

We are reluctant to over-mechanize and over-simplify these two concepts by formulating or predicting a narrow, rigid model of when and how either or neither may occur. At the same time, we fully expect that the clarification of this problem will be the major outcome of this research.

We are sensitive to the complexity of the question. In offering a "distance" theory of susceptibility to media effects -- briefly, that television will be most influential when the environment is supportive of its messages, or when immediate information is low, and depending on the "need to act" upon the issue -- Hornik, et al., (1980) note that the "myriad of specific instances with quite varied characteristics" makes advance predictions difficult. We believe this to be the case with the investigation of mainstreaming and resonance as well. Still, by narrowing the scope of the dependent variables to those which prove to be most reliable and valid, and by combining approaches in which the total range of patterns will be assessed and applied to the formulation of specific tests, this study will make a significant contribution to understanding the impact of television on society.

In sum, the proposed research will have several strong advantages over previous research. First, it will draw upon an extraordinarily rich data source which contains a broad range of dependent and conditioning variables, of greater depth and diversity than other available surveys. Second, it will build upon a cumulative eleven-year data archive of television characters which allows interpretations of the most stable, underlying aggregate messages of the television world (most previous research on the role of television in sex-role socialization has been limited to linking a specific aspect of content with "effects" to focus upon a specific issue or question*). Third, it will subject the constructs of "mainstreaming" and "resonance" to empirical tests and thereby provide the basis for a more complete understanding of television's impact in regard to these crucial issues.

---

* Much of the previous work on television and sex-role stereotypes has utilized selected aspects of programming. For example, Miller and Reeves (1976) attempted to determine the impact of isolated counter-stereotypical sex-role portrayals; Atkins and Miller (1975) experimentally manipulated specially prepared commercials; and Mayes and Valentine (1979) used selected cartoons.

REFERENCES

Atkins, Charles and Mark Miller. "The Effects of Television Advertising on Children: Experimental Evidence." Paper presented to the International Communication Association, Chicago, April 1975.

Beuf, Ann. "Doctor, Lawyer, Household Drudge." Journal of Communication, 1974, 24, 142-145.

Bogart, Leo. The Age of Television. New York: Ungar, 1956.

Bryant, J., R.A. Carveth, and D. Brown. "Television Viewing and Anxiety: An Experimental Examination." Journal of Communication, Winter 1981, 31(1), 106-119.

Busby, L.J. "Sex-Role Research in the Mass Media." Journal of Communication, 1975, 25(4), 107-131.

Courtney, A.E. and T.W. Whipple. "Women in TV Commercials." Journal of Communication, 1974, 24(2), 110-118.

Dominick, Joseph R. "Children's Viewing of Crime Shows and Attitudes towards Law Enforcement." Journalism Quarterly, 1974, 51, 5-12.

Dominick, Joseph R. and Gail E. Rauch. "The Image of Women in Network TV Commercials." Journal of Broadcasting, 1972, 16(3), 259-265.

Eastman, Harvey A. and Marsha B. Liss. "TV Preferences of Children from Four Parts of the U.S." Journalism Quarterly, Autumn 1980, 57, 488-491.

Fernandez-Collado, D.F. and B.S. Greenberg, with F. Korzenny and C.K. Atkin. "Sexual Intimacy and Drug Use in TV Series." Journal of Communication, Summer 1978, 28(3), 30-37.

Franzblau, S. "Sexuality on the Screen," in B. Logan and K. Moody, eds., Television Awareness Training, 2nd ed. New York: Media Action Research Center, 1979.

Franzblau, S., J.N. Sprafkin, and E.A. Rubinstein. "Sex on TV: A Content Analysis." Journal of Communication, Spring 1977, 27(2), 164-170.

Freuh, Terry and Paul E. McGhee. "Traditional Sex-Role Development and Amount of Time Spent Watching Television." Child Development, 1975, 11, 109.

Gerbner, George. "The Dynamics of Cultural Resistance," in G. Tuchman, A.K. Daniels, and J. Benet, eds., Hearth and Home: Images of Women in the Mass Media. New York: Oxford University Press, 1978.

Gerbner, George. "Sex on TV and What Viewers Learn from It." Paper presented to the National Association of Television Program Executives Annual Conference, San Francisco, February 1980.

Gerbner, George and Larry Gross. "Living with Television: The Violence Profile." Journal of Communication, 1976, 26(2), 172-199.

Gerbner, George and Nancy Signorielli. "Women and Minorities in Television Drama 1969-1978." The Annenberg School of Communications, October 1979.

Gerbner, George, Larry Gross, Nancy Signorielli, and Michael Morgan. "Aging with Television: Images on Television Drama and Conceptions of Social Reality." Journal of Communication, Winter 1980(a), 30(1), 37-47.

Gerbner, George, Larry Gross, Michael Morgan, and Nancy Signorielli. "The 'Mainstreaming' of America: Violence Profile No. 11." Journal of Communication, Summer 1980, 30(3), 10-29.

Glynn, E.D. "Television and the American Character: A Psychiatrist Looks at Television," in W.Y. Elliot, ed., Television's Impact on American Culture. Lansing: Michigan State University Press, 1956.

Greenberg, Bradley. Life on Television. Norwood, New Jersey: Ablex, 1980.

Gross, Larry and Michael Morgan. "Television and Enculturation," in J.R. Dominick and J. Fletcher, eds., Broadcasting Research Methods: A Reader. Boston: Allyn and Bacon, in press.

Halloran, J.D. Attitude Formation and Change. Leicester: Leicester University Press (Television Research Committee Working Paper #2), 1967.

Hawkins, Robert and Suzanne Pingree. "Some Processes in the Cultivation Effect." Communication Research, April 1980, 7, 193-226.

Hashell, D. "The Depiction of Women in Leading Roles in Prime-Time Television." Journal of Broadcasting, 1979, 23(2), 191-196.

Hirsch, Paul. "The Role of Television and Popular Culture in Contemporary Society," in H. Newcomb, ed., Television: The Critical View, 2nd ed. New York: Oxford University Press, 1979.

Hornik, Robert, Mark Gonzalez, and Jane Gould. "Susceptibility to Media Effects." Paper presented to the International Communication Association, Acapulco, May 1980.

Jackson-Beeck, Marilyn. "The Non-Viewers: Who Are They?" Journal of Communication, 1977, 27, 65-72.

Kimball, Meredith M. "Television and Children's Sex-Role Attitudes," in T.M. Williams, Chair, The Impact of Television: A Natural Experiment Involving Three Communities. Symposium of the Canadian Psychological Association, June 1977.

Kohlberg, L. "A Cognitive Developmental Analysis of Children's Sex-Role Concepts and Attitudes," in E.E. Maccoby, ed., The Development of Sex Differences. Stanford: Stanford University Press, 1966.

Long, M.J. and R.J. Simon. "The Roles and Statuses of Women on Children's and Family Programs." Journalism Quarterly, 1974, 51(1), 107-110.

Lull, James, Anthony Mulac, and Shelley L. Rosen. "Feminism as a Predictor of Mass Media Use." Sex Roles, in press.

Manes, A.L. and P. Melynk. "Televised Models of Female Achievement." Journal of Applied Social Psychology, 1974, 4(4), 365-374.

Mason, K.O., J.L. Czajka, and S. Arber. "Change in U.S. Women's Sex-Role Attitudes 1964-1974." American Sociological Review, 1976, 41(4), 573-596.

Mayes, S. and K. Valentine. "Sex-Role Stereotyping in Saturday Morning Cartoon Shows." Journal of Broadcasting, Winter 1979, 23, 41-50.

McArthur, Leslie Z. and Susan V. Eisen. "Television and Sex-Role Stereotyping." Journal of Applied Social Psychology, 1976, 6(4), 329-351.

McLeod, Jack M., Charles K. Atkin, and Steven H. Chaffee. "Adolescents, Parents, and Television Use," in G.A. Comstock and E.A. Rubinstein, eds., Television and Social Behavior, Vol. III. Washington: GPO, 1972, 173-313.

McNeil, Jean C. "Feminism, Femininity, and the Television Series: A Content Analysis." Journal of Broadcasting, 1975, 19(3), 259-271.

Miller, M.M. and B. Reeves. "Dramatic TV Content and Children's Sex-Role Stereotypes." Journal of Broadcasting, 1976, 26(1), 35-60.

Mischel, Walter. "A Social Learning View of Sex Differences in Behavior," in E.E. Maccoby, ed., The Development of Sex Differences. Stanford: Stanford University Press, 1966.

Morgan, Michael. "Longitudinal Patterns of Television Viewing and Adolescent Role Socialization." Unpublished Ph.D. dissertation, University of Pennsylvania, 1980.

Morgan, Michael and Nancy Rothschild. "Television and Children at a New York Private School." Working Paper, The Annenberg School of Communications, 1978.

O'Kelley, Charlotte G. "Sexism in Children's Television." Journalism Quarterly, 1974, 51(4), 722-724.

Reeves, Byron and Bradley S. Greenberg. "Children's Perceptions of Television Characters." Human Communication Research, 1977, 3(2), 113-127.

Roberts, Elizabeth J. "Television and Sexual Learning in Childhood" (1980a), in National Institute of Mental Health, Television and Behavior: Ten Years of Scientific Progress and Implications for the 80's, forthcoming.

Roberts, Elizabeth J. Social Influences on Sexual Learning in Childhood (1980b). Population Education Inc., Cambridge, Mass., forthcoming.

Rothschild, Nancy. "Group as a Mediating Factor in the Cultivation Process Among Young Children." Unpublished M.A. thesis, The Annenberg School of Communications, 1979.

Rubin, Alan M. "Television Usage, Attitudes, and Viewing Behaviors of Children and Adolescents." Journal of Broadcasting, 1977, 21(3), 355-369.

Seldes, Gilbert. The New Mass Media: Challenge to a Free Society. Washington: American Association of University Women, 1957.

Signorielli, Nancy. "Marital Status in TV Drama: A Case of Reduced Options." Presented to the International Communication Association, Acapulco, Mexico, May 1980.

Signorielli (Tedesco), Nancy. "Patterns in Prime Time." Journal of Communication, Spring 1974, 24(2), 19-24.

Signorielli, Nancy. "Television's Contribution to Sex-Role Socialization." Presented at the Seventh Annual Telecommunications Policy Research Conference, Skytop, Pennsylvania, April 1979.

Silverman, L. Theresa, Joyce N. Sprafkin, and Eli A. Rubinstein. "Physical Contact and Sexual Behavior on Prime-Time TV." Journal of Communication, 1979, 29(1), 33-43.

Smith, Tom. A Compendium of Trends on General Social Survey Questions. Chicago: National Opinion Research Corporation, Report No. 129, 1980.

Sprafkin, Joyce N. and Robert M. Liebert. "Sex-typing and Children's Television Preferences," in G. Tuchman, A.K. Daniels, and J. Benet, eds., Hearth and Home: Images of Women in the Mass Media. New York: Oxford University Press, 1978.

Tan, Alexis. "TV Beauty Ads and Role Expectations of Adolescent Females." Journalism Quarterly, 1979, 56, 283-288.

Tan, Alexis and Percy Vaughn. "Mass Media Exposure, Public Affairs Knowledge, and Black Militancy." Journalism Quarterly, 1976, 53, 271-279.

Tankard, J.W. and M.C. Harris. "A Discriminant Analysis of Television Viewers and Non-Viewers." Journal of Broadcasting, 1980, 24(3), 399-409.

Tuchman, Gaye, Arlene Kaplan Daniels, and James Benet (eds.). Hearth and Home: Images of Women in the Mass Media. New York: Oxford University Press, 1978.

Verna, Mary Ellen. "The Female Image in Children's Television Commercials." Journal of Broadcasting, 1975, 19, 301-309.

Volgy, Thomas J. and John E. Schwartz. "TV Entertainment Programming and Sociopolitical Attitudes." Journalism Quarterly, 1980, 57(1), 150-155.

Weigel, R.H. and R. Jessor. "Television and Adolescent Conventionality: An Exploratory Study." Public Opinion Quarterly, 1973, 37, 76-90.

Welch, R.L., A. Huston-Stein, J.C. Wright, and R. Plehal. "Subtle Sex-Role Cues in Children's Commercials." Journal of Communication, 1979, 29(3), 202-209.

BUDGET

	Percent Time	Salary	Benefits	Total
George Gerbner	8 %	$ 3,500	$ 781	$ 4,281
Larry Gross	11 %	4,000	892	4,892
Michael Morgan	25	5,000	1,005	6,005
Nancy Signorielli	20	5,700	1,146	6,846
Debra Giffen	20	2,700	805	3,505
Kendall Whitehouse	20	2,000	595	2,595
Sheryl Moore	20	1,700	507	2,207
Graduate Assistant (20 hrs/week for 40 weeks @ $5.75/hr.)		4,600	391	4,991
Total Personnel		29,200	6,122	35,322
Computer				12,000
Travel				300
Supplies				750
Xerox/Duplication				1,000
Report Preparation				500
TOTAL DIRECT COSTS				49,872
Overhead (50% of direct costs)				24,936
TOTAL				74,808