# *UNIVERSITY of PENNSYLVANIA*

PHILADELPHIA 19104

OFFICE OF RESEARCH ADMINISTRATION
ANTHONY MERRITT, *Director*

(AREA 215) 243-7293
409 FRANKLIN BUILDING
3451 WALNUT STREET I6


June 22, 1982

U.S. Public Health Service
Division of Research Grants
National Institutes of Health
5333 Westbard Ave.
Bethesda, MD 20205

Re: Proposal entitled "TV's Contribution to Conceptions About Aging and Health"

Ladies and Gentlemen:

Enclosed are copies of a proposal for the referenced project to be conducted under the direction of Dr. George Gerbner, Professor of Communications and Dean in the Annenberg School of Communications.

The proposal has been signed on behalf of the University of Pennsylvania by appropriate University officials.

Sincerely,

Pamela S. Benedon

Pamela S. Benedon
Contracts Administrator

PSB/rs
Encl.

cc: Dr. Gerbner
82-1570/1733/31/ups

DEPARTMENT OF HEALTH AND HUMAN SERVICES

# PROTECTION OF HUMAN SUBJECTS ASSURANCE/CERTIFICATION/DECLARATION

☒ ORIGINAL ☐ FOLLOWUP ☐ REVISION

☒ GRANT ☐ CONTRACT ☐ FELLOW ☐ OTHER

☒ NEW ☐ RENEWAL ☐ CONTINUATION

APPLICATION IDENTIFICATION NUMBER *(If known)*

*STATEMENT OF POLICY: Safeguarding the rights and welfare of subjects at risk in activities supported under grants and contracts from DHHS is primarily the responsibility of the institution which receives or is accountable to DHHS for the funds awarded for the support of the activity. In order to provide for the adequate discharge of this institutional responsibility, it is the policy of DHHS that no activity involving human subjects to be supported by DHHS grants or contracts shall be undertaken unless the Institutional Review Board has reviewed and approved such activity, and the institution has submitted to DHHS a certification of such review and approval, in accordance with the requirements of Public Law 93-348, as implemented by Part 46 of Title 45 of the Code of Federal Regulations, as amended, (45 CFR 46). Administration of the DHHS policy and regulation is the responsibility of the Office for Protection from Research Risks, National Institutes of Health, Bethesda, MD 20205.*

1. TITLE OF PROPOSAL OR ACTIVITY

TV's Contribution to Conceptions of Aging and Health

2. PRINCIPAL INVESTIGATOR/ACTIVITY DIRECTOR/FELLOW

Dr. George Gerbner

3. DECLARATION THAT HUMAN SUBJECTS EITHER WOULD OR WOULD NOT BE INVOLVED

☐ A. NO INDIVIDUALS WHO MIGHT BE CONSIDERED HUMAN SUBJECTS, INCLUDING THOSE FROM WHOM ORGANS, TISSUES, FLUIDS, OR OTHER MATERIALS WOULD BE DERIVED, OR WHO COULD BE IDENTIFIED BY PERSONAL DATA, WOULD BE INVOLVED IN THE PROPOSED ACTIVITY. (IF NO HUMAN SUBJECTS WOULD BE INVOLVED, CHECK THIS BOX AND PROCEED TO ITEM 7. PROPOSALS DETERMINED BY THE AGENCY TO INVOLVE HUMAN SUBJECTS WILL BE RETURNED.)

☒ B. HUMAN SUBJECTS WOULD BE INVOLVED IN THE PROPOSED ACTIVITY AS EITHER: ☒ NONE OF THE FOLLOWING, OR INCLUDING: ☐ MINORS, ☐ FETUSES, ☐ ABORTUSES, ☐ PREGNANT WOMEN, ☐ PRISONERS, ☐ MENTALLY RETARDED, ☐ MENTALLY DISABLED. UNDER SECTION 6. COOPERATING INSTITUTIONS, ON REVERSE OF THIS FORM, GIVE NAME OF INSTITUTION AND NAME AND ADDRESS OF OFFICIAL(S) AUTHORIZING ACCESS TO ANY SUBJECTS IN FACILITIES NOT UNDER DIRECT CONTROL OF THE APPLICANT OR OFFERING INSTITUTION.

4. DECLARATION OF ASSURANCE STATUS/CERTIFICATION OF REVIEW

☐ A. THIS INSTITUTION HAS NOT PREVIOUSLY FILED AN ASSURANCE AND ASSURANCE IMPLEMENTING PROCEDURES FOR THE PROTECTION OF HUMAN SUBJECTS WITH THE DHHS THAT APPLIES TO THIS APPLICATION OR ACTIVITY. ASSURANCE IS HEREBY GIVEN THAT THIS INSTITUTION WILL COMPLY WITH REQUIREMENTS OF *DHHS Regulation 45 CFR 46*, THAT IT HAS ESTABLISHED AN INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS AND, WHEN REQUESTED, WILL SUBMIT TO DHHS DOCUMENTATION AND CERTIFICATION OF SUCH REVIEWS AND PROCEDURES AS MAY BE REQUIRED FOR IMPLEMENTATION OF THIS ASSURANCE FOR THE PROPOSED PROJECT OR ACTIVITY.

☒ B. THIS INSTITUTION HAS AN APPROVED GENERAL ASSURANCE (DHHS ASSURANCE NUMBER G0012 ) OR AN ACTIVE SPECIAL ASSURANCE FOR THIS ONGOING ACTIVITY, ON FILE WITH DHHS. THE SIGNER CERTIFIES THAT ALL ACTIVITIES IN THIS APPLICATION PROPOSING TO INVOLVE HUMAN SUBJECTS HAVE BEEN REVIEWED AND APPROVED BY THIS INSTITUTION'S INSTITUTIONAL REVIEW BOARD IN A CONVENED MEETING ON THE DATE OF 6/22/82 IN ACCORDANCE WITH THE REQUIREMENTS OF THE *Code of Federal Regulations on Protection of Human Subjects (45 CFR 46)*. THIS CERTIFICATION INCLUDES, WHEN APPLICABLE, REQUIREMENTS FOR CERTIFYING FDA STATUS FOR EACH INVESTIGATIONAL NEW DRUG TO BE USED (SEE REVERSE SIDE OF THIS FORM).

THE INSTITUTIONAL REVIEW BOARD HAS DETERMINED, AND THE INSTITUTIONAL OFFICIAL SIGNING BELOW CONCURS THAT:

EITHER ☒ HUMAN SUBJECTS WILL NOT BE AT RISK; OR ☐ HUMAN SUBJECTS WILL BE AT RISK.

5. AND 6. SEE REVERSE SIDE SEE NOTES

7. NAME AND ADDRESS OF INSTITUTION

Office of Research Administration - University of Pennsylvania
3451 Walnut Street - 409 Franklin Building/I6
Philadelphia, PA 19104

| 8. TITLE OF INSTITUTIONAL OFFICIAL | TELEPHONE NUMBER |
|---|---|
| Director, Office of Research Administration | (215) 243-7293 |
| SIGNATURE OF INSTITUTIONAL OFFICIAL | DATE |
| Anthony Mancuso | June 22, 1982 |

HHS-596 (Rev. 5-80)

*ENCLOSE THIS FORM WITH THE PROPOSAL OR RETURN IT TO REQUESTING AGENCY.*

FORM APPROVED
O.M.B. NO. 68-R0249

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE

# GRANT APPLICATION

**FOLLOW INSTRUCTIONS CAREFULLY**

| LEAVE BLANK | | |
|---|---|---|
| TYPE | ACTIVITY | NUMBER |
| REVIEW GROUP | | FORMERLY |
| COUNCIL/BOARD (Month, year) | | DATE RECEIVED |

1. TITLE OF APPLICATION (Do not exceed 56 typewriter spaces)
TV's Contribution to Conceptions of Aging and Health

2. RESPONSE TO SPECIFIC PROGRAM ANNOUNCEMENT [ ] NO [X] YES (If "YES," state RFA number and/or announcement title)
NIA/13.866 Health & Effective Functioning in Middle and Later Years

3. PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR

3a. NAME (Last, first, middle)
George Gerbner

3b. SOCIAL SECURITY NUMBER
560-26-1969

3c. MAILING ADDRESS (Street, city, state, zip code)
Annenberg School of Communications
University of Pennsylvania
3620 Walnut Street C-5
Philadelphia, Pa. 19104

3d. POSITION TITLE
Professor of Communications and Dean

3e. DEPARTMENT, SERVICE, LABORATORY OR EQUIVALENT
Annenberg School of Communications

3f. TELEPHONE (Area code, number and extension)
214-243-7041

3g. MAJOR SUBDIVISION

4. HUMAN SUBJECTS, DERIVED MATERIALS OR DATA INVOLVED
[ ] NO [X] YES (If "YES," form HHS 596 required)

5. RECOMBINANT DNA RESEARCH SUBJECT TO NIH GUIDELINES
[X] NO [ ] YES

6. DATES OF ENTIRE PROPOSED PROJECT PERIOD (This application)
From: June 1, 1983 Through: June 30, 1985

7. TOTAL DIRECT COSTS REQUESTED FOR PROJECT PERIOD (from page 5)
$ 211,413

8. DIRECT COSTS REQUESTED FOR FIRST 12-MONTH BUDGET PERIOD (from page 4)
$ 101,625

9. PERFORMANCE SITES (Organizations and addresses)
Annenberg School of Communications
University of Pennsylvania
3620 Walnut St. C 5
Philadelphia, Pa. 19104

10. INVENTIONS (Competing continuation application only)
Were any inventions conceived or reduced to practice during the course of the project?
[X] NO [ ] YES - Previously reported
[ ] YES - Not previously reported

11. APPLICANT ORGANIZATION (Name, address, and congressional district)
University of Pennsylvania
Office of Research Administration
3451 Walnut Street
Philadelphia, Pennsylvania 19104

12. ORGANIZATIONAL COMPONENT TO RECEIVE CREDIT FOR INSTITUTIONAL GRANT (See instructions)
Code 20 Description:

FIRST

13. ENTITY IDENTIFICATION NUMBER
23-1352685

14. TYPE OF ORGANIZATION (See instructions)
[X] Private Nonprofit
[ ] Public (Specify Federal, State, Local):

15. OFFICIAL IN BUSINESS OFFICE TO BE NOTIFIED IF AN AWARD IS MADE (Name, title, address and telephone number.)
Anthony Merritt, Director
University of Pennsylvania
Office of Research Administration
3451 Walnut Street
Philadelphia, Pennsylvania 19104 (215) 243-7293

16. OFFICIAL SIGNING FOR APPLICANT ORGANIZATION (Name, title, address and telephone number)
ARCHER W. KINNY
Associate Director
Office of Research Administration
409 Franklin Building/16
University of Pennsylvania
Philadelphia, Pennsylvania 19104 (215) 243-7293

17. PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR ASSURANCE: I agree to accept responsibility for the scientific conduct of the project and to provide the required progress reports if a grant is awarded as a result of this application.

SIGNATURE OF PERSON NAMED IN 3a (In ink. "Per" signature not acceptable)
George Gerbner

DATE
6/21/82

18. CERTIFICATION AND ACCEPTANCE: I certify that the statements herein are true and complete to the best of my knowledge, and accept the obligation to comply with Public Health Service terms and conditions if a grant is awarded as the result of this application. A willfully false certification is a criminal offense. (U.S. Code, Title 18, Section 1001.)

SIGNATURE OF PERSON NAMED IN 16 (In ink. "Per" signature not acceptable)
Archer W. Kinny

DATE
6/22/82

PHS-398
Rev. 5/80

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE

# ABSTRACT OF RESEARCH PLAN

LEAVE BLANK

PROJECT NUMBER

NAME AND ADDRESS OF APPLICANT ORGANIZATION *(Same as Item 11, page 1)*

Trustees of the University of Pennsylvania

TITLE OF APPLICATION *(Same as Item 1, page 1)*

TV's Contribution to Conceptions of Aging and Health

Name, Title and Department of all professional personnel engaged on project, beginning with Principal Investigator/Program Director

George Gerbner, Professor of Communications and Dean
Larry Gross, Associate Professof of Communications
Michael Morgan, Research Specialist
Nancy Signorielli, Research Coordinator

all are at the Annenberg School of Communications, University of Pennsylvania

ABSTRACT OF RESEARCH PLAN: Concisely describe the application's specific aims, methodology and long-term objectives, making reference to the scientific disciplines involved and the health-relatedness of the project. The abstract should be self-contained so that it can serve as a succinct and accurate description of the application when separated from it. DO NOT EXCEED THE SPACE PROVIDED.

Television, as the mainstream of the cultural environment and the primary source of information for millions of Americans, may have a significant impact upon the health and well-being of older people. This project will investigate television's contribution to health-related conceptions and behaviors in terms of older people and the aging process. Our prior work suggests that regular exposure to television drama cultivates distorted and problematic notions, assumptions, and actions regarding both the health and image of older people. The proposed research will combine these concerns to focus on television's role in health maintenance and functioning, disease prevention, nutrition, self-concept, and expectations of medical encounters among older people. The research will consist of two interrelated phases: (1) content analysis to uncover the most recurrent messages concerning aging and age-roles, health-related values and behaviors, and social and physiological functions of older people in prime-time network drama, commercials, daytime serials, and talk shows, and (2) survey analyses (including secondary analysis of existing data and the collection of new data) to determine how these images cultivate conceptions and habits of health and aging, particularly among older people.

LABORATORY ANIMALS INVOLVED. Identify by common names. If none, state "none" none

# TABLE OF CONTENTS

*Number pages consecutively at the bottom throughout the application. Do not use suffixes such as 5a, 5b. Type the name of the Principal Investigator/Program Director at the top of each printed page and each continuation page.*



SECTION 3. Appendix *(Six sets) (No page numbering necessary for Appendix)*

Number of publications: _____ Number of manuscripts: _____

Other items (list):

Recording Instrument from Aging with Television Project
Recording Instrument from Aging with Television Commercials Project

Application Receipt Record, form PHS 3830
Form HHS 596 if Item 4, page 1, is checked

PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR: George Gerbner

## DETAILED BUDGET FOR FIRST 12 MONTH BUDGET PERIOD
## DIRECT COSTS ONLY

FROM: June 1, 1983 THROUGH: July 1, 1984

DOLLAR AMOUNT REQUESTED (*Omit cents*)

| PERSONNEL (*Applicant organization only*) (*See instructions*) | | TIME/EFFORT | | | | |
|---|---|---|---|---|---|---|
| NAME | TITLE OF POSITION | % | Hours per Week | SALARY | FRINGE BENEFITS | TOTALS |
| George Gerbner | Principal Investigator | 4 | | $ 3,500 | 893 | $ 4,393 |
| Larry Gross | co-Principal Inves. | 5 | | 3,500 | 893 | 4,393 |
| Michael Morgan | Research Specialist | 25 | | 5,500 | 1,402 | 6,902 |
| Nancy Signorielli | Research Coordinat. | 25 | | 8,525 | 2,174 | 10,699 |
| Robin Dasher-Alston | Info. Systems Tech. | 25 | | 3,300 | 842 | 4,142 |
| Sheryl Moore | Info. Systems Tech. | 25 | | 3,300 | 842 | 4,142 |
| | | | | | | |
| Graduate Student | Research Asst. | | 20 | 6,000 | 510 | 6,510 |
| | | | | | | |
| Coders (see attached) | | | | 42,750 | 3,634 | 46,384 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | SUBTOTALS → | | | 76,375 | 11,190 | 87,565 |

CONSULTANT COSTS (*See instructions*) — 1,000

EQUIPMENT (*Itemize*)

SUPPLIES (*Itemize by category*) — 4,060

Office Supplies (including Coding Forms) -- 1,500

Video Tapes 2,560

| | | |
|---|---|---|
| TRAVEL | DOMESTIC | 500 |
| | FOREIGN | |
| PATIENT CARE COSTS | INPATIENT | |
| | OUTPATIENT | |

ALTERATIONS AND RENOVATIONS (*Itemize by category*)

CONTRACTUAL OR THIRD PARTY COSTS (*See instructions*)

OTHER EXPENSES (*Itemize by category*) — 8,500

Computer - 7,500

Xerox 1,000

TOTAL DIRECT COSTS (*Also enter on page 1, item 8*) → $ 101,625

PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR: George Gerbner

## BUDGET ESTIMATES FOR ALL YEARS OF SUPPORT REQUESTED
## DIRECT COSTS ONLY

| BUDGET CATEGORY TOTALS | | 1st BUDGET PERIOD (from page 4) | ADDITIONAL YEARS SUPPORT REQUESTED 2nd | 3rd | 4th | 5th |
|---|---|---|---|---|---|---|
| PERSONNEL (Salary and fringe benefits.) (Applicant organization only) | | 87,565 | 63,228 | | | |
| CONSULTANT COSTS | | 1,000 | 1,000 | | | |
| EQUIPMENT | | | | | | |
| SUPPLIES | | 4,060 | 3,560 | | | |
| TRAVEL | DOMESTIC | 500 | 500 | | | |
| | FOREIGN | | | | | |
| PATIENT CARE COSTS | INPATIENT | | | | | |
| | OUTPATIENT | | | | | |
| ALTERATIONS AND RENOVATIONS | | | | | | |
| CONTRACTUAL OR THIRD PARTY COSTS | | | 30,000 | | | |
| OTHER EXPENSES | computer<br>xerox | 7,500<br>1,000 | 10,000<br>1,500 | | | |
| TOTAL DIRECT COSTS | | $ 101,625 | $ 109,788 | | | |

TOTAL FOR ENTIRE PROPOSED PROJECT PERIOD (Also enter on page 1, item 7) → $ 211,413

JUSTIFICATION (Use continuation pages if necessary): Briefly describe the specific functions of the personnel and consultants. For all years, justify any costs for which the need may not be obvious, such as equipment, foreign travel, alterations and renovations, and contractual or third party costs. For future years, justify any significant increases in any category. In addition, for **COMPETING CONTINUATION** applications, justify any significant increases over current level of support. If a recurring annual increase in personnel costs is anticipated, give percentage.

The 4 co-principal investigators (Gerbner, Gross, Morgan and Signorielli) are responsible for the overall project and all are involved in all phases of the research. Drs. Gross and Morgan will be more involved in the Cultivation Analysis, while Drs. Gerbner and Signorielli will be more involved in the Message System Analysis. Dr. Signorielli will be responsible for project logistics, budgets, etc.

Although we do not have any direct agreements (nor have spoken with) with consultants we feel it will be important to consult with others in the health, nutrition and aging fields. There are many possible consultants at the University of Pennsylvania including Dr. Lon O. Crosby and Dr. Albert J. Stunkard.

Computer expenses are increased during the second year of the project because more analyses will be performed during this time.

continued

Budget Justification Continued:

Coding Costs.

First Year

| | | |
|---|---|---|
| Training: | 20 coders @ 120 hours/coder @ $4.00/hr. | $ 9,600 |
| Drama: | 1050 programs @ 3 hrs/pgm x 2 coders @ $4.50/hr. (includes 40-50 % reliability) | 28,350 |
| Serials: | 16 serials @ 15 hrs/serial x 4 coders @ $4.50/hr. (includes 100 % reliability) | 4,800 |
| | Total | 42,750 |
| | Benefits | 3,634 |
| | TOTAL | $ 46,384 |

Second Year

| | | |
|---|---|---|
| Training: | 14 coders @ 100 hrs/coder @ $4.00/hr | 5,600 |
| Drama: | 120 pgms @ 3 hrs/pgm x 4 coders @ $4.50/hr. (100 % reliability) | 6,480 |
| Serials: | 16 serials @ 15 hrs/serial x 4 coders @ $4.50/hr. | 4,800 |
| | Total | 16,880 |
| | Benefits | 1,519 |
| | TOTAL | $ 18,399 |

## BIOGRAPHICAL SKETCH

Give the following information for key professional personnel listed on page 2, beginning with the Principal Investigator/Program Director. Photocopy this page for each person.

| NAME | TITLE | BIRTHDATE (Mo., Day, Yr.) |
|---|---|---|
| George Gerbner | Dean and Professor of Communications | August 8, 1919 |

EDUCATION (Begin with baccalaureate training and include postdoctoral)

| INSTITUTION AND LOCATION | DEGREE | YEAR CONFERRED | FIELD OF STUDY |
|---|---|---|---|
| University of California, Berkeley | B.A. | 1942 | Journalism |
| University of Southern California | M.S. | 1951 | Communication |
| University of Southern California | Ph.D. | 1955 | Communication |
| | | | |
| | | | |

RESEARCH AND/OR PROFESSIONAL EXPERIENCE: Concluding with present position, list in chronological order previous employment, experience, and honors. Include present membership on any Federal Government Public Advisory Committee. List, in chronological order, the titles and complete references to recent representative publications, especially those most pertinent to this application. Do not exceed 2 pages.

1964-Present — Professor and Dean, the Annenberg School of Communications, University of Pennsylvania. Teaching Mass Communication and Society, seminars in communications research and theory.

1973-Present — Editor, Journal of Communication.

1977-March, 1981 — Investigator with Larry Gross and Nancy Signorielli of "Aging with Television" and "Aging with Television Commercials."

1972-Dec. 1980 — Investigator with Larry Gross of "Cultural Indicators." Studies in progress.

1969-1970 — Principal Investigator of a continuing study on violence in network television drama sponsored by the Surgeon General's Committee on Television and Social Behavior.

1968-1969 — Principal Investigator of a study of the portrayal of violence in network television drama, sponsored by the National Commission on the Causes and Prevention of Violence.

Publications:

"Mental Illness on Television: A Study of Censorship," Journal of Broadcasting, 3:292-303, Fall 1959.

"Psychology, Psychiatry and Mental Illness in the Mass Media: A Study of Trends, 1900-1959," Mental Hygiene, 45:89-93, 1961.

"Institutional Pressures Upon Mass Communicators." In The Sociology of Mass Media Communicators, edited by Paul Halmos. The Sociological Review Monograph No. 13, pp. 205-248. University of Keele, England, 1969.

"Toward 'Cultural Indicators'; The Analysis of Mass Mediated Message Systems." AV Communication Review, 17:137-148, Summer 1969. Also Chapter 5 in The Analysis of Communication Content, see item above.

The Analysis of Communication Content: Developments in Scientific Theories and Computer Techniques. New York: John Wiley & Sons, 1969 (co-editor with Ole. R. Holsti, Klaus Krippendorff, William J. Paisley, Philip J. Stone).

"Dimensions of Violence in Television Drama." Report of research project in collaboration with Marten Brouwer, Cedric C. Clark, and Klaus Krippendorff, sponsored by the National Commission on the Causes and Prevention of Violence, 1969.

Publications continued:

"Cultural Indicators: The Case of Violence in Television Drama." The Annals of the American Academy of Political and Social Science, 388:69-81, March 1970.

"Violence in Television Drama: Trends and Symbolic Functions." In G.A. Comstock and E.A. Rubinstein (eds.), Television and Social Behavior. Vol. 1 Content and Control. Washington: Government Printing Office, 1972.

"Cultural Indicators: The Third Voice." In Communications Technology and Social Policy. New York: John Wiley & Sons, 1973 (co-editor with Larry Gross and William Melody).

"Communication and Social Environment." Scientific American, 227:153-160, September 1972. Reprinted in Communication: A Scientific American Book. San Francisco, Calif.: W.H. Freeman and Company, 1972.

The Violence Profile, Numbers 5 thru 11: Trends in Network Television Drama and Viewer Conceptions of Social Reality. Annenberg School of Communications, University of Pennsylvania, 1974-1980.

TV Violence Profile No. 8: The Highlights, Journal of Communication, 1977, 27:2, 171-180 (with Larry Gross, Michael Eleey, Marily Jackson-Beeck, Suzanne Jeffries-Fox, and Nancy Signorielli).

"Scenario for Violence," Human Behavior, 1975.

"Living with Television, The Violence Profile," Journal of Communication, April 1976 (with Larry Gross).

"The Gerbner Violence Profile: An Analysis of the CBS Report" (with Larry Gross, Michael Eleey, Marilyn Jackson-Beeck, Suzanne Jeffries-Fox, and Nancy Signorielli) Journal of Broadcasting, Summer, 1977, 21:3, 280-286.

"The World of Television News," (with Nancy Signorielli) in W. Adams and F. Schriebman (eds.) Television News Archives: A Guide to Research. Washington, D.C.: George Washington University, 1978.

"Cultural Indicators: Violence Profile No. 9," (with Larry Gross, Marilyn Jackson-Beeck, Suzanne Jeffries-Fox, and Nancy Signorielli) Journal of Communication, Summer, 1978, 28:3, 176-207.

"The Image of the Elderly in Prime-Time Television Drama," (with Nancy Signorielli) Generations, Fall, 1978.

"The Demonstration of Power: Violence Profile No. 10." Journal of Communication, Summer, 1979, 28:3, 177-196 (with Larry Gross, Nancy Signorielli, Michael Morgan, and Marilyn Jackson-Beeck).

On Wober's "Televised Violence and Paranoid Perception: The View from Great Britain," Public Opinion Quarterly, Spring, 1979, 123-124 (with Larry Gross, Nancy Signorielli, and Michael Morgan).

Women and Minorities in Television Drama, 1969-1978. Annenberg School of Communications, University of Pennsylvania, October, 1979 (with Nancy Signorielli).

Publications continued:

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

Media and the Family: Images and Impact. Overview paper prepared for the National Research Forum on Family Issues. Sponsored by the White House Conference on Families, Washington, D.C., April 10-11, 1980 (with Larry Gross, Nancy Signorielli, and Michael Morgan).

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

Television Violence, Victimization, and Power, American Behavioral Scientist, 1980, 23:5, 705-716 (with Larry Gross, Nancy Signorielli, and Michael Morgan).

Some Additional Comments on Cultivation Analysis, Public Opinion Quarterly, Fall, 1980, 44:3, 408-410 (with Larry Gross, Nancy Signorielli, and Michael Morgan).

"Television's Contribution to Public Understanding of Science: A Pilot Project" Annenberg School of Communications, University of Pennsyvlania, 1980 (with Larry Gross, Nancy Signorielli, and Michael Morgan).

A Curious Journey into the Scary World of Paul Hirsch. Communication Research, 1981, 8:1, 39-72 (with Larry Gross, Nancy Signorielli, and Michael Morgan).

Programming Health Portrayals: What Viewers See, Say and Do, in National Institute of Mental Health, Television and Behavior: Ten Years of Scientific Progress and Implications for the 80's (forthcoming) (with Nancy Signorielli and Michael Morgan).

The Violent Face of Television and Its Lessons. In Edward L. Palmer and Aimee Dorr (eds.), Children and the Faces of Television: Teaching, Violence, Selling, New York: Academic Press, 1980. (with Larry Gross)

Health and Medicine on Television, The New England Journal of Medicine, Boston, Ma., October 8, 1981. (with Larry Gross, Michael Morgan and Nancy Signorielli).

What Television Teaches About Doctors and Health, Mobius: A Journal for Continuing Education Professionals in Health Sciences, in press. (with Larry Gross, Michael Morgan and Nancy Signorielli)

Scientists on the TV Screen. Society, May/June 1981, 18:4, 41-44 (with Larry Gross, Nancy Signorielli, and Michael Morgan).

Charting the Mainstream: Television's Contribution to Political Orientations. Journal of Communication, Spring 1982, 32:2, 100-127 (with Larry Gross, Nancy Signorielli, and Michael Morgan).

The World According to Television. American Demographics, in press (with Nancy Signorielli).

## BIOGRAPHICAL SKETCH

Give the following information for key professional personnel listed on page 2, beginning with the Principal Investigator/Program Director. Photocopy this page for each person.

| NAME | TITLE | BIRTHDATE (Mo., Day, Yr.) |
|---|---|---|
| Larry Gross | Associate Professor of Comm. | November 22, 1942 |

EDUCATION (*Begin with baccalaureate training and include postdoctoral*)

| INSTITUTION AND LOCATION | DEGREE | YEAR CONFERRED | FIELD OF STUDY |
|---|---|---|---|
| Brandeis University, Waltham, Mass. | B.A. | 1964 | Psychology |
| Columbia University, N.Y.C., New York | Ph.D. | 1968 | Social Psychology |
| | | | |
| | | | |
| | | | |

RESEARCH AND/OR PROFESSIONAL EXPERIENCE: Concluding with present position, list in chronological order previous employment, experience, and honors. Include present membership on any Federal Government Public Advisory Committee. List, in chronological order, the titles and complete references to recent representative publications, especially those most pertinent to this application. Do not exceed 2 pages.

1973-Present Associate Professor of Communications, The Annenberg School of Communications
1968-1973 Assistant Professor of Communications
1972-Present Co-Principal Investigator with George Gerbner of "Cultural Indicators"
1977-1981 Co-Principal Investigator with George Gerbner and Nancy Signorielli, "Aging with Television" and "Aging with Television Commercials"

Papers and Publications:

"Manipulated Time and Eating Behavior," Journal of Personality and Social Psychology, 1968, 10, 96-108 (with S. Schachter).

"Modes of Communication and the Acquisition of Symbolic Competence," Chap. 13, Communications Technology and Social Policy, Gerbner, Gross, and Melody, eds., New York: Wiley Interscience, 1973.

Communication Technology and Social Policy, Co-editor (with George Gerbner and William Melody), New York: Wiley, 1973.

"The Real World of Television," Today's Education, The Journal of the National Education Association, Jan. - Feb., 1974, pp. 86-92.

"Symbolic Strategies," (with Sol Worth), Journal of Communication, 24:4, 1974, pp. 27-39.

"Art History as Ethnography and as Social Analysis," Studies in the Anthropology of Visual Communication, 1:1, 1974, pp. 51-56.

"Yes, But Is It Really Communication?" Journal of Communication, 25:1, 1975, pp. 191-194.

"The World of Television: Towards Cultural Indicators," (with George Gerbner), Intermedia (Journal of the International Broadcast Institute), 1975, Vol. 3, No. 3.

The Violence Profile, Numbers 5 thru 11: Trends in Network Television Drama and Viewer Conceptions of Social Reality. The Annenberg School of Communications, University of Pennsylvania, 1974-1980.

TV Violence Profile No. 8: The Highlights, Journal of Communication, 1977, 27:2, 171-180 (with George Gerbner, Michael Eleey, Marilyn Jackson-Beeck, Suzanne Jeffries-Fox and Nancy Signorielli).

Publications continued:

"Living with Television, The Violence Profile," Journal of Communication, April 1976 (with George Gerbner).

"Television as a Trojan Horse," School Media Quarterly, 1977, 5:3, pp. 175-181.

"What Do You Want To Do When You Grow Up, Little Girl? Approaches to the Study of Media Effects," (with Suzanne Jeffries-Fox), in Gaye Tuchman, et al., eds., Home and Hearth: Images of Women in the Mass Media, New York: Oxford University Press, 1978.

"The Gerbner Violence Profile: An Analysis of the CBS Report," (with George Gerbner, Michael Eleey, Marilyn Jackson-Beeck, Suzanne Jeffries-Fox, and Nancy Signorielli), Journal of Broadcasting, Summer, 1977, 21:3, 280-286.

"Cultural Indicators: Violence Profile No. 9," (with George Gerbner, Marilyn Jackson-Beeck, Suzanne Jeffries-Fox, and Nancy Signorielli), Journal of Communication, Summer, 1978, 28:3, 176-207.

"Interpretations of a Photographic Narrative by Viewers in Four Age Groups," (with Paul Messaris), Studies in the Anthropology of Visual Communications, 4:2, 1977, pp. 99-111.

"The Demonstration of Pwer: Violence Profile No. 10" Journal of Communication, Summer, 1979, 28:3, 177-196 (with George Gerbner, Nancy Signorielli, Michael Morgan, and Marilyn Jackson-Beeck).

On Wober's "Televised Violence and Paranoid Perception: The View from Great Britain," Public Opinion Quarterly, Spring, 1979, 123-124 (with George Gerbner, Nancy Signorielli, and Michael Morgan).

"Aging with Television: Images on Television Drama and Conceptions of Social Reality," Journal of Communication, Winter, 1980, 31:1, 37-47 (with George Gernber, Nancy Signorielli, and Michael Morgan).

"Media and the Family: Images and Impact," Overview paper prepared for the National Research Forum on Family Issues. Sponsored by the White House Conference on Families, Washington, D.C., April 10-11, 1980 (with George Gerbner, Nancy Signorielli, and Michael Morgan).

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

"Television Violence, Victimization, and Power," American Behavioral Scientist, 1980, 23:5, 705-716 (with George Gerbner, Nancy Signorielli, and Michael Morgan).

"Some Additional Comments on Cultivation Analysis," Public Opinion Quarterly, Fall 1980, 44:3, 408-410 (with George Gerbner, Nancy Signorielli, and Michael Morgan).

Publications continued:

"Television's Contribution to Public Understanding of Science: A Pilot Project" Annenberg School of Communications, University of Pennsylvania, 1980 (with George Gerbner, Nancy Signorielli, and Michael Morgan).

A Curious Journey into the Scary World of Paul Hirsch, Communication Research, 1981, 8:1, 39-72 (with George Gerbner, Nancy Signorielli, and Michael Morgan).

The Violent Face of Television and Its Lessons. In Edward L. Palmer and Aimee Door (eds.), Children and the Faces of Television: Teaching, Violence, Selling, New York: Academic Press, 1980. (with George Gerbner)

Health and Medicine on Television. The New England Journal of Medicine, Boston, Ma., October 8, 1981. (with George Gerbner, Michael Morgan and Nancy Signorielli)

Television and Enculturation. In J.R. Dominick and J. Fletcher (eds.), Broadcasting Research Methods: A Reader, Boston: Allyn and Bacon, in press. (with Michale Morgan).

Violence in Television Programs: Ten Years Later. In D. Pearl, J. Lazar, and L. Bouthilet (eds.), Television and Behavior: Ten Years of Scientific Progress and Implications for the 80's., in press.

Television and Educational Achievement and Aspirations. In D. Pearl, J. Lazar and L. Bouthilet (eds.), Television and Behavior: Ten Years of Scientific Progress and Implications for the 80's., in press.

Scientists on the TV Screen. Society, May/June 1981, 18:4, 41-44 (with George Gerbner, Nancy Signorielli, and Michael Morgan).

Charting the Mainstream: Television's Contribution to Political Orientations. Journal of Communication, Spring 1982, 32:2, 100-127 (with George Gerbner, Nancy Signorielli, and Michael Morgan).

## BIOGRAPHICAL SKETCH

Give the following information for key professional personnel listed on page 2, beginning with the Principal Investigator/Program Director. Photocopy this page for each person.

| NAME | TITLE | BIRTHDATE (Mo., Day, Yr.) |
|---|---|---|
| Michael Jay Morgan | Research Specialist | April 15, 1953 |

**EDUCATION** (*Begin with baccalaureate training and include postdoctoral*)

| INSTITUTION AND LOCATION | DEGREE | YEAR CONFERRED | FIELD OF STUDY |
|---|---|---|---|
| New College, Sarasota, Florida | B.A. | 1974 | Communication |
| Annenberg School of Communications, University of Pennsylvania, Philadelphia, Pennsylvania | M.A. | 1977 | Communication |
| University of Pennsylvania | Ph.D. | 1980 | Communication |

RESEARCH AND/OR PROFESSIONAL EXPERIENCE: Concluding with present position, list in chronological order previous employment, experience, and honors. Include present membership on any Federal Government Public Advisory Committee. List, in chronological order, the titles and complete references to recent representative publications, especially those most pertinent to this application. Do not exceed 2 pages.

July 1979-Present Research Specialist, The Annenberg School of Communications
April 1978 - June 1979 Research Associate, "Television and Children's Conceptions of Social Reality," Annenberg School of Communications

1976 - April 1978 Research Assistant, Cultural Indicators Project

Publications and Papers:

The Demonstration of Power: Violence Profile No. 10, Journal of Communication, 1979, 29:3, 177-196. Also in G.C. Wilhoit and H. de Bock, eds., Mass Communication Review Yearbook, Volume 1. Beverly Hills: Sage, 1980. (with George Gerbner, Larry Gross, Nancy Signorielli, and Marilyn Jackson-Beeck)

On Wober's "Televised Violence and Paranoid Perception: The View from Great Britain," Public Opinion Quarterly, Spring, 1979, 123-124. (with George Gerbner, Larry Gross, and Nancy Signorielli)

Television, IQ, and School Achievement, in S. Scheuyer, ed., The TV Annual 1978-1979. New York: Macmillan, 1979, 237-239. (with Larry Gross)

"Television, IQ, and Reading Skills," Cultural Indicators Symposium, International Communication Association, Philadelphia, Pa., May 1979.

"Television and Adolescents' Reading Habits and Skills," 70th Annual Conference of Eastern Communication Association, Philadelphia, Pa., May 1979.

"Television and Adolescents' Reading Preferendes," 3rd Conference on Culture and Communication, Temple University, Philadelphia, Pa., March 1979.

"Television and Adolescents' Family Life Expectations," Unpublished manuscript, The Annenberg School of Communications, January 1980. (with Heather Harr-Mazer)

Television Viewing and Reading: Does More Equal Better? Journal of Communication, Winter, 1980, 30:1, 159-165.

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Publications continued:

Television Violence, Victimization, and Power, American Behavioral Scientist, 1980, 23:5, 705-716. (with George Gerbner, Larry Gross, and Nancy Signorielli)

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

Television Viewing, IQ, and Academic Achievement, Journal of Broadcasting, 1980, 24:2, 117-133.

"Media and the Family: Images and Impact," National Research Forum on Family Issues, White House Conference on Families, Washington, D.C., April 1980. (with George Gerbner, Larry Gross, and Nancy Signorielli)

"Television and Adolescent Role Socialization," Cultural Indicators Symposium, International Communication Association, Acapulco, Mexico, May 1980.

Some Additional Comments on Cultivation Analysis, Public Opinion Quarterly, Fall, 1980, 44:3, 408-410. (with George Gerbner, Larry Gross, and Nancy Signorielli)

Television and Enculturation, in J. Dominick and J. Fletcher, eds., Broadcasting Research Methods: A Reader. Boston: Allyn and Bacon, in press.

Violence in Television Programs: Ten Years Later, in National Institute of Mental Health, Television and Behavior: Ten Years of Scientific Progress and Implications for the 80's, in press. (with Larry Gross and Nancy Signorielli)

Television and Educational Achievement and Aspirations, in National Institute of Mental Health, Television and Behavior: Ten Years of Scientific Progress and Implications for the 80's, in press. (with Larry Gross)

"Television's Contribution to Public Understanding of Science: A Pilot Project" Annenberg School of Communications, University of Pennsylvania, 1980 (with George Gerbner, Larry Gross, and Nancy Signorielli).

A Curious Journey into the Scary World of Paul Hirsch, Communication Research, 1981, 8:1, 39-72.

Programming Health Portrayals: What Viewers See, Say, and Do, in National Institute of Mental Health, Television and Behavior: Ten Years of Scientific Progress and Implications for the 80's (forthcoming) (with George Gerbner and Nancy Signorielli).

Michael Jay Morgan, Ph.D.

Publications continued:

Health and Medicine on Television, The New England Journal of Medicine, Boston, Ma.: October 8, 1981. (with George Gerbner, Larry Gross and Nancy Signorielli)

What Television Teaches about Doctors and Health, Mobius: A Journal for Continuing Education Professionals in Health Sciences, in press. (with George Gerbner and Nancy Signorielli)

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Charting the Mainstream: Television's Contribution to Political Orientations. Journal of Communication, Spring 1982, 32:2, 100-127 (with George Gerbner, Larry Gross, and Nancy Signorielli).

Symbolic Victimization and Real World Fear. Communication Research, in press.

## BIOGRAPHICAL SKETCH

Give the following information for key professional personnel listed on page 2, beginning with the Principal Investigator/Program Director. Photocopy this page for each person.

| NAME | TITLE | BIRTHDATE (Mo., Day, Yr.) |
|---|---|---|
| Nancy Signorielli | Research Coordinator | July 29, 1943 |

EDUCATION (*Begin with baccalaureate training and include postdoctoral*)

| INSTITUTION AND LOCATION | DEGREE | YEAR CONFERRED | FIELD OF STUDY |
|---|---|---|---|
| Wilson College, Chambersburg, Pa. | A.B. | 1965 | Psychology |
| Queens College of the City University of New York, Flushing, New York | M.A. | 1967 | Psychology |
| University of Pennsylvania Graduate School of Arts and Sciences, Philadelphia, Pa. | Ph.D. | 1975 | Communications |

RESEARCH AND/OR PROFESSIONAL EXPERIENCE: Concluding with present position, list in chronological order previous employment, experience, and honors. Include present membership on any Federal Government Public Advisory Committee. List, in chronological order, the titles and complete references to recent representative publications, especially those most pertinent to this application. Do not exceed 2 pages.

1977-Present Research Coordinator, Annenberg School of Communications
1973-1977 Research Specialist, Annenberg School of Communications
1969-1973 Research Associate, Annenberg School of Communications
1969-1971 Instructor, Dept. of Psychology, Chestnut Hill College, Philadelphia

1977-March 1981 Investigation with George Gerbner and Larry Gross, "Aging with Television" and "Aging with Television Commercials."

Publications:

Apples, Oranges, and the Kitchen Sink: An Analysis and Guide to the Comparison of "Violence Ratings," Journal of Broadcasting, 17:1, (Winter 1972-73), 21-31. (with George Gerbner and Michael F. Eleey)

Men and Women in Television Drama: A Multidimensional Exploration; paper presented at the Speech Association Convention, December 1974.

The Violence Profile, Numbers 5 thru 11: Trends in Network Television Drama and Viewer Conceptions of Social Reality. Annenberg School of Communications, University of Pennsylvania, 1974-1980.

Patterns in Prime-Time, Journal of Communication, 1974, 24:2, 119-124.

TV Violence Profile, No. 8: The Highlights, Journal of Communication, 1977, 27:2, 171-180. (with George Gerbner, Larry Gross, Michael F. Eleey, Marily Jackson-Beeck, and Suzanne Jeffries-Fox)

"The Gerbner Violence Profile" -- an analysis of the CBS Report, Journal of Broadcasting, 1977, 21:3, 280-286. (with George Gerbner, Larry Gross, Michael F. Eleey, Marilyn Jackson-Beeck, and Suzanne Jeffries-Fox)

Cultural Indicators: Violence Profile No. 9, Journal of Communication, Summer, 1978, 28:3, 176-207. (with George Gerbner, Larry Gross, Marilyn Jackson-Beeck, and Suzanne Jeffries-Fox)

The World of Television News, in William Adams and Fay Schriebman (eds.), Television Network News: Issues in Content Research, Washington, D.C.: George Washington University Press, 1978. (with George Gerbner)

Publications continued:

The Image of the Elderly in Prime-Time Television Drama, Generations, Fall, 1978. (with George Gerbner)

Television and Children's Conceptions about Occupations, Proceedings of the Sixth Annual Telecommunications Policy Research Conference, Herb S. Dordick (ed.), Lexington, Mass.: Lexington Books, 1979. (with Suzanne Jeffries-Fox)

Television's Contribution to Sex-role Socialization. Paper presented at the Seventh Annual Telecommunications Policy Research Conference, Skytop, Pa., April 29 - May 1, 1979 and International Communications Association Conference, Philadelphia, Pa., May 2-5, 1979.

Aging and Television: Portrayals in Prime-Time Drama and Conceptions of Social Reality. Paper presented at the 34th Annual AAPOR Conference, Buckhill Falls, Pa., May 31 - June 3, 1979.

The Demonstration of Power: Violence Profile No. 10. Journal of Communication, Summer, 1979, 29:3, 177-196. (with George Gerbner, Larry Gross, Michael Morgan, and Marilyn Jackson-Beeck)

On Wober's "Televised Violence and Paranoid Perception: The View from Great Britain," Public Opinion Quarterly, Spring, 1979, 123-124. (with George Gerbner, Larry Gross, and Michael Morgan)

Women and Minorities in Television Drama, 1969-1978. Annenberg School of Communications, University of Pennsylvania, October, 1979. (with George Gerbner)

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

The Measurement of Violence in Television Programming: Violence Indices. In Joseph Dominick and James Fletcher, Broadcasting Research Methods: A Reader, Boston: Allyn and Bacon, in press.

Media and the Family: Images and Impact. Overview paper prepared for the National Research Forum on Family Issues. Sponsored by the White House Conference on Families, Washington, D.C., April 10-11, 1980. (with George Gerbner, Larry Gross, and Michael Morgan)

Violence in Television Programs: Ten Years Later. In the National Institute of Mental Health, Television and Behavior: Ten Years of Scientific Progress and Implications for the 80's, in press. (with Larry Gross and Michael Morgan)

Marital Status in TV Drama: A Case of Reduced Options. Journal of Broadcasting, in press.

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

Some Additional Comments on Cultivation Analysis, Public Opinion Quarterly, Fall, 1980, 44:3, 408-410 (with George Gerbner, Larry Gross, and Michael Morgan).

Publications continued:

"Television's Contribution to Public Understanding of Science: A Pilot Project" Annenberg School of Communications, University of Pennsylvania, 1980 (with George Gerbner, Larry Gross, and Michael Morgan).

A Curious Journey into the Scary World of Paul Hirsch, Communication Research, 1981, 8:1, 39-72 (with George Gerbner, Larry Gross, and Michael Morgan).

Programming Health Portrayals: What Viewers See, Say, and Do, in National Institute of Mental Health, Television and Behavior: Ten Years of Scientific Progress and Implications for the 80's (forthcoming) (with George Gerbner and Michael Morgan).

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Marital Status in TV Drama: A Case of Reduced Options. Journal of Broadcasting, in press.

The World According to Television. American Demographics, in press.

# OTHER SUPPORT

***(USE CONTINUATION PAGES IF NECESSARY)***

For each of the professionals named on page 2, list, in three separate groups: (1) active support; (2) applications pending review and/or funding; (3) applications planned or being prepared for submission. Include all Federal, non-Federal, and institutional grant and contract support. If none, state "NONE." For each item give the source of support, identifying number, project title, name of principal investigator/program director, time or percent of effort on the project by professional named, annual direct costs, and entire period of support. (If part of a larger project, provide the titles of both the parent grant and the subproject and give the annual direct costs for each.) Briefly describe the contents of each item listed. If any of these overlap, duplicate, or are being replaced or supplemented by the present application, justify and delineate the nature and extent of the scientific and budgetary overlaps or boundaries.

PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR:

(1) ACTIVE SUPPORT:

The following report applies to Drs. Gerbner, Gross, Morgan and Signorielli

1. The Role of Television Entertainment in Public Education About Science

   NSF Total Direct costs: $134,828 Total Indirect Costs: $ 64,888
   Total Costs: $199,716

   Duration: 9/1/81 - 12/31/83

   Time Allocations: George Gerbner -- 4 %
   Larry Gross -- 4 %
   Michael Morgan -- 20%
   Nancy Signorielli -- 20%

2.

2. Religion and Television: The Annenberg/Gallup Research Project

   The National Council of the Churches of Christ

   Duration: July 1, 1982 - January 31, 1984

   Costs: Total direct costs: $ 89,085 Total indirect costs: $ 16,022
   Total Costs: $ 105,107

   Time Allocations: George Gerbner - 2 %
   Larry Gross - 2 %
   Michael Morgan - 10 %
   Nancy Signorielli - 10%

1. Pending Support - Gerbner, Gross, Morgan and Signorielli

Cameras in the Courtroom

Proposal submitted to the National Science Foundation

Proposed Dates: Sept. 1, 1982 to March 31, 1983

Total Direct Costs: $ 67,657 Total Indirect Costs: $ 10,378

Total Cost: $ 78,035

Time Allocations:
George Gerbner - 2 %
Larry Gross 3 %
Micahel Morgan 16 %
Nancy Signorielli - 16%

## RESOURCES AND ENVIRONMENT

FACILITIES: Mark the facilities to be used and briefly indicate their capacities, pertinent capabilities, relative proximity and extent of availability to the project. Use "other" to describe facilities at other performance sites listed in Item 9, page 1, and at sites for field studies. Using continuation pages if necessary, include a description of the nature of any collaboration with other organizations and provide further information in the RESEARCH PLAN.

☐ Laboratory:

☐ Clinical:

☐ Animal:

☒ Computer: PRIME 550-II - located at the Annenberg School of Communications (we can have as much time as needed and budgeted for)

☒ Office: The offices of the co-principal investigators and that of the Informatin Systems Technicians will be available and used for this project.

☒ Other (Coding Room): Room used for coding videotapes

MAJOR EQUIPMENT: List the most important equipment items already available for this project, noting the location, and pertinent capabilities of each.

Videotape recorders and videotape archive. These are located in the coding room or the office of the Information System Technicians.

ADDITIONAL INFORMATION: Provide any other information describing the environment for the project. Identify support services such as consultants, secretarial, machine shop, and electronics shop, and the extent to which they will be available to the project.

Secretarial Services is available, but we anticipate using the PRIME computer to prepare most reports and other documents. These reports will be output via the Letter Quality Printer that is connected to the computer.

## SPECIFIC AIMS

The recently published volume Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention (1979) called for a reordering of our health priorities. Perhaps the most significant feature of the report was the finding that culturally sustained behavioral and lifestyle factors account for as much as half of U.S. mortality.

Cultural and behavioral research is, therefore, the new frontier of health promotion and the new high priority need in disease prevention. We propose to conduct such research in a central sector of the cultural and behavioral front: television and its contribution to health related habits and conceptions as it relates to older people and the aging process.

Our work has shown that television presents stable -- and problematic -- images and lessons about both health and aging. Those who are more exposed to these messages are more likely to report conceptions and practices that reflect these images. The proposed study will build on this work and focus on the critical issue of television's implications for the health of older persons.

This research will consist of two interrelated phases: (1) message system analysis to uncover the aggregate, recurrent images of aging and age-roles, including health-related behaviors and social and physiological functions of older people in prime-time network drama, commercials, daytime serials and talk shows and (2) cultivation analysis to determine how these images cultivate conceptions and habits of health and aging among viewers of all ages, but particularly among older people themselves.

The proposed work will draw upon existing data bases in our data archives, search for and use other data bases for secondary analysis, and generate new data, in order to understand television's contribution in this area of crucial relevance to the personal and social context of aging in the United States.

Our work thus far has revealed that television makes significant contributions to viewers' conceptions of many facets of social reality, including aging and health. (Gerbner, et al., 1980a, 1980b, 1981, 1981a, 1982a, 1982b). The proposed research will expand and elaborate upon these findings. We will use message system analysis to isolate in specific detail how these things are portrayed (for example, who eats/drinks, what older and younger people eat/drink, how these foods rate nutritionally, whether young, middle aged and older characters have healthy or unhealthy lifestyles, and how characters relate to doctors and other health practitioners) and will use these results to assess whether those who spend more time in the television world (the heavy viewers, holding other factors constant) are more likely to have views, expectations, or actual lifestyles that reflect these images.

## SIGNIFICANCE

While television is only one of many factors that influence people, it may well be the single most common and pervasive source of conceptions and actions. Yet its possible influence on the health of older people remains virtually unknown.

Recent research has revealed how lack of knowledge and misinformed attitudes can represent severe impediments to the acquisition and maintenance of good health (General Mills, 1979). These include denial and unwillingness to believe that catastrophic illness could attack one's own immediate family and confusion about what are and what are not good health practices.

The General Mills study found consistent evidence that certain groups, including the elderly, experience substantially greater difficulty in achieving good health care and following healthy routines. Older people are also likely to watch a great deal of television, so the impact television may have on them may be of special importance.

The proposed research is an extension of our ongoing research project, Cultural Indicators, which has been studying trends in the content of dramatic television programs and viewer conceptions of social reality since 1967-68. Our prior studies (supported by the Surgeon General's Scientific Advisory Committee on Television and Social Behavior. the National Institute of Mental Health, the American Medical Association, the Administration on Aging, The National Science Foundation, and other agencies) have established a fourteen year data base and have demonstrated the feasibility of this type of research.

Television has tremendous potential impact on people's attitudes and behaviors about aging, nutrition and health. Older characters are under-represented and prone to negative, stereotypical portrayals. Eating and drinking, much of it non-nutritious, appear with great frequency in television programs. The nature and consequences of these pervasive messages need to be understood before those who attempt to improve the well-being of the elderly can hope to succeed.

While research relating to television and aging has centered around the image of the elderly in television and how the image contributes to viewers' conceptions of the elderly (Gerbner et al., 1980a 1980b), most research concerning television's potential to influence health behavior has focused on children's commercials. The tendency for these commercials to promote unhealthy nutritional practices was well-documented during the middle 1970's.

Kaufman (1980) found that 20 percent of 108 commercials aired in a small sample of prime-time dramatic programs had to do with human food. Kaufman also found that food was seen, eaten or discussed two or three times in each of these 20 half-hour segments of dramatic programming. Moreover. in these programs, food was usually part of a social scene -- characters snacked often, were happy when eating, and rarely ate alone. Thus, on television, as often happens in real life, food was not used to necessarily satisfy hunger, but also, or even primarily, as a social or emotional tool.

Finally, Kaufman found that even those television characters (in programs and commercials) who ate many sweets and non-nutritious foods were usually svelte. Slim and average characters were much more likely to be associated with positive personal and social characteristics such as popularity, intelligence, and attractiveness.

A number of studies revealed that drinking alcoholic beverages appears quite frequently in dramatic television programs. Hanneman and McEwen (1974) found that alcohol appeared between 1.3 and 1.5 times in each hour of entertainment programming. A survey conducted by the Christian Science Monitor in 1975 revealed that, over a two month period, 80 percent of the regular prime-time programs depicted scenes involving alcohol (Dillin, 1975). Greenberg et al. (1980) also found one or two incidents of alcohol use per hour in two samples of prime-time fictional programs. Finally, drinking is also quite prevalent on daytime serials. Garlington (1977) found that the typical daytime serial averaged 2.99 instances of drinking an alcoholilc beverage.

Daytime serials also contain other kinds of information about health. Casata et al. (1979) studied all daytime serials aired in 1977 and found that "sickness and injury is a most important and pervasive problem." with nearly half of all characters involved in health-related occurrences. Specifically identifiable occurrences were psychiatric disorders, heart attacks, pregnancies, automobile accidents, attempted homicides, attempted suicides, and infectious diseases, in that order. The principal killers were homicides, car accidents, and heart attacks. Although men got sick and hurt more often, women were more likely to die, especially of a bad (if not broken) heart. Four times as many women (2.3 percent) as men died of cardiovascular disease. Half of the pregnancies resulted in miscarriages and 16 percent in the death of the mothers. Katzman's (1972) study of one week's daytime serials found 6 cases of mental and psychosomatic illness, 5 cases of physical disability, 4

pregnancies, 3 successful medical treatments, and 2 instances of important medical research.

There are also some tentative but suggestive indications that television's portrayals may contribute to the public's health-related knowledge and behaviors. Leaman (1973) studied 105 fourth and seventh graders in northeastern Pennsylvania, and found that those who watched more television had lower levels of nutritional knowledge. Moreover, the nutritional value of the children's diets also varied inversely with amount of television viewing.

Other, more indirect, evidence suggests that unhealthy practices may accompany greater immersion and involvement with television. The above cited General Mills study on "Family Health in an Era of Stress" (1979) revealed that "television programs" were the public's second most-cited source for health information, after "doctors and dentists". More importantly. those who chose television programs (versus those who did not) were significantly more likely to be categorized as "complacent" (versus "concerned") on health attitudes; as holding "old" (versus "new") health values; as being a "non-exerciser" on physical fitness; and as being "poorly informed" (versus well or somewhat informed) in terms of health information. These data suggest that those who seek such information from television are not among the more health-minded segments of the population.

Other surveys provide similar information. Our analysis of a survey conducted by the Roper Organization for Virginia Slims (Gerbner et al., 1982a) revealed support for the concern that heavy viewing may cultivate "laissez-faire" outlooks and behaviors with regard to eating, diet and nutrition. Those who watch more television are significantly more likely to report "I'm not concerned about weight, I eat and drink whatever I want. whenever I want."

At the same time. data from the NORC General Social Surveys of 1975, 1977 and 1978 show that amount of viewing is negatively related to degree of satisfaction respondents report deriving from "your health and physical condition." Our analyses show that, in almost all subgroups, those who watch more television are significantly less likely to say that they get a very great deal of satisfaction from their health. Importantly. controlling for respondents' actual state of health does not eliminate the significance of this association (although it is reduced and does produce wide baseline differences).

Thus a variety of findings, though often preliminary or indirect, lend credence to the notion that television may have a considerable impact upon the public's images, knowledge, and actions concerning health. Television programs are frequently-cited sources of health information; those who choose them, and those who watch more television, seem nonchalant and complacent about their well-being, and greater viewing goes with getting less satisfaction from one's health. In addition, the very act of watching television may generate behaviors with clear health implications, such as smoking and eating (Gerbner, et al., 1982a).

Since none of these studies has examined or considered how the aging process relates to these issues, all this, we believe, points to the need for much fuller and deeper understanding of the messages television conveys about health and nutrition and how these messages are related to older people's conceptions of health, the aging process and the inter-relationship beetween health and aging.

## PRELIMINARY STUDIES

Our ongoing research project, Cultural Indicators, has completed two studies relating to aging (Gerbner, et al., 1980a, 1980b, 1981). These studies have examined the portrayal of older people in both dramatic programs and commercials and have found that older characters are just about invisible in both instances. The elderly make up only 2.5% of the characters in prime time, 1% of the characters in children's programs and 2% of the characters in commercials. Moreover, in prime time especially, older characters are often presented unfavorably -- old women are often the victims of violence, and failures, old men are often presented as "bad", and older characters in general are treated with disrespect and presented as foolish and eccentric. While we have tracked the presence of alcohol and drinking in dramatic programs and found that over the past 13 years, about half of all prime-time programs make some reference to alcohol or show characters drinking wine, beer or hard liquor we have only recently examined the portrayal of eating and/or drinking (Gerbner, et al., 1982a).

In our pilot study of a fall 1979 week-long sample of prime-time and weekend-daytime network dramatic programming we recorded instances of eating and/or drinking in two ways -- (1) each time they occurred in the program and (2) each time a major character exhibited these behaviors. These instances included actual eating and/or drinking as well as references to food and/or drink. For example, a character saying "I'm hungry" or "I'm thirsty" was coded as an instance of eating or drinking. We did not, however. code whether or not each and every character ate and/or drank. We also coded whether or not a seat belt was ever used by the character.

Since this pilot project was only conducted on a one week sample of dramatic programming, the number of cases is quite small. Thus, the results of some of the analyses should be viewed with caution. This study also does not give any information about trends in the portrayal of food and/or drinking over time and does not examine the relationship between aging and nutrition in detail.

As Kaufman (1980) found in her sample of 20 prime-time programs, our week-long sample of fall 1979 network dramatic television programming reveals that eating and drinking appear quite often. There were 84 instances of eating and/or drinking in the 62 children's programs included in the 1979 sample (1.35 episodes per program, or 3.75 per hour) and 554 eating and drinking episodes in the 64 prime-time programs (8.67 times per program, or 9.13 per hour). In prime time there are fewer instances of eating and drinking in situation comedies (5.68 incidents per program) than in non-situation comedies (9.86 per program). Moreover, each major character who ate or drank did so an average of 2.58 times per prime-time program and .55 times per week-end-daytime program.

We do not know, however, what percent of all major characters actually eat and/or drink or what characters of different ages specifically eat.

Eating and Drinking in Prime-Time Programs

More than six out of ten eating/drinking episodes in prime-time programs involve eating. About four out of ten eating episodes are meals and less than a quarter are snacks. Drinking appears about the same number of times as eating -- in about six out of ten episodes. Alcoholic beverages appear quite frequently -- in almost a quarter of all prime-time episodes (19.2 percent of situation comedy episodes and 26.9 percent of non-situation comedy episodes). The next most prevelant beverages are coffee or tea (18.8 percent) while milk and soda appear infrequently -- milk in only 2.5 percent and soda in 2.7 percent of the episodes.

Eating and drinking in prime time is quite unlikely to be a solitary activity -- only one in ten episodes show characters eating alone. Most eating and/or drinking takes place with other people, but not family members. Less than one in five instances of eating and/or drinking involved family members. Eating and drinking also do not often occur at home.

Finally, nutritional concerns are almost totally absent. Nutrition was mentioned in only 1.7 percent of these episodes; it appeared in one situation comedy and in seven non-situation comedies.

This pilot study also revealed that eating episodes are equally likely to show men and women eating meals or snacks -- about a third of the episodes show them eating meals and less than a quarter show them snacks. As characters get older, however, they are less likely to be shown eating snacks. Men and women do differ, however, in the beverages they drink. While men, especially settled adults, are more likely to be in episodes with hard liquor, men and women are equally likely to be in episodes showing beer or wine.

Most eating and/or drinking is done with other characters but not necessarily family members. Episodes with women and/or children are, however, a little more likely to show them eating with family members. Episodes with young adults, especially young women, do not usually involve the family. The greatest differences between men and women are found for settled adults. About two-thirds of the episodes with middle-aged men show the men eating or drinking with characters who are not part of their families; less than half of the episodes with women show them not eating with the family. On the other hand, only 15 percent of the episodes with men show them eating with family members, while women eat with the family in over a third of the episodes.

Finally, as Kaufman found, most major characters in these episodes are thin or normal in build -- only 9.2 percent of the episodes had an

overweight or obese character. Men and older characters were a little more likely to be overweight. In fact, the portrayal of elderly characters in this regard is much more realistic than that of younger characters.

The results of our pilot study thus reveal that while food abounds in television drama. characters seem to remain thin and beautiful. Moreover. characters in prime-time drama do not use food wisely or appear to be concerned with nutritional issues. Food is often seen as part of a social scene -- characters eat with other characters, not because they are hungry but to serve social or emotional needs. Food is eaten more or less as something to do. Characters eat meals, sometimes at home, but rarely with their families and rarely while actually dining or in ways that are generally known to be conducive to good health. Characters, especially children, are quite likely to eat snacks, and usually unhealthy snacks. They are also likely to drink alcoholic beverages and coffee or tea but not healthy beverages such as milk. On a final note, although cars are very prevalent in dramatic programming, characters practically never use seat belts. Television thus not only appears to promote poor nutritional habits, but also condones very unsafe driving practices.

This discussion and study however, only brushes the surface of an extremely important area of investigation. We do not yet know which characters eat or drink, why they eat, or what they eat. Nor do we know who is thin, who is fat and whether those characters who are likely to eat are fat or thin. We also do not know whether these images have changed over the years and if so, how they are changed and how these and other health-aging related issues are presented in daytime serials. Moreover. we do not know how any of these portrayals are related to the aging process. These and other questions must be answered before we can fully assess how these images are reflected in people's conceptions of nutrition and other issues relating to health and aging.

## METHODS OF PROCEDURE

As noted above the proposed project consists of two separate but interrelated phases -- (1) message system analysis -- a content analysis focusing upon the image of eating, drinking, nutrition, and health and how these relate to aging in TV drama, commercials, serials, and talk shows and (2) cultivation analysis that will serve to uncover television's contributions to people's conceptions of these issues.

### Message System Analysis

This research paradigm begins with message system analysis, a flexible tool for making orderly, reliable, cumulative observations of programming content. Message system analysis is designed to investigate the aggregate and collective premises defining life in representative samples of mass-produced symbolic material. This analysis rests upon the reliable determination of unambiguously perceived elements of communications. Our existing data base and the data we propose to collect do not reflect what a particular individual sees on any particular evening or afternoon but what large communities absorb over long periods of time. Moreover, we do not attempt to interpret individual programs, networks, or productions nor draw conclusions about artistic merit or the ability to "sell" products. The analysis isolates the patterns and symbolic structures that exist in the samples. The purpose of this particular message system analysis will be to provide systematic, cumulative, and objective observations of how people of different ages live - what they eat, drink, how they "take care of themselves" in the world of television. The analysis and what it yields is somewhat like the view one gets when flying over one's own neighborhood; the territory is familiar but the patterns are different and are seen in a broader context. A full description of the analytic framework can be found in Gerbner (1969).

The proposed message system analysis will be conducted on two types of television fare: dramatic programs and daytime serials. We will conduct an in-depth analysis of the portrayal of aging and eating, drinking, nutrition, and health in prime-time programs aired between 1969 and 1981. It will be conducted on over 700 prime-time programs with a more detailed analysis of programs in which there are characters over 55 and/or physically ill. The analysis will focus upon the program as a whole and the characters who populate these programs. When additional samples of programming are available they will be incorporated into the analysis. We will also conduct a similar analysis of two samples of daytime serial programs. We will complement these analyses by noting the appearance of aging and health issues in talk shows and commercials. We will use station logs to do the former and rely upon our data archives

from "Aging with Television Commercials" (Gerbner, et al., 1981) to study the latter.

The two new message system analyses (dramatic programs and daytime serials) will build upon our prior work in this area. In this research the principal aspects of methodology are the recording instrument, the sample, units of analysis, the training of coders, the coding procedures, the assessment of the reliability of the observations, and data analysis techniques.

Recording Instrument

The first step of the proposed research will be to develop, finalize and pilot test the recording instrument. The same instrument will be tested and used for dramatic programs and serials. This instrument will have two sections -- one focusing upon the entire program or serial. and one for the characters who populate these programs and serials. The proposed recording instrument will be an extended and improved version of the one used in our previously described pilot study and our aging studies. A copy of the earlier instrument is located in Appendix I.

Within the entire program/serial we will examine what kinds of food are eaten and beverages drunk, whether there is any concern with health. nutrition or aging. We will also include items dealing with preventive medicine -- do we see characters exercising or people going for check-ups (medical/dental) -- and medical practices such as doctor-patient interactions, contacts with the health care system, the outcome of illnesses, etc.. Finally, we will focus upon how the aging process is presented and its relation to overall health, preventive and healing practices.

The character section will consist of a large number of items where the coders will denote the presence or absence of specific behaviors. These binary variables will be used because we expect that eating, drinking, and doctor/health practitioner contacts are not one-shot occurrances. For example, a character is likely to eat and/or drink more than one time during a program or serial. These items will focus upon specific foods and beverages, where, when and with whom eating occurs, characters' weight and general concern with the state of their health and exercise, types of interactions, use of medicines, etc.

The instrument for talk shows will be confined to those items that can be easily ascertained from program logs. For examples, topic discussed, time of day, guests, host, etc. We will examine these logs over a six month period so as to gather sufficient information.

Data Collection

All of the new data collected with these instruments will be added to existing data for programs and characters (for example, demographics and the basic dimensions of programs and characterizations). Thus, the data collection phase for prime-time programs will be extremely efficient and only entail collection of data relating specifically to aging and eating, drinking, nutrition, health, and doctor/health practitioner interactions.

As we have not previously examined daytime serial programs, we will have to collect data on all relevant content items including those relating to the entire serial (place, date, setting, themes) and characterizations (demographic items, descriptive -- "good"/"bad" -- items, personality traits, etc.). Nevertheless this phase will also be efficient because each serial and its characters will only be coded once in each yearly sample even though coders will base their decisions upon 10 episodes in each annual sample.

It is important to continue the analysis on two additional samples of prime-time programming (1982 and 1983) so as to provide an up-to-date assessment of trends in programming and to provide a comparison of prime-time and daytime serial programming aired during the same period of time.

We will first review and revise the instrument -- that is, make necessary additions and deletions. We will then conduct another pilot test by having our staff code 10 programs and 2 serials. All problems encountered will be discussed, resolved, and the instruments revised accordingly. The pilot testing phase will also include development of the necessary and appropriate training materials. We will then hire and train coders and complete all data collection.

The Samples

The samples of dramatic programs will be derived from prime-time programs in our videotape archives as well as samples for the 1982 and 1983 television seasons. Dramatic programs date from 1969. The time parameters of the sample from which these programs were selected are as follows. Prime-time programs are those aired Monday through Saturday evenings from 8:00 to 11:00 p.m. EST and on Sunday evenings from 7:00 to 11:00 p.m. EST. Each program in the existing sample has been videotaped, logged, and placed in the videotape archive. Fifteen samples have been drawn over this 13 year period. Twelve of these samples are annual weeks of fall programming. In addition, in 1975 and 1976 (as part of our methodological work on sampling) two week-long spring samples were selected. The 1980-81 sample was videotaped in the spring of 1981 because a strike of the Screen Actors Guild delayed the start of the television season until spring. The new samples will follow the same time parameters.

The size of the yearly sample -- one week of programming -- has been subjected to a number of methodological studies. They have revealed that the week long sample is adequate and that in regard to dramatic programming, the solid-week sample is at least as generalizable to a year's programming as larger randomly drawn samples for basic sample dimensions -- network, program format (television play, feature film, or cartoon), program type (action, western, etc.), and tone (humorous, serious) (Eleey, 1969).

Moreover, analyses of variance conducted on violence-related content data collected over seven consecutive weeks of fall 1976 prime-time dramatic programming revealed no significant differences by week for dependent measures such as the number of violent actions, the duration of violence and the significance of violence. There were, however, significant main effects for program-related variables including network, type of program, time of broadcast, new or continued program and so on; but there were no significant interactions by sample week (Signorielli, in press).

These studies thus indicate that while a larger sample may increase precision, our past work has shown that, given our operational definitions and multidimensional measures that are sensitive to a variety of significant aspects of television content, the one-week sample yields remarkably stable results with high cost-efficiency. And, given that we are exercising the same type of care and will be concerned with developing multidimensional measures in our assessment and reporting of this topic, we feel reasonably sure that the one-week samples are appropriate.

We will videotape two samples of daytime serial programs -- one during the first year of the proposed study and one during the second. Each of these samples will consist of 10 episodes (2 composite weeks) of each nationally broadcast serial; given the current schedule we anticipate the sample will consist of about 16 serials. We will tape these serials over two ten-week periods randomly choosing one day from each week until we have two composite weeks. We will also use any available newspaper or magazine synopses of the serials to provide our coders with detailed information about the characters and their relationships (who is married, having an affair, etc., with whom). Since coders will have ten episodes in each sample to view and print material, we feel confident that this sample size will be adequate.

The data we will reanalyze on commercials were gathered on three weeks of commercials that were aired during the 1977, 1978 and 1979 dramatic program sample weeks. The sample of talk show programs will consist of all daytime talk shows aired over a six month period. Again, these samples will depend upon the availability of program logs and are only intended to provide general comparisons of the frequency and appearance of aging/health-related issues.

Units of Analysis

There are three basic units of analysis that will be examined in the message system analyses: individual fictional stories, entire serials, and the characters in both of these types of programs. The fictional story unit may be a play produced for television (including situation comedies), a feature film or a made-for-television movie broadcast during the sample period. The serial unit will be all episodes for each separate serial. The character unit of analysis will be examined in both the dramatic programs (fictional story unit) and serials. We will look at major characters (those portraying roles essential to the plot) and minor characters (all other speaking roles).

The unit of analysis for the sample of commercials (already analyzed) is an advertisement for a product or a public service announcement. Advertisements by the network for its own programming (that is, promotion of specific programs) were not analyzed. Each specific commercial was coded only once even though it was aired more than one time. The multiple airings were measured, however, by a weight factor for each commercial -- the number of times the commercial was aired during the sample week. Thus we were able to keep track of the relative importance, in terms of number of appearances, of each commercial. Finally, each talk show will be a unit of analysis in this phase of the research.

Coding and Training Procedures

In message system analysis coders are trained to do a specialized kind of observation. They must reliably make the discrimination required by the recording instrument and record them in specific form. Coders must focus only upon what is presented explicitly in the material they are coding and not how it might be judged by a critical viewer. Coders are instructed to be able to point to specific evidence in the program and serial for each coding decision they make. They cannot fall back on or use their prior knowledge of specific programs. For the serials, however, coders will be instructed to use information provided in the newspaper and magazine synopses. The basic task is to generate the data for the subsequent analysis that will permit interpretation of the common message elements and structures that are available to the public of diverse viewers.

For the full analysis of these samples, a coding staff of 20 coders will be recruited and hired to work for a maximum of 20 to 25 hours per week. The training period will require 6 weeks of instruction and testing. Introductory sessions will be devoted to item-by-item discussions of the recording instruments. The trainee groups will be subsequently split into randomly assigned coding teams of two each, and all coder-pairs will begin a training period in which they will view and code ten specially selected dramatic programs and 2 serials that have been viewed and coded by the supervisory staff. Each coder-pair will

work independently of all other pairs, and will return a joint coding for each serial and program. Coder-pairs will then meet with members of our supervisory staff and discuss the difficulties encountered in the training exercise. Coders will continue to code training programs and consult with our staff until all problems are resolved.

The data generated by the coder-pairs on the training programs (including serials) will be subjected to extensive reliability analysis. On the basis of these results, instructions and variables will be further discussed and, if necessary, revised. Moreover, idiosyncratic coder-pairs will be isolated. The coder-pairs who survive this testing process will proceed to analyze the samples of programs and serials.

During both the training and data-collection phases of the project, the coder-pairs will be able to monitor the assigned videotape of the program or serial episode as often as necessary. A subsample of the programs and the entire sample of serials will be coded independently by two separate coder-pairs to provide double-coded data for the final reliability analysis.

Assessment of Reliability

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

Our reliability assessment requires the calculation of an agreement coefficient for each content item in the recording instrument. Five computational formulae are currently available for calculating these coefficients. The variations are distinguished by a difference function, the form of which depends upon the scale type of the particular variable being analyzed. Except for their respective scale-appropriate sensitivity to deviations from perfect agreement, the coefficients make the same basic assumptions as the prototype for nominal scales devised by Scott (1955). Thus, in the case of the binary variable, all formulae yield identical results (Krippendorff, 1970; 1980).

The agreement coefficients range from +1.00 to -1.00, where +1.00 indicates perfect agreement and .00 is agreement due solely to chance. A coefficient of .50 indicates that performance is 50 percent above the level expected by chance. We have defined acceptable levels of reliability as follows. Items with agreement coefficients of .8 or above are considered as unconditionally reliable, items with coefficients

between .6 and .8 are accepted conditionally, while items whose coefficents fall between .5 and .6 are used with extreme caution. Any item whose agreement coefficient is less than .5 will be excluded from any subsequent analysis and will be either revised or discarded before the next phase of message analysis data collection.

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

The present proposal calls for a separate reliability analysis for the samples of serials and dramatic programs. All of the serials and approximately one-third of the prime-time programs will be coded by two independent pairs of coders and data will be subjected to the reliability analysis. Only those items meeting the acceptable levels (as stated above) will be included in the final analyses and reports.

The Data and Data Analysis Techniques

The final set of data will be compiled from the double-coded reliability data base by randomly selecting one of the two codings for each prime-time program and serial. The final data set for prime-time programs will also include data generated from programs not included in the reliability analysis. As a last check against deviant coding, and before the final data selection, reliability measures will be computed for each coder-pair. This procedure will help identify problem coder-pairs who may not have been screened out in the training and pre-test phases. In such an instance. the data recorded by the questionable pair will be excluded from the final selection.

The final sample of data will be subjected to an extensive data analysis, including trend analyses. Statistical techniques will primarily include multi-dimensional cross-tabulations. Association procedures, such as contingency and cluster analysis, will also be used to examine constellations of certain types of content data such as themes and binary characterization attributes. Where possible we will devise multi-dimensional indices composed of a number of content items relating to a particular topic. These measures will enable us to take a number of different aspects of the portrayal of various topics into account: for example, how the topic is portrayed in the program, in characterizations, and so on.

The data on commercials were previously gathered using all of the above described methodology. These data will now be analyzed in greater detail.

Finally, we will issue a report of the basic dimensions of the portrayal of interrelationships of health and aging in prime-time dramatic programs and commercials, daytime serials and talk shows.

## Cultivation Analysis

Questions about the influence of a broad medium of enculturation are very different from the usual research questions about individual messages, campaigns, or programs. Thus, the traditional procedures used in media effects research must be reconceptualized and modified to be appropriate for the study of television's effects.

First, we cannot presume consequences, as conventional research paradigms often do, without prior investigations of content. Nor can the study of content be limited to isolated elements (such as news, commercials, particular programs) taken out of context, or to the selections made by individual viewers. Only a system-wide analysis of these messages (as achieved through our message analysis) can isolate the symbolic world which structures common assumptions and definitions for viewers. The system as a whole plays a major role in setting the agenda of issues that people will agree or disagree about; it shapes the most pervasive norms and cultivates the dominant perspectives of society.

Although a conventional research assumption is that the experiment is the most powerful method, and that change (in attitudes, opinions, likes-dislikes, etc., toward or conveyed by "variable X") is the most significant outcome to measure, experiments are not the best way to study television's long-range effects. In the ideal experiment, subjects are exposed to X and the researcher assesses salient aspects of the receivers both before and after exposure, and compares the change, if any, to data obtained from a control group (identical in all relevant ways to the experimental group) who have not received X. No change or no difference means no effect.

When X is television, however, we must turn this paradigm around: stability (or even resistance to change) may be a significant outcome of viewing. Moreover, if nearly everyone "lives" to some extent in the world of television, clearly we cannot find unexposed (control) groups who would be identical in all important respects to the viewers. Finally, experimental designs are not the most appropriate way to study the effects of television because they are not comparable to people's day-to-day viewing habits, either in content or in context.

Much of the research on media effects has focused on the observation and measurement of behavior which occurs after a viewer has seen a particular program or even isolated scenes from programs. All such studies, no matter how clean the design and clear the results, are of limited value because they ignore a fundamental fact: the world of television drama consists of a complex and integrated system of characters, events, actions and relationships whose effects cannot be measured with regard to any single element or program seen in isolation.

Neither can we assume that television cultivates conceptions easily distinguishable from those of other major entertainment media. (But we cannot emphasize too strongly the historically novel role of television in standardizing and providing the common norms for what had before been more parochial, local, and selective cultural patterns.) We assume, therefore, that television's standardizing and legitimizing influence comes largely from its ability to amplify and ritualize the conventional capsules of mass produced information and entertainment. The effects of television are most likely to be those of the centralization and efficient organization and popularization of those elements of mainstream culture that best support the medium's institutional mission.

Cultivation analysis begins with and builds upon the patterns found in the world of television -- its dramatic programming and its commercials, daytime serials, and talk shows and seeks to determine, via survey methodology, how these images are reflected in views, expectations, definitions, interpretations, and values held by its audiences. Does exposure to the symbolic world of television cultivate conceptions about the real world among viewers?

The basic hypothesis underlying cultivation analysis is that heavier viewers of television, those more exposed than lighter viewers to its messages, are more likely to understand social reality in terms of the "facts of life" presented on television. To investigate this idea we design a series of questions about social reality and ask them in a survey or we find suitable questions in surveys that are available for secondary analysis. In some questions we examine a specific topic by juxtaposing the findings of our message system analyses with the findings of independent and/or direct observations, such as U.S. Census figures, about real life.

For example, we have found that television drama grossly under-represents older people. Those over 65, comprising 11 percent of the U.S. population (and growing), make up only 2.3 percent of the fictional population. Moreover, more than half of the character population is between 25 and 45 -- a pattern that more accurately reflects the real-life distribution of income by age.

We tested whether this message of relative invisibility was differentially reflected in the conceptions about aging held by light and

heavy viewers by constructing an index from responses to statements in the 1974 National Council on Aging's "Myth and Reality of Aging" survey asserting that the number of older people, the health of older people and the longevity of older people are declining. (Factor analysis revealed that only a single dimension underlies these variables; they produce a moderate but acceptable alpha of .56 and more than adequately pass a series of validity checks; Gonzalez, 1979.) A high score on this index reflected the television view of the world -- a generalized belief that older people represent a diminishing rather than a growing segment of American society (Gerbner, et al., 1980a, 1980b). Our analysis of this index revealed that heavy viewers are significantly more likely than light viewers to believe that older people are a vanishing breed.

Our message analysis also has consistently revealed that women "age" faster than men on television; that is, compared to males of the same chronological age, female characters are more likely to be portrayed as "old." The implication of this finding was examined by analyzing responses to questions (asked of adults in the NCOA survey and teenagers in our New Jersey sample) about when (at what age) a man/woman becomes old. Again, we found that heavy viewers, especially among teenagers, believe that old age -- particularly for women -- begins relatively early in life.

In sample after sample, and on an increasingly wide variety of topics, we find that heavy viewers are significantly more likely to give "television answers" -- responses more congruent with the television image than with the "facts" -- to questions about their conceptions of social reality. We have found substantial evidence that, in addition to conceptions of aging, television cultivates images of fear, danger, mistrust, and alienation (Gerbner, et al., 1978, 1979, 1980d), as well as stereotypes about sex-roles (Signorielli, 1979; Gross and Morgan, in press; Gross and Jeffries-Fox, 1978).

Variations in Susceptibility

It is extremely important to implement controls for major demographic variables because amount of television viewing as well as respondents' conceptions of social reality may be determined or influenced by their demographic profile. In the past these controls have primarily been used to guard against spuriousness; and, for the most part, the relationships stand up well under such controls. We have also found, however, that the patterns are not identical across subgroups. Specifically, (Gerbner, et al., 1980d, 1982) we have found two general processes -- "mainstreaming" and "resonance" -- which explain variations among different groups. "Mainstreaming" implies that differences deriving from other influences may disappear among heavy viewers; rather than absolute, across-the-board cultivation, the impact of viewing may be restricted to those who would not otherwise share a given perspective. "Mainstreaming" thus implies a convergence, a homogenization of outlooks among "otherwise" disparate groups.

"Resonance," on the other hand, occurs when a given feature of the television world is most congruent with the social circumstances of the viewer. In these cases, heavy viewers receive a "double dosage" of messages, and the interaction "resonates" with and amplifies television's impact. For example, the relationship between television viewing and fear of crime is most pronounced among those who live in high crime urban areas -- where the environment is presumably most parallel with the television image.

The present study seeks to investigate the extent to which television cultivates images, values, and actions regarding the healthy functioning of older people, incorporating the above discussed theoretical developments. Issues related to aging and health may be particularly suited to such analyses, because of the considerable variance in the public's health behaviors and ideas about aging.

We propose to investigate these issues in two ways: (1) conducting secondary analyses of available survey data and (2) commissioning a new national probability survey focusing specifically upon these issues. The proposed research will examine these issues on a general level as well as focus on the specific susceptibility of older people to these processes, particularly as it relates to their self-images and health-related behaviors.

In addition, we expect to find mainstreaming among older respondents; that is, among older people, we may find that those groups who might "otherwise" be most aware of preventive and self-help behaviors (e.g., those with more education) are most vulnerable to the cultivation of complacency and unhealthy lifestyles. (The views of groups who would normally be very different are quite similar when they are heavy viewers.) In regard to resonance, we would expect that if television presents older people as unhealthy and practicing poor health habits then the health-related conceptions of older viewers who are <u>both</u> heavy viewers and in poor health would be most likely to reflect what is seen on television. It is important to note that in resonance it is the actual state of the respondent's health that may trigger cultivation, while in mainstreaming more general demographics come into play. More specific hypotheses would, however, be premature at this time because they must be developed using the results of an appropriate message system analysis.

<u>Secondary Analysis of Existing Data Bases</u>

We propose to conduct a large portion of this research through secondary analyses of existing survey data. A number of data bases in our archives contain questions about health images and behaviors that are suitable for secondary analysis. These include questions about smoking, drinking, health satisfaction, and confidence in medicine from the National Opinion Research Corporation's General Social Surveys (N=6020); questions about eating habits and health concerns from a survey conducted

by the Roper Organization for Virginia Slims (N=3944); a few relevant questions in a national survey with an oversampling of older people conducted by Research and Forecasts, Inc. for the Connecticut Mutual Life Insurance Company (N=1610); and a broad range of questions about older people's health concerns from the Louis Harris National Council on Aging's 1974 survey (N=4254) on "The Myth and Reality of Aging" and 1981 survey "Aging in the Eighties: America in Transition" (N=3427).

Some preliminary analyses of a few of these questions were presented above. The proposed study will conduct more detailed and complete analyses of these data. The 1981 NCOA survey will be the major focus of secondary analysis both in and of itself and in comparison with the 1974 survey. Of the total 1981 NCOA sample of 3427 respondents, 1495 are a national cross-section of adults (a multiple random cluster design based on region and size of place) and the remainder represent over-samples of older people, blacks, and Hispanics. The data base includes 1265 respondents over 65. and 492 respondents between 55 and 64. This data set (and the 1974 study as well) contains many useful dependent variables. Questions deal with respondents' beliefs about the onset of old age; the relative physical and financial well being of the elderly compared to ten or twenty years ago; the availability and use of health services; medical planning; involvement in social and community activities; retirement; and a broad range of social and psychological age-related life-satisfaction dimensions. Most of these variables were also asked in the 1974 survey.

The 1981 survey, however, does <u>not</u> include a measure of hours of viewing on an average day (our preferred measure); rather, respondents indicated whether they spend "hardly any," "some, but not a lot," or "a lot" of time watching television. While this measure may seem relatively weak, we were able to estimate its reliability in the 1974 survey (which includes both this and the regular hours of viewing measure); they are related fairly strongly, though not perfectly (gamma = .63), based upon a trichotomization of the hours of viewing measure. Those who say they watch "hardy any" television also report an average of 1.07 hours of viewing; "some but not a lot," report 2.08 hours; and "a lot" report 3.29 hours ($p < .001$). This measure, therefore, can be used with at least some confidence. In particular, it will help to determine the most important items and types of items which can then be used in a new national survey.

<u>Development and Implementation of a New Survey</u>

Given the inherent limitations of secondary analysis -- no available survey contains both a range of items about health/aging images and behaviors and an appropriate television viewing measure -- we propose to collect new survey data designed specifically to reflect the findings of our message system analysis and the secondary analyses of available surveys. This personal interview survey will be conducted by a professional survey research firm, such as the Opinion Research

Corporation, as part of a quarterly caravan survey. We have used this service in the past and find that it is an efficient, reliable, and inexpensive way to collect data from a national probability sample. In this case, we would also oversample older respondents. We expect the unweighted sample to include about 2000 persons, of whom at least 750 will be over 65.

The final determination of the specific questions we will ask will depend on the results of the message system analyses and the secondary analyses of available data bases. Below are examples of the kind of questions we plan to use. The final instrument will include about 20-25 items, including media use measures.

I basically eat what I like and don't pay a lot of attention to nutrition (true/false)

I don't trust a drug product unless I know the brand name (true/false)

I often take something to calm my nerves (true/false)

People have a variety of different needs. For each of these statements, please tell me wheter this is something for which you feel a strong need, some need, or no real need:

to get ahead financially, to be in better physical shape, to understand myself better, to have closer ties to my doctor, to indulge myself from time to time, to be respected by my neighbors, to eat better than I do now

You don't get as good medical care at a public health clinic as you do from a doctor (agree/disagree)

I'm sure that they will come up with a cure for cancer any day now (agree/disagree)

Older people today are generally healthier than older people of 20 years ago (agree/disagree)

At what age does the average man become old? The average woman?

As I grow older. things seem better than I thought they would be (agree/disagree)

These are the best years of my life (agree/disagree)

I am just as happy as when I was younger (agree/disagree)

How much confidence do you have in the people running medicine today? In your own doctor?

Do you think that medical science today can cure almost all. most, only some, or hardly any diseases?

Other questions will measure involvement in social and community activities; volunteer work; retirement plans/changes; and health. loneliness, proximity of relatives, fear, and financial well-being. In addition to television viewing (both prime-time and daytime), we will also measure use of other media (radio, magazines, newspapers).

Dimensions of Analysis

The statistical analyses that will be performed to test our hypotheses range from the extremely simple to the methodologically sophisticated and complex. 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" television viewers (using as near to an even three-way split as possible when we have an "hours of viewing" question) 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 expresses 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. And, 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.

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

We will then turn to statistical analyses that focus on the functional form of the association and tests for linearity. If we find that the 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 by revealing whether viewing adds a significant increment to total explained variance. We will especially focus upon designing analyses that will help isolate "mainstreaming" and "resonance."

We will also develop and use indices formed by summing responses to questions related to a specific topic. These indices will be tested for reliability (in terms of unidimensionality and internal homogeneity) to insure that each item actually belongs in the index. These indices will then be subjected to the same type of statistical analyses as individual questions.

When multiple indicators of a specific variable 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 an estimate 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.

The data provided from the message system analysis, the new specially designed survey, the 1974 and 1981 NCOA surveys on aging conducted by Harris, and other surveys currently available for secondary analysis will provide the most comprehensive way to examine the contribution television makes to people's (especially older people's) conceptions of aging, health, the aging process, and the inter-relationship between health and aging.

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# APPENDIX I

## EXAMPLES OF PREVIOUS RECORDING INSTRUMENTS