STATE UNIVERSITY OF NEW YORK
AT STONY BROOK

DEPARTMENT OF PSYCHOLOGY

STONY BROOK, N.Y. 11790

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Dr. George Gerbner
Annenberg School of Communications
University of Pennsylvania
Philadelphia, Pennsylvania 19104

Dear George:

Paul Ekman and I hope to do a major experimental field study of the effects of television in Micronesia, one of the few remaining "TV naive" cultures. Because of your own work we thought you might be interested; we would also be very grateful for your suggestions and criticisms of our research plan. A copy is enclosed.

If time prevents you from sending written comments, please just call me collect. I'll record the phone conversation, have your remarks typed up and send a copy back for your records.

Best regards,

Robert M. Liebert, Ph.D.
Associate Professor

RML/pcd

Paul Ekman

RESEARCH PLAN

A. INTRODUCTION

1. OBJECTIVE

In Western television societies, such as the United States, Canada, Britain, and Western Europe, the potential importance of television was not fully recognized at the time of its introduction. We now have a better understanding of both how pervasive it is in the daily lives of viewers and how influential it is on viewer behavior and attitudes. For example, it has been suggested that televised representations of aggression may induce aggressiveness in viewers and that representations of prosocial behaviors may, on the other hand, result in increased positive behavior. Nevertheless, research on the effects of television is extremely difficult and costly when the medium is diffused throughout a society and certain key questions may become very difficult to answer. The magnitude and duration of the long-term impact of television programming is difficult to determine because (a) it is almost impossible to untangle the influence of television from other factors in a child's development; (b) by the time a child is old enough to respond to appropriate verbal and behavioral testing he usually will have seen thousands of hours of television; and, (c) it is impossible to control the television diet over an extended period of time except with populations who are peculiar (i.e., institutionalized patients, delinquents, etc.).

Our primary objective then is to determine the magnitude and duration of the long-term effects of television on the aggressive and prosocial behavior of children. We will accomplish this by conducting an experimental field study in a culture in which television has not yet been introduced where we can:

- study children with no prior television exposure
- obtain pretelevision exposure baseline measures of social behavior
- control the television diet over a 4 to 8 month period
- compare the impact of different types of programming (aggressive, prosocial and a control diet).

2. BACKGROUND

Previous work in the U.S. The effect of visual media on children has been a social concern since the advent of the motion picture and the comic book (e.g., Blumer & Hauser, 1933; Charters, 1933; Wertham, 1954). With the introduction of television this concern has been magnified. TV multiplies the presentation of mediated violence, making it available to more children, more of the time, in more forms and, often, at an earlier age than any of its predecessor forms of entertainment.

Analysis of television fare suggests that the average young American TV viewer sees, between the ages of 5 and 14, some 13,000 human beings violently destroyed. With a growing concern about violence in modern domestic--and international--societies, more and more attention has been devoted to the possible role of the mass media in stimulating or mitigating interpersonal aggression. Recently, this concern culminated in an extensive research effort under the auspices of the Surgeon General's Scientific Advisory Committee on Television and Social Behavior (1972). A review of those studies and the earlier literature was prepared for the Committee (Liebert, 1972) and will be sent later as supplemental material.

At the conclusion of the Surgeon General's program, which included 23 research studies by various investigators, Surgeon General Steinfeld made the unequivocal statement that:

> Certainly my interpretation is that there is a causative relationship between television violence and subsequent antisocial behavior, and that the evidence is strong enough that it requires some action on the part of responsible authorities, the TV industry, the Government, the citizens. (1972, p. 28)

The Surgeon General's Scientific Advisory Committee made recommendations about the kinds of research still needed on the effects of television. Noting the abundance of investigations on antisocial behavior, it suggested that there has been a serious neglect of possible learning of positive or "prosocial" lessons through television. Further, attention was called to our lack of knowledge concerning the "long-term effects of repeated exposure to standard television fare on the personality development of the child." (1972, p. 114)

Previous work in TV-naive societies. Scholars have long been concerned about the impact of powerful new media on society. Empirical research has examined the introduction of television in Britain (e.g., Himmelweit, Oppenheim & Vince, 1958) and in the United States (e.g., Schramm, Lyle & Parker, 1961). Similarly, the effects of mass media in developing countries have been examined (e.g., Schramm, 1964). A broad range of possible influences have been noted and the relevant evidence summarized (e.g., Atkin, Murray & Nayman, 1971; Goranson, 1969; Tannenbaum & Greenberg, 1968; Weiss, 1971). These reports leave no doubt that the impact is powerful, if difficult to describe with the desired precision. The comments of one member of our research team (Donchin) on the effects of television's introduction into one Micronesian culture well describes the magnitude of the effect:

> ...[During] the first year of television [in a village of Saipan] it was far easier to see the changes set in motion than in the United States, where layers of variables mask its impact. On Saipan, the changes in life styles, as well as in social and economic expectations could be readily seen. The confidence of the local people in mass essential services was severely undermined. The hospital came under fire--"Why can't we have a medical center?" The medical officer's style of patient care was threatened to the point they went on strike. "Why can't you be more like Marcus Welby?" Teachers, lawyers, police, all began to be judged by the distorted models presented in many programs. (Donchin, 1972, Pp. 7-8)

It is obvious that many of the questions which may be most important have not been explored adequately--or at all. In the early days of television, the potentially pervasive influence of the medium was not readily apparent; both theory and methodology were still primitive, and funding support was very limited. Now, when we have hindsight, the number of cultures which are still television-naive is fast diminishing and recent opportunities for study have been missed. Relatively little was done in studying the effects of the introduction of television in Israel (e.g., Katz, 1971). However, Thomas Dunn and Bragi Josepson are currently studying the effects of introducing television in Iceland. Similarly, Jay Blumler and his associates at Leeds are studying the introduction of television into one of the remaining Welsh towns without TV. Finally, Ekman and Harrison examined the feasibility of studying the introduction of television in South Africa (grant from the National Science Foundation, 1971; Harrison & Ekman, in preparation). A proposal for a study in South Africa which parallels the study proposed here in Micronesia, is currently under review by the Markle Foundation.

The investigators who have collaborated in preparing this proposal (Ekman, Liebert, Harrison & Friesen) have worked together before in an experimental study of the short-term effects of television violence on children. This study was supported by a contract from the Surgeon General's Advisory Committee on Television and Social Behavior (Ekman, Liebert, et al, 1972). We are continuing experimental studies of television effects on the behavior of children: Liebert, Poulos, Neale and Rubinstein are studying prosocial programming on children; Ekman, Harrison, and Friesen have a grant under review which would allow them to continue to study the facial expressions of the viewer while he watches violent programming, as a predictor of subsequent social behavior (Affect, Altruism, Aggression and TV Violence, MH 24099-01). Liebert (Liebert, Neale & Davidson, 1973) has just published a book discussing television and social behavior.

In preparing this proposal to study television in Micronesia we were joined by Gwyn Donchin and Dan Smith. Donchin has spent two years in Micronesia, is currently a consultant to the Pacific Broadcast Corporation (which is responsible for commercial television in Micronesia) and has been a consultant to the Micronesian Congress. Smith, who spent two years as a Peace Corp Volunteer in Micronesia, is a graduate student in Communications at Stanford University, and will do his dissertation this year in Micronesia on the influence of television in Saipan (a retrospective study).

3. RATIONALE

Micronesia appears to be uniquely amenable to study. Since 1947 it has been a U.S. Trust Territory and has thus experienced many inputs from the U.S. culture. There have, for example, been as many as 200,000 American military personnel stationed there. Similarly, since 1966 there have been almost 3,000 Peace Corps Volunteers--the heaviest per capita assignment of Volunteers anywhere in the world. Today English is the lingua franca of the islands. Only Saipan, however, has had any experience with television. When television comes to the rest of Micronesia, within the next three years, broadcasting will be in English and taken directly from current American commercial offerings.

Before commercial television is brought to the rest of Micronesia it is still possible to determine experimentally its likely effect on the young.

Outside intervention in a society's cultural values is a serious matter. In the present case, however, the Micronesians themselves have already made the decision to introduce television. Television has already been launched in Saipan; charters have been granted for Truk and Palau; and a resolution was introduced in the Micronesian Congress requesting the High Commissioner of the Trust Territory to introduce educational TV on Ponape. At present, however, the Micronesians have no guidelines for the specific type of programming they will seek (or avoid). Judging from the experience in Saipan, the other districts will get the usual range of U.S. fare unless they actively seek alternatives. In an effort to determine some of the possible effects of various types of entertainment fare on their culture, the Micronesians have invited the research described in this proposal (See Appendix A).

Through the research described in this application the Micronesians will have an opportunity other nations have not had to preview some of the effects of the kind of television they are now anticipating and of some of the alternatives. Thus, if the limited introduction of television in the controlled experiment does have adverse effects and/or if other programming has effects judged particularly desirable, the Micronesians will be in a unique (and perhaps enviable) position to

determine the role of a major socializing influence on their children.

Clearly our intent in this study is not solely to provide information to the Micronesians which will help them in planning what to do about introducing television into their cultures. Our intent is also to use this unique opportunity to study both the magnitude and the duration of the impact of televised violence and prosocial programming on the behavior of children. Only in a setting where there is no television can we accomplish our objectives, because only in such a situation is it possible (a) to obtain a pre-exposure baseline measure, and (b) to control the television diet for a period of months for normal, non-institutionalized children. We believe the findings will have basic relevance to the issues important to societies which already have television.

We recognize that generalizing from Micronesia to an urban-industrialized society is problematic. While the children we will study are subject to many of the same media inputs (radio, cinema) as children in an urban, industrial society and also attend schools patterned after schools in the U.S., they are also the product of a society which has very different cultural values, ecology, etc. We have three answers to this problem of how to generalize the results we obtain in Micronesia.

First, we are seeking the aid and possible participation of anthropologists expert in the area of Micronesia in which we will be working. We are seeking advice on our procedures, and suggestions as to data we could gather which would help us interpret our findings and their generality (see Method, Section 5c).

Second, we are seeking support to conduct this study in two different cultures in Micronesia. In this proposal we have described and budgeted for only one culture because of suggestions that we limit the budget. The third part of the budget justification provides a budget for adding a second culture to this study. The costs are not twice as high, because many of the preliminary steps (preparation of videotape programs, planning, training, visits to Micronesia) need not be duplicated. We are seeking support for conducting this study in two cultures in Micronesia, because we believe comparisons of the results in two different cultures will significantly aid us in interpreting the findings and in establishing their generality. If neither of the federal agencies to which we are submitting this proposal undertakes to support the study of a second Micronesian culture, but does support the research in one culture, we will seek funding from private foundations for the second culture.

Third, we are actively seeking support from private foundations to conduct the same proposed study in South Africa, where children in an urban, industrial culture could be subjects. Similarities in the findings from Micronesia and South Africa would clearly help establish that the Micronesian findings were not limited to non-industrialized settings. It might be asked why we are not here proposing to conduct our study in South Africa rather than Micronesia. There are two answers. Television is not scheduled for South Africa until 1977, while it is imminent in Micronesia; and political considerations make Micronesia a more promising place in which to work and for which to obtain funding. If the research in Micronesia is undertaken, we believe that similar studies will be conducted subsequently in South Africa even in the absence of support from U.S. foundations. Ekman and Harrison in their trip to South Africa a year ago did locate a number of South African investigators who are interested in the research described in this proposal. The stimulus input, viz., the videotaped programs, would be provided to the South Africans, as would advice on the methodological problems encountered in Micronesia.

Because we believe that the Micronesian research project proposed here is of fundamental value and of interest to a wide number of behavioral scientists, and because the opportunity offered in Micronesia is one of the very last chances to study English-speaking, television-naive subjects, we have taken special care to seek advice from as many of our colleagues as time allows. As this proposal is being reviewed we are seeing further advice and suggestions from a number of colleagues.

B. SPECIFIC AIMS

Our aim is to study the long-term effects of television programming on the social behavior of children and, more specifically, to determine the extent and duration of changes in prosocial or aggressive behavior as a function of whether children have been viewing aggressive, prosocial or neutral programming.

Depending upon the length of the period required to obtain stable baseline measures of prosocial and aggressive behavior, and depending upon the nature of the changes noted in the exposure period, the exposure period could vary from four to eight months. (This is explained under "contingency design changes" in the Method section below.)

C. METHODS OF PROCEDURE

1. DESIGN

The central experiment of this proposal is cast as a 2 (sex) X 3 (treatments: aggressive, neutral or prosocial television) X 5 (measurement periods: pretest and four subsequent periods during treatment) factorial design.

The treatment consists of exposure to aggressive, neutral or prosocial television programs in the public school classroom, one-half hour daily, five times per week.

All participants will first be observed for four weeks in order to obtain a baseline on all measures. They will then be exposed to a continuous four-month treatment, separated into 4 four-week time blocks for purposes of analysis.

Assignment. Assignment to treatments will be according to schools: two schools receiving aggressive fare; two receiving neutral fare; and two receiving prosocial fare. Assignment to both treatment and reversal or subsequent follow-up [see below] will be on a matched-random basis (Neal & Liebert, 1973).

Follow-up and reversal procedures. After four months the neutral group will be divided; some of these children will be exposed to aggressive fare and some to prosocial fare for four months. Information will thus be obtained as to the effects of aggressive and prosocial programming on those who are no longer entirely television-naive. Likewise, some of those formerly in the aggressive program group will be shifted to prosocial fare and vice-versa; the remaining children in these groups will have television discontinued for the final four months, to permit an evaluation of the durability of program effects. Each of these procedures supplements the basic design and will help to maximize the amount of experimental information which can be obtained with a moderate-sized overall N.

Contingency design changes. If the baseline period requires more than four weeks for stability of measures, and the time remaining is insufficient for the follow-up and reversal procedures, then these will be omitted. We consider this

unlikely, since we will have had four months in the previous year to work on the problem of obtaining stable baseline measures. Similarly, if the measures of either aggressive or prosocial behavior show no signs of an asymptote at the end of the four-month exposure period, or if they show marked variation rather than stability, the follow-up and reversal procedures will be sacrificed, and the main treatment continued.

Further control procedures. Both the baselines and the neutral television groups provide comparison base controls for assessing the impact of different types of entertainment offerings. Assessment of the impact of television per se, however, remains confounded with time in the basic design. We will therefore employ a measurement control group of children who will be repeatedly assessed over the experimental period in the same fashion as those receiving the treatments, but who will have no exposure to television. Insofar as possible, these classrooms will be matched to the experimental ones on age and pertinent demographic variables.

2. PROPOSED TENTATIVE SCHEDULE

a. March, 1973: Ekman, Liebert, and Donchin to visit Micronesia for initial contacts and set-up. (Privately funded)
b. October-December, 1973: Training of on-site investigators in U.S.; input preparation begun.
c. December, 1973-January, 1974: Set-up for baseline test.
d. February-June, 1974: Baseline check; refinement and modification of all measures.
e. July-August, 1974: Input preparation completed.
f. September-October, 1974: Pre-test--obtain baseline data.
g. November, 1974-Feburary, 1975: Experimental inputs.
h. March-June, 1975: Experimental inputs reversed and follow-up completed.
i. July-December, 1975: Data analysis completed and report prepared.

3. SUBJECTS

The subjects for this study will be approximately 240 children, equally divided by sex, ranging in age from nine to eleven years. They will be drawn from six classrooms in six public schools in the one district of Micronesia. Gwyn Donchin made a trip to Micronesia in the late fall of 1972, after Ekman, Liebert, Harrison, Friesen, Smith and Donchin had met and agreed upon the outline of the research proposal. Donchin explored the feasibility of the study in terms of both local acceptance and logistics, in four district centers: Palau, Yap, Truk and Ponape. Appendix A describes the support for the study from members of the U.S. Trust Territory Administration, from district centers, from the Micronesian Congress, and the Pacific Broadcast Corporation.

At this juncture it appears that Yap cannot be considered, because there are not enough children to meet the needs of the design located within reasonable distance for the field investigators to traverse. The most likely sites are Truk and Ponape. During the initial visit to Micronesia (March 1973) Ekman, Liebert and Donchin will explore in detail the selection of sites and subjects. The cooperation of community officials will be sought with care, and permission from families directly involved in the study will be secured.

Children in the age range of nine to eleven were chosen, rather than younger children, because younger children do not comprehend the English language well enough to understand American television programs. (Data on English comprehension

will be available on each subject selected.) A developmental variable, including an older age group, was rejected because of budgetary constraints. We consider it more important to incorporate an adequate control for the possibility of biasing due to school-treatment assignments, and an adequate control for the effect of simply viewing television, provided by the neutral treatment, than to sacrifice either in favor of a developmental variable.

4. STIMULUS MATERIALS

The design of the major experiment requires that children view specially selected television programs of either prosocial, neutral, or aggressive content for one-half hour daily, 5 days a week, for 4 months. Thus, for each type of content, approximately 40 hours of programming must be available.

In all cases, the programming will be drawn from TV fare that has been, or presently is, aired on commercial or educational channels in the United States. Not only do we already know something about the effects of some of this programming but, more importantly, it will in all likelihood be the predominant television fare to reach Micronesia upon TV's inception there.

Commercials appearing on the programs will be edited out and replaced with available public service announcements chosen with care to be as neutral as possible and inoffensive. The purpose of this is to preclude any possible objections on the part of parents to commercial content, a dissatisfaction frequently voiced by U.S. parents.

Our first concern, then, is to have available commercially broadcast programs. We have at least 3 sources:

(1) programs already videotaped by investigators at the Annenburg School of Communications;

(2) a library of programs maintained by the Pacific Broadcasting Corporation, which will be responsible for TV's inception into Micronesia;

(3) programs to be videotaped at the State University of New York at Stony Brook, assuming financial support.

Our second requirement is to be able to say with confidence what programming is and is not aggressive, neutral, or prosocial in content. We also must have some prior expectation about the influence of specific content on children. Efforts in this direction have already been begun at the State University of New York at Stony Brook under the guidance of R. M. Liebert and R. W. Poulos. In this regard, we have been in touch with other investigators who are working on the same questions, and have every reason to believe that their cooperation can be counted on.

Aggressive programming. Of the three types of programming to be employed, aggressive fare will be the easiest to select because of extensive previous investigation in the area. We will rely heavily on the past and ongoing work of George Gerbner, Dean of the Annenburg School of Communications, University of Pennsylvania, who has offered the use of his TV library and coding records. Gerbner and his associates have videotaped one full week in October of prime time television appearing during each of the last six years. Employing a coding system they devised, they also have coded this television fare according to the amount of aggression, defined as intended acts of physical or verbal abuse directed by one human being against

another. From this effort we can not only identify aggressive programs but also know what specific kinds of aggressive programs children in the U.S. view.

The aggressive programming that we will employ will consist of a variety of cartoon, western, war, spy, science fiction, and law enforcement fare. These different types will be shown in the same proportion in which they were broadcast in the United States in recent years. Any individual TV series known to be consistently aggressive may be presented according to its usual schedule; that is, a weekly show will be presented once a week, and so on.

Prosocial programming. Coding of television programs for prosocial content has been begun at the State University of New York at Stony Brook. Following closely the methods employed by Gerbner, Liebert, Poulos, Neale, and Rubinstein are constructing a system to code behaviors that are frequently considered prosocial, both in our own and in other cultures. We have contacted Aletha H. Stein, at the Pennsylvania State University, to consult with her on this work, since she has coded children's programs for prosocial content.

Behaviors categorized as prosocial include sharing, helping others, cooperation, self-control, friendliness, and delay of gratification. They appear primarily on children's specials and situational comedies, such as "Courtship of Eddie's Father," and "Family Affair." By the time the Micronesia study is underway, we will have a library of programs for which we know the frequency of a variety of prosocial examples. We will also have tested the influence of such programming on children's sharing, cooperation, helping, and so on.

Neutral programming. Neutral fare will be determined largely by the absence of both aggressive and prosocial content in such programming as situational comedy, adventure, cartoons, etc.

5. DEPENDENT MEASURES

Three dependent measures will be employed: recording by trained observers of children's social behavior in the classroom, teachers' ratings of their students' classroom behavior, and parent interviews.

a. Classroom observations by trained observers. The primary dependent measure will be observations of social behavior, both prosocial and aggressive, in the classroom as recorded by "outside" trained observers. (Outdoor free play will not be recorded, because most schools have no enclosed outdoor area, and children often wander considerable distances.) These measurements will be gathered first in a pretest period of two to four months in the first year of the project, during the last months of the school year (March-June, 1974). The purpose of pretesting is to determine the best procedures, test the appropriateness of the measurement items in the Micronesian culture, determine stability of the measures, and provide practice for the observers. The exact population to be employed for pretesting will be determined after further information about the school system is obtained during an early on-site visit.

The baseline data for the children in the experiment will be collected immediately prior to television exposure, tentatively during September and October, 1974. The exact length of the baseline period will be determined by analysis of the pretest period measurements, as well as analysis of the baseline period measurements as they are collected. We expect some instability as a result of introducing observers and

television recording equipment into the classroom. Also, the beginning of the school year may itself be a less stable period. Once matters have stabilized, television will be introduced and the measurements of social behavior will be continued through the television exposure period (beginning approximately November, 1974).

Three types of social occasions will be studied.

(1) Regular classroom teaching sessions: a one-hour period before and a one-hour period after the television exposure period. Depending upon access and comparability across schools, measurement during lunch hour may be substituted for part of the teaching sessions. Since there will be no TV during the baseline period, these two hour-long observations will be separated merely by ongoing classroom activities.

(2) Free play: a five-minute free play period within the classroom.

(3) Television viewing: a thirty-minute period during which television is viewed. Since no comparable measurement can be made during baseline testing, data analysis for this occasion will be soley across the three experimental groups exposed to different television fare.

During both baseline and TV exposure periods, measurements will be gathered twice a week in each classroom. Each Micronesian observer will be assigned to two classrooms, each of which will receive a different television diet. These observers will be from the culture being studied and will have familiarity with school personnel and knowledge of the language. The Micronesian observer will know which diet each class receives, and further he will know the experimental design and hypotheses. As a check on observational bias, videotape recordings will be made of five- to ten-minute samples during the observed teaching sessions. The observer will know that such recordings are to be made and their purpose, but he will not know when a particular time segment is recorded. These segments will be scored by other Micronesian observers (those assigned to other classrooms) and by the Project Director. Since they, too, will have information about the diet and design of the study, which could introduce bias into their measurements as well, the videotape samples will be sent back to the U.S. and scored additionally by observers who do not have such information.

It is our expectation that during the teaching sessions the frequency and saliency of activity will be such that the observers can monitor the entire classroom continuously, rather than on an alternating time-sampling schedule in which each child is watched for one or two minutes. The feasibility of this procedure will be determined during the pretest period; if necessary, a time-sampling procedure will be adopted. During the free-play situation it probably will not be possible for a single observer to record all of the behavior in the scoring categories. Videotape recordings of these five-minute sessions will therefore be regularly employed. We plan to utilize two wide-angle cameras mounted at opposite ends of the classroom, each recording onto a separate videotape recorder. The budget provides for videotape sufficient to record two weeks of behavior in each classroom. The measurements, by more than one observer, will be made within that two-week period, and then the tape will be erased and used again. A sample of the videotaped free-play period will be sent to the U.S. for scoring, again to check on possible bias of the field personnel.

During the first week of television viewing, measures will be gathered every day rather than twice a week. The higher density of measurement is not economically feasible for the entire exposure period, but has been provided during the first week because of the possibility of immediate effects of the television diet.

We cannot at this time specify the exact scoring items that will be employed for the classroom observations. There are no scoring systems in the literature for children between nine and eleven years of age that would exactly fulfill our needs for prosocial and aggressive behaviors. We must also take into account that classroom behavior of Micronesian children might be somewhat different than that found in the United States.

Nevertheless, relevant work exists upon which we can draw. Aletha H. Stein's system for coding prosocial and aggressive classroom behavior of children aged three to five is a starting point from which we can proceed, with her consultation, modifying for age and cultural differences. Irving Staub, of the University of Massachusetts, who is currently developing observational measures for aggressive behavior displayed by children aged seven to nine, has agreed to make his measures available to us when he has determined reliability and intercategory correlations. Jerry Patterson, Oregon Research Institute, has developed observational schedules for measuring aggressive behavior in children of the age we will be studying. Patterson has sent us his materials, and members of his research group will be available to us for help if needed. Beatrice and John Whiting have developed observational measures of aggressive behavior in children seven to nine years of age, and have employed those measures in six cultures. The Whitings are in Kenya, where we have written to seek their advice and explore whether we can utilize their measures.

Our own research team includes personnel who are expert in the measurement of social behavior in naturalistic settings. Paul Ekman has developed scoring categories for measuring social behavior of adults and children in conversations, and applied them in other cultural settings (Japan and New Guinea). Robert Liebert has worked on observations and scoring of children's fear of animals and of dental treatment in naturalistic settings. Randall Harrison has worked on scoring verbal and nonverbal behavior in doctor-patient interviews. Wallace V. Friesen has worked with Paul Ekman in cross-cultural research and with Jack Kounin in the measurement of classroom behavior in the U.S.

Our plan of action for the development of the observational categories is the following.

(1) During March, 1973, prior to review of this proposal, Paul Ekman and Robert Liebert will visit Micronesia, observe classroom behavior, and videotape short samples of classroom behavior in the particular schools chosen for later study. Only short samples will be gathered, since at the time of this trip no funding will be available. Inspection of this material, and the experience gained by Ekman and Liebert will aid in planning activities prior to the actual funding of this proposal.

(2) In September, 1973, if the proposal has been funded, Paul Ekman will make a second trip to Micronesia, and with Dan Smith, the field investigator, gather more extensive videotape records of classroom behavior. These materials will be scrutinized by Ekman, Smith, Liebert and Friesen in the fall of 1973 in the U.S. Staub's categories will be available to

us at that time, and we should know whether we have cooperation from the Whitings. Modifications of Staub's, Stein's, Patterson's, and the Whiting's observational scoring categories will be made, in consultation with all of these investigators, who will view the videotape of Micronesian classroom behavior. Smith will be trained in the use of these scoring categories, utilizing the videotape records.

(3) In the spring of 1974, during the pretest period, these scoring categories will be applied by Smith and the Micronesian observers. Ekman will be in Micronesia for up to two months and Friesen for up to one month, to work with Smith in modifying the scoring categories.

(4) In the summer of 1974, reliability and intercorrelations of categories will be established through analysis of the behavior measured in the preceeding spring.

(5) In the fall of 1975, the revised scoring categories will be applied in gathering the baseline measures.

In planning this part of the research project we have consulted with a number of investigators who have worked on observational measures, in addition to Stein, Staub, and Patterson. These are Seymour Feshbach (UCLA); Ross Parke (Fels Research Institute); Robert Sears (Stanford University); Marian Yarrow (NIMH).

A number of investigators have raised the consideration that the frequency of occurrence of certain categories of behavior can sometimes be so low as to be problematic in terms of data analysis. To meet this problem Marian Yarrow has developed some non-experimental in-classroom elicitation procedures for gathering observations. Her techniques also deal with the potential problem that one or two highly aggressive children within a classroom may artificially augment the aggressive scores on the other children. Her procedures permit the collecting and analyzing of data on each child independently of the behaviors of others. After we have gathered our initial videotape recordings of classroom behavior in Micronesia in the fall of 1973, we plan to seek her advice about devising routines similar to hers for use in this study.

b. Teachers' ratings of classroom behaviors. Both prosocial and aggressive classroom behaviors will be rated also by teachers. At the end of each day they will fill out a check-list for each student, indicating whether the student did or did not engage in any of the actions listed. Since Micronesian classrooms reportedly may contain a wide range of ages, it is possible that some youngsters in any given room will not be subjects in the experiment. Teachers will complete the check-list for these children, too. Teachers will be informed that we are studying the influence of television on children, but will be given no other information regarding design or hypotheses.

The check-list to be developed will present approximately fifteen to twenty prosocial and aggressive behaviors. In this area, too, we have previous work to draw on. Seymour Feshbach, at UCLA, and Robert Singer, at Riverside, have employed check-lists focusing on aggressive actions in institutionalized adolescents. Ross Parke and Leonard Berkowitz, of the University of Wisconsin, have developed similar measures of aggression. But again, existing work must be modified to suit the age and cultural background of our population. The videotape records of the classroom that we will obtain both in the spring of 1973 and in September, 1973 will be helpful. We will also work closely with teachers at the end of the school year, 1974,

obtaining their suggestions and checking reliability of ratings. In the autumn of 1974, participating teachers will be trained to use the completed check-list.

c. Parental interviews. Although at this time we are considering parental interviews as a third dependent measure, we are aware of problems that may preclude the collection of meaningful data. We would like to assess two aspects through interviews with parents: children's behavior at home and parental attitudes towards socialization practices such as the use of discipline. But eliciting the kind of information we would find potentially valuable is not an easy task in an unfamiliar culture. It requires a large expenditure of time, skill in interviewing, and considerable knowledge of the culture. We may not have sufficient adequate staff to carry out this work.

The help of anthropologists would be invaluable in this area. We have discussed this project with three anthropologists: Vernon Allen, East-West Center, who has worked in Micronesia; Karl Heider, University of California, who has worked with Ekman and Friesen on other cross-cultural studies; Lucille Newman, University of California. All concur that we must select our specific site before we can seriously evaluate the type of anthropological help we need and can conceivably recruit. This decision should be made in March of 1973 when Ekman, Liebert and Donchin visit Micronesia. We will then obtain help from Vernon Allen about specific anthropological work already done in that area, and specific anthropologists who might advise or help us in this project. One possibility is to have a graduate student who is working in that area of Micronesia join our research team on a part-time basis.

During our March visit we will also have a first-hand opportunity to evaluate the feasibility of parental interviews. In any event, we do plan to talk to the parents of our subjects at least once prior to the inception of the study, to gain their cooperation and to allay any fears and discomfort that they may have.

D. SIGNIFICANCE

The significance of this research is two-fold:

First, it will provide the Micronesian people with information which they may use at their own discretion in determining the type of broadcasting to be introduced in their culture. In the "Ethics" section below we describe procedures we will adopt to try to insure that the findings of this research will be understood by key members of the community that we study.

Second, this research offers the possibility to answer questions important to all societies which are very difficult to answer from studies conducted within societies which already have television. We already know that television programming has some influence on children but it is difficult to extrapolate from the data available about a number of crucial issues:

What is the magnitude of the effect off television programming on social behavior? Is any increment in either aggressive or prosocial behavior relatively small or large? Does the influence seem restricted to but a few children, or spread evenly or unevenly among many? Are the possible changes in social behavior, aggressive or prosocial, resulting from television exposure sudden or gradual, incremental in an accelerating fashion, or diminishing with repeated viewing? Are such effects lasting, are they apparent after months of viewing, do they persist once programming is removed or programming content is switched?

We believe the best answers can be obtained through the study of children not previously exposed to television, where the program diet can be controlled over a long period of time. Micronesia offers that opportunity, and it may well be one of the last such opportunities.

D'. ETHICAL CONSIDERATIONS

The proposed research raises serious and complex ethical issues. On a cultural level, the study proposes to introduce American television programming into societies which may have different values, along undetermined dimensions. On a community level, the researchers propose to introduce television stimuli and research techniques which could possibly affect school and family life. Finally, on a personal level, the research proposes to introduce television programming, in one case of a high-action-adventure nature to children who would not otherwise have an opportunity to be exposed to this by television.

1. THE DECISION TO INTRODUCE TELEVISION

The Micronesians themselves have already made the decision to introduce television. Television has already been launched on Saipan. Charters have been granted for Truk and Palau. At present, the Micronesians have no guidelines for the type of programming they will have. Judging from the Saipan experience, they will get the usual range of U.S. TV programming. The Micronesians do not know whether standard American programming will have an adverse effect on their cultures. They do not know what type of programming might help them achieve their national goals. As shown in Appendix A, our proposed project is viewed by Micronesians as helpful to them.

Through the proposed research, the Micronesians will have a unique opportunity--a chance other nations have not had--to preview the effects of the kind of television they are now anticipating. The findings of this research will be shared with Micronesian governmental officials and with members of the television industry. Thus, if the limited introduction of television in the controlled experiment does have adverse effects, the Micronesians will be in a unique (and perhaps enviable) position to prevent adverse consequences on an even larger and more serious scale.

2. COMMUNITY CONSIDERATIONS

We plan to establish a Community Advisory Board within the culture we study, composed of key members from the community. This Board will be carefully briefed about our research goals and plans, their advice will be solicited, and their endorsement sought. We will seek to utilize their help in making out detailed arrangements. We will meet with this Board throughout the conduct of the study, informing them of progress and seeking their aid where problems arise. In addition to our daily contacts with teachers, our regular contacts with other school officials, and our occasional contacts with parents, we will rely on this Board for indications of any potential community problems arising in the conduct of the research. Finally, we will carefully and fully explain our findings to the members of this Board, exploring with them the alternative interpretations and implications which can be drawn from our findings. Donchin has established a similar Board in Saipan, and will play a key role in selecting and arranging this matter.

3. INDIVIDUAL CONSIDERATIONS

The parents of each child will be asked for consent for their child's participation in the research. All of the records of each child's behavior will be treated in a confidential fashion; only results pooled over a group of children

will be shared with members of the community at the end of the study.

The material we will show in the aggressive programming will be taken from standard U.S. television fare, which is considerably less violent than much of that shown in the U.S. cinema. Children in Micronesia do see the most violent U.S. films, which are presented without the "X, PG, G" ratings employed in the U.S. to inform parents as to the presumably "safe" audience. The fact that children in Micronesia do see such films makes them more comparable to U.S. children, and somewhat obviates the question of whether we are giving children their first exposure to the aggressive-adventure type of program.

4. PERSONNEL

The Micronesians feel that one of the main benefits of this study will be the training that members of their culture will receive in observing aggressive and prosocial behavior (both research assistants and teachers). Beyond the benefits of actual employment, these people will learn some research skills which may be of use to other kinds of studies of interest to Micronesians. The Micronesians working on this project will also help to maintain our sensitivity to any unanticipated problems in community reactions to the research.

Clearly, conducting research of this type, magnitude and duration, will require a sensitive appraisal and understanding of a variety of factors in Micronesia. Our own research team includes people with specific experience in Micronesia, as well as people with experience in conducting research in other cultural settings:

Donchin has lived in Micronesia for an extended period, and is currently working on various problems related to television programming in Micronesia. She has had the experience of establishing Community Advisory Boards in Micronesia. She will be in Micronesia at least 1/3 time during this project.

Smith spent two years as a Peace Corps Volunteer in Micronesia, is married to a Micronesian, and is currently doing his doctoral dissertation research on television in Saipan. Smith will be project director full time in Micronesia on this project.

Ekman, Friesen and Harrison have all worked on research in other cultural settings, and each will participate in establishing the research project and in troubleshooting problems on the site if needed.

E. FACILITIES AVAILABLE

Video equipment compatible with the Sony 1/2 inch recording equipment requested in the budget is available at the University of California, San Francisco Laboratory. Tapes sent from the field will be duplicated onto the Visual Information Display and Retrieval System (VIDIR). This system of computer-interfaced videorecorders will allow precise location of events, and the retrieval of events, during coding of the children's classroom behavior and free-play. Such precision will be required when doing the reliability checks on the site coding and when other sample coding is being conducted.

Also available at the University of California, San Francisco Laboratory are staff trained in coding and the use of the videotape equipment whose time will be reimbursed from this project, thus saving training efforts. Finally, the U.C.S.F. Computer Center will be available for use in data analysis.

Liebert's and Poulos' work will be done through the auspices of Public Systems Research, Inc., a nonprofit group located near State University of New York, Stony Brook's campus in Setauket, New York. The investigators maintain an ongoing laboratory for studying TV's effects on the Stony Brook campus, so staff are already familiar with the use of TV equipment; office space and access to computer facilities are also available.

Appendix A

MICRONESIAN REACTIONS TO PROPOSED RESEARCH

Gwyneth Donchin

The proposed study has roused support and interest in Micronesia. This was the principal finding of an exploratory visit to the islands in November, 1972.

Interviews with a broad range of administration officials, elected legislators, community leaders, teachers and others produced a composite reaction that can be summed up this way: Micronesians are concerned about the impact of foreign and particularly American culture on their own cultures. They are worried. The study, they feel, will help to give them some guidelines for the use and importation of movies and television and some clues to the causes of the rising violence in the district centers.

The following gives, in some detail, results of interviews on Saipan, headquarters of the Trust Territory of the Pacific Islands, and in the two districts tentatively selected a possible sites for the studies.

Saipan. High Commissioner, Edward Johnston is the presidential appointee with ultimate executive authority in the Territory. Mr. Johnston supports the proposed study. He believes it will be extremely useful for future planning in Micronesia. The High Commissioner and his cabinet, with which I also met, urged that I gain full support from the District Administrators in Truk and Ponape. Under a recently implemented decentralization plan, these officials have substantial--and increasing autonomy. Mr. Johnston also advised that local leaderships be assured that the study was not in fact a device to acquire political information.

On Saipan, I also met leaders of the Congress of Micronesia. Several key figures from districts other than those chosen for the study expressed the desire that similar work be done in their home areas.

Truk. Several Trukese leaders mentioned problems of aggressive behavior. The crime rate is high by island standards, youth are discontented (the high school was on strike during my visit), drinking is a serious problem (bars were closed on some islands). Heads of institutions with pan-Micronesian student bodies, e.g., University of Guam, high schools, assert that Trukese students have the most adjustment problems.

I discussed the study in depth with District Administrator Juan Sablan. He advised me that he and the district leadership are at a loss as to how to cope with the rising violence; and that elements of the leadership then meeting, were to consider the problem. Thus, he saw the study as relating to an immediate policy issue. He requested, and I gave him, details on the mechanics of the study and estimates of the cooperation that would be required from his staff.

The authoritative speaker of the district legislature, Hermes Katsura, strongly supported the study. The speaker is concerned about the erosion of traditional culture and authority, yet sees television as a means to improve the learning process and English fluency. He requested that six observers be

trained during the study so that each area in the lagoon have a new resource person at the study's completion. This request had a political purpose, as well as a manpower training rationale. Inter-island rivalries are intense.

Chubmu Nimwes, Director of Education for Truk, says he is "excited" by the study. He has been lobbying for a federal grant to study the introduction of TV. Nimwes assured me that parents and teachers would cooperate. He asked that equipment be left with his department which is desperately short of equipment for teacher training and special programs.

Fujita Bossy, the mayor and high chief of the district center island, asked, "Would the study change its objectives mid-course without consulting me or other leaders?" I assured him that it would not and that local participation was essential to the study.

These and other leaders were attracted to the study because they view television as a two-edged sword. On the one hand, they fear that, like the movies, television could spawn violence. On the other hand, they see it as a way of getting "the kids off the street" and improving language.

I also met language specialists, other educators, businessmen and community service groups. All were enthusiastic about the study.

Ponape. This district has a reputation for social harmony. However, drinking has become a problem and violence is spiralling. Again, the movies are blamed. The Ponapeans are not as eager as the Trukese to acquire TV, but the Community College of Micronesia, which is located in the district, has been exploring the possibility. All the leaders with whom I spoke agreed that television was inevitably going to come. They welcomed the study as a way to guide its introduction.

District Administrator Leo Falcum, a Ponapean, is cool to commercial television and was concerned with the impact of the television to be shown during the study. Would a demand be created, he asked. At the same time, he agreed that television was coming in the future and that the issue was how its introduction would be handled. He concluded that the study would be helpful in this respect.

The speaker of the district legislature, Dr. Eito Harris, posed some penetrating questions: "What happens when the study ends?" "How would the findings be used without further funds?" "Would local leadership be kept informed and involved?" When the study is finished, I responded, Ponape will have a wealth of information relevant to educational, social, and economic planning. The Field Investigator and senior staff would assist in interpreting data and in developing applications. The advice and assistance of local leadership would be sought and welcomed throughout the study.

The acting director of the Community College, Richard Moore, offered the facilities of the college for the study.

Principals and teachers of the schools I visited welcomed the study. Along with businessmen and other inhabitants with whom I spoke, they saw the study as a tool to guide the regrettable but inevitable transition from the past.

Summary. It is an ethical, as well as practical, imperative that the study benefit Truk and Ponape. The leadership, which must be engaged, does not want to see the children "used." These leaders have seen too many studies undertaken without their participation--studies that proved to have little value to their communities. They are not asking to be engaged in the details of the study, but in its goals.

The Pacific Broadcasting Corporation, which operates the one television station in the Territory and is licensed for two other districts (one of them Truk), supports the study and has agreed not to introduce television in any district while the study is in progress.

Appendix B

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1/31/73

Henry -

Seems hard to believe. But please do me the favor of reading this and letting me know what you think. Our response, if any, should be a joint one.

George

UNIVERSITY INTRAMURAL CORRESPONDENCE

TO: G. GERBNER
FROM: L. GROSS
DATE: 2/1/73

I have two kinds of thoughts about the Liebert proposal. First, with regard to the implied reliance on our tapes and data, I have no idea how feasible this is, nor how expensive for us. I imagine that you will be able to assess this sort of thing. Second, with respect to the project itself, it smacks too much of the kind of simple-minded experimental psych thinking which certainly characterizes Ekman's work and, I suppose, Liebert as well. I suspect tha such a project might well be useful to the Micronesian gov't., but I think it is asinine to think that it will tell us much about the effects of TV in the US. Their disclaimer-caveat on p.39, barely scratches the problems inherent in making any generalizations from data they may gather to a society where TV is part and parcel of everyday life, and has been so for over 20 years. They are talking about the introduction of a limited amount of TV, in a school-context, to a group of children (whose parents, etc. will not be seeing any TV). The problem with the design is that it is an unusually good "experimental" design which, however, is best seen as a study of the effects of TV as a relatively pure stimulus input. TV is not a pure stimulus input at all, and studying it as such strikes me as an impoverished way to go about the whole business. It is also dangerous, in that the chance to do so "pure" a "natural experiemnn" is so rare that it will inevitably (and not un-coincidentally) become highly publicized and important, and it will be hard to make clear why it is that its results can not really be applied to any society like ours, where TV has become the central communications channel for all ages and groups. I am sorry that I am not on the review panel, because I would vote against it.

February 5, 1973

Dr. Robert M. Liebert
Associate Professor
Department of Psychology
State University of New York
Stony Brook, New York 11790

Dear Bob:

Larry Gross and I read your research plan for the experimental field study of the effects of television in Micronesia.

We have many questions and comments about your very interesting plan. Most of them have to do with treating television as a "stimulus" rather than a social instrument whose functions vary with the structure of the society and culture in which it is employed. I hesitate to go beyond this general comment either in writing or on the telephone; it would take much more time than we now have to organize our thoughts and give you any more cogent observations in the near future.

However, let me caution you concerning your implied use of our tapes. They were recorded off the air without permission, and cannot be used for broadcast or other purposes outside our building. Furthermore, the tapes are on a quarter inch tape, and of a quality just barely sufficient for analysis but not suitable for enjoyable viewing. You are of course welcome to use them here.

We can discuss other aspects and questions when you come here on April 9.

Sorry we couldn't get together in the Poconos.

With best regards.

Sincerely yours,

GG:kas

George Gerbner,
Professor of Communications
and Dean

BCC: Larry Gross