

**A RESEARCH PERSPECTIVE  
ON TELEVISION AND VIOLENCE**



# INTRODUCTION

The subject of television violence and its impact on viewers is a complex question for which there are no simple answers. After more than thirty years of scientific investigation, the issue of television violence remains open to debate. Although the body of literature on television and violence continues to expand, results have been largely inconclusive, and there are still few definitive answers.

Recently, the National Institute of Mental Health (NIMH) released a report entitled *Television and Behavior: Ten Years of Scientific Progress and Implications for the Eighties*. Among many of its findings was the conclusion that a causal relationship exists between television violence and aggressive behavior. However, a careful examination of the research which was used to support the NIMH position indicates that the evidence does not warrant such a conclusion. ABC feels, therefore, a responsibility to place the NIMH report — and other research regarding television's effects — into perspective.

*A Research Perspective On Television and Violence* was written to provide broader insight and understanding of the primary issues involving research on television and violence. The information is presented in a straightforward manner so that we can reach beyond the scientific and academic community and communicate with the general public. Included is a summary of ABC Broadcast Standards and Practices policies and procedures which are the guidelines employed by the network to ensure that when violence is

depicted in entertainment programming it is handled responsibly. An appendix containing research information, a summary of the major NIMH studies, and a list of references and sources is included for further study.

## SCIENCE VS. VALUES

The issue of television violence can be addressed on two different levels: as an objective *scientific* question and as a subjective *values* issue. In dealing with subjective values, divergent opinions and viewpoints are unavoidable because conclusions are based upon reasoning which is both rational and emotional. Despite the ability to develop strong positions on either side of an issue, there is no definitive way to prove that any one position is absolutely and unequivocally correct.

By contrast, scientific study requires rigor, objectivity, and the adherence to a predetermined set of rules and procedures. Conclusions must be based solely on empirical evidence and must be judged by analyzing the assumptions which underly the study and the methods which are employed in the research.

The NIMH conclusions are based entirely upon scientific evidence. Therefore, they must withstand the rigor of scientific analysis and review. Our careful examination of the research indicates that the conclusions which the NIMH reaches are unsubstantiated when subjected to scientific analysis.

# THE NIMH REPORT

In May of 1982, the National Institute of Mental Health released the first of a two-volume report entitled *Television and Behavior*. The first volume is essentially a summary report detailing the Advisory Panel's conclusions on a broad range of research topics relating to television and its effects. The publication of this research summary stimulated controversy and debate despite the fact that Volume II, which contains all relevant technical information and background reports, was not released until the following October.

During the five month interim between the publication of Volumes I and II, the national press reported and reviewed the findings of the NIMH panel — focusing in particular upon the conclusions which addressed the issue of television and violence. Without the benefit of any supporting research material it was impossible to evaluate the NIMH position on this subject. With the release of the technical volume, however, it is now possible to assess their conclusions.

## BACKGROUND OF THE REPORT

The 1982 NIMH report *Television and Behavior* is a follow-up to the 1972 *Surgeon General's Report on Television and Violence*, a study which was initiated after a series of Congressional hearings on the impact of television violence on behavior. This

government inquiry resulted in one of the most ambitious social science undertakings in recent history. Over \$1 million was allocated to sponsor original research directly addressing the relationship between viewing television violence and subsequent behavioral violence. The result of this elaborate investigation, documented in the Surgeon General's report, was inconclusive with no direct causal relationship established between television and violent behavior.

Ten years after the publication of the Surgeon General's report a follow-up review was initiated. This update was conducted under the auspices of the NIMH by establishing a seven-member Advisory Board; of the seven participants, four had contributed to the Surgeon General's original study. The NIMH Advisory Board commissioned researchers to review and evaluate all of the research to-date concerning television and behavior. Included in the review was some of the same research which had been sponsored by the Surgeon General in 1972. Despite the impression that the 1982 NIMH report contains new research, in fact, only one new violence study is actually reported.

The NIMH report, *Television and Behavior*, is essentially a review of existing research which has already appeared in the literature and which has been previously assessed and evaluated. Thus, the NIMH is *not* a new addition to social science literature; it is simply a reiteration of information which has already been made available.

Nevertheless, the NIMH Advisory Panel arrived at four major conclusions concerning the relationship between television violence and aggressive behavior and social attitudes.

**ABC  
RESPONDS TO THE  
NIMH  
CONCLUSIONS  
ON TV AND  
VIOLENCE**

**NIMH CONCLUSION NO. 1**

The research findings support the conclusion of a causal relationship between television violence and aggressive behavior.

**ABC RESPONSE:**

The research does not support the conclusion of a causal relationship.

**NIMH CONCLUSION NO. 2**

There is a clear consensus among most researchers that television violence leads to aggressive behavior.

**ABC RESPONSE:**

There exists a significant debate within the research community over the relationship between television violence and aggressive behavior.

**NIMH CONCLUSION NO. 3**

Despite slight variations over the past decade, the amount of violence on television has remained at consistently high levels.

**ABC RESPONSE:**

There has been a decrease in the overall amount of violence in recent years.

**NIMH CONCLUSION NO. 4**

Television has been shown to cultivate television-influenced attitudes among viewers. Heavy viewers are more likely to be more fearful and less trusting of other people than are light viewers as a result of their exposure to television.

**ABC RESPONSE:**

The research does not support the conclusion that television significantly cultivates viewer attitudes and perceptions of social reality.

Following are detailed analyses and evaluations of each of the four NIMH conclusions.

## THE NIMH REPORT

### NIMH CONCLUSION NO. 1

**The research findings support the conclusion of a causal relationship between television violence and aggressive behavior.**

#### ABC RESPONSE:

**The research does not support the conclusion of a causal relationship.**

In the technical report chapter on Television and Violence, the author cites and evaluates 14 studies which lead him to the conclusion that "overwhelming evidence" exists to establish a positive relationship between viewing television violence and subsequent violent behavior. Despite the NIMH Panel's assertion that some 2500 studies were conducted on the subject of television and behavior, only 14 are used to substantiate the claim of direct cause and effect.

Before we analyze these studies in detail, we must discuss three key aspects regarding all television violence research:

- 1. The definition and measurement of violence and aggression.**
- 2. The use of correlation to imply causation.**
- 3. The use of "convergence theory" to reach a conclusion.**

## DEFINITIONS AND MEASUREMENTS OF VIOLENCE

Central to the issue of the impact of television viewing on violent behavior is the very definition of the term violence. When we talk about the need for a definition, we must consider two separate issues: (1) the definition of violent actions or depictions within television programs, and (2) the definition and measurement of violence and/or aggressive behavior.

### Defining Violent Content

The problems involved with arriving at a definition of violence are many because violence is not always obvious and clearcut. The circumstances under which an action occurs, the acceptability of the action by a culture's norms and mores, and the use of an action as self-protection are all examples which can radically alter whether or not an action is considered violent.

Nevertheless, we can arrive at a useful practical definition: "Violence is the purposeful, anti-social infliction of pain for personal gain or gratification that is intended to harm the victim and is accomplished in spite of societal sanctions against it." (Krattenmaker and Powe). Obvious as this definition might be, there are a number of researchers who would strongly disagree. Some, for example, would insist upon calling any action in which pain is inflicted, even in self defense, violent. Others would want to expand the definition to include unintentional violence such as accidents, slapstick comedy, or even acts of nature like a hurricane or tornado.

Scientists have been arguing over definition for years and we won't resolve the disagreement here. The point, however, is that the way in which violence is defined will play a large part in determin-

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ing the amount of violence which is found in program content. So it's important to keep in mind the specific definition of violence employed in any particular study. It is also important to recognize that when different studies use different definitions of violence, we can't compare their findings.

### Defining and Measuring Violent Behavior

Controversy over the definition of violent content is only one aspect of the debate.\* Of equal importance—and equally controversial—is the way in which scientists attempt to *measure* violent or aggressive behavior. In order to address the question of television's impact on behavior, we must first be able to define, identify, and measure violent behavior: Otherwise how can we know that there has been any effect at all?

The crucial question, of course, is whether or not exposure to television violence causes its occurrence in real life. The concern which everyone has is over *real* violence: the purposeful, anti-social infliction of pain which is intended to harm a victim or destroy property. Of course, it is simply impossible to observe this kind of behavior in research subjects on a systematic basis. Consequently, researchers have substituted other measures which can be observed and analyzed. But these measures are not violent behaviors as we commonly define the term. For example, research studies have measured violence with paper and pencil tests; by asking children to rate their classmates as to who is most aggressive during play; by observing children playing in a schoolyard; and during

\*It should be noted that there is no universally acknowledged definition of the terms "violent" and "aggressive" as they are applied to behavior. Since most researchers use the terms interchangeably, we will consider them synonymous.

laboratory experiments by requesting a subject to ostensibly inflict electric shocks on others.

We might assume that the violence which the studies refer to is anti-social, harmful violence but in reality it isn't. The research doesn't address the crucial question with which we are all concerned: "Does exposure to television violence cause people to commit actual violence?" As two critics of the current violence research have stated, "The social science research to date simply has not left this question unanswered; it has left it unasked." (Krattemaker and Powe)

### USE OF CORRELATION TO IMPLY CAUSATION

The NIMH report concludes that a cause-effect relationship between television viewing and aggressive behavior has been clearly established. This assumption is based on a variety of studies which utilize "correlational" techniques.

Few research techniques create as much confusion and are subject to as much misinterpretation as correlation. A correlation is simply a statistical measure of the interrelationship or association between two different variables. The problem with a correlation is that while it can tell us the degree to which two things are related, it can not tell us which came first nor whether one caused the other. In fact, it is often the case that despite a high correlation between two things, the association is actually being caused by a third condition which affects the other two.

For example, consider the fact that there is a high correlation between sales of bathing suits and sales of ice cream. Thus, it would appear that the sale of bathing suits and the sale of ice cream are

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related since as one goes up, so does the other. However, we can never say that bathing suit sales *causes* ice cream consumption to rise, nor can we say that the increase in ice cream sales *causes* people to buy more bathing suits. It is more than likely that neither really has much to do with the other despite the fact that they are highly correlated. Rather, it is because both bathing suit sales and ice cream sales are affected by a third condition: hot weather during the summer months. It is this external third condition which actually causes both the sale of bathing suits and the sale of ice cream to rise (Agnew and Pyke).

The point is, correlation can never tell us anything about causation. Thus, when we talk about correlation between television viewing and aggressive behavior, all we are really saying is that there seems to be some relationship between the two. And when a causal relationship does exist (determined by other methods) a correlation does not necessarily indicate which of the two variables is the cause and which is the effect.

A correlation between viewing television violence and aggressive behavior could be produced by any of the following: (1) viewing violence leads to aggression, (2) aggressive tendencies lead to viewing violence, (3) both viewing violence and aggressive behavior are the products of a third condition or set of conditions such as age, sex, income, or family socio-economic level.

In those correlational field studies which do control for these third factors, the extremely small levels of association between television and behavior virtually disappear. This indicates that the "relationship" between television viewing and subsequent behavior is more likely the result of a variety of external conditions which have absolutely nothing to do with television itself. Some of these third vari-

ables include the level of aggressivity among peers, parental behavior (aggressivity, anger, etc.), parent child interaction (ways children are punished, nurtured, etc.), demographic factors, and intelligence.

Another important point to remember about correlation is the strength of the association and the amount of behavior which it can "explain." Correlations of 1.0 are "perfect" in that they indicate that there is a direct relationship between two variables. A correlation of zero indicates absolutely no relationship. Correlations which run from zero to .20 indicate very weak relationships; those which run from .20 to .60 indicate moderate relationships and those running from .60 to 1.0 indicate strong relationships.

Virtually every study cited by the NIMH report found correlations of less than .20 in associating television viewing with behavior. This weak correlation combined with the inability of correlation to determine causality indicates that the NIMH's conclusion is unwarranted.

## THE USE OF CONVERGENCE THEORY

The NIMH report acknowledges that no single study conclusively links viewing television with violent behavior. However, the Advisory Panel insists that because there is a "convergence" of scientific evidence their conclusion is justified. In social science, convergence—the analysis of many different studies which point in the same basic direction—is sometimes used when no definitive evidence can be found to clearly support a position. The problem, however, is that the use of convergence can perpetuate unintended biases, flaws, or illogical assumptions

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which may exist within even a large body of research literature. It was the application of the convergence approach which led to the widespread belief among the scientific community of the time that the world was flat, and that the sun revolved around the earth. By relying on a similar approach and by refusing to challenge basic assumptions, a variety of scientists made the same mistake despite the fact that convergence theory would suggest that they were all correct.

### REVIEW OF NIMH STUDIES

The NIMH technical chapter on violence and aggression in Volume II cites 14 studies which the author suggests proves a positive relationship between television and violence and which the NIMH report relies upon to reach its conclusion of a cause-effect relationship.

Of these 14 studies, half were conducted in foreign countries with cultures, norms, and programming much different than those found in the United States. Approximately one-third of the studies were unpublished and consequently were never subjected to scientific peer review and evaluation. Two studies were not even cited as research investigations but were reported as "personal communication" between the researcher and the NIMH author. The lack of scientific documentation in a number of cited studies makes a thorough analysis and evaluation of the work impossible. Further, a number of significant studies which the author uses to substantiate his case for causality were, in fact, either written by the author himself or by his colleagues.

Despite the assertion of a distinct cause-

effect relationship between television and aggression, only four field-experiments (which contain the only type of research methods which can support such a causal claim) were reviewed. Of the four, one found no relationship between television viewing and aggressive behavior (Milgram and Shotland); one found no long-term effects (Parke, *et. al.*); one found no differences in the level of aggressive behavior between viewers and non-viewers (Loye, *et. al.*); the one which did find an effect used delinquent Belgian adolescents who were exposed to unedited theatrical motion pictures and not television programming (Leyens, *et. al.*). Further, elements in the design of the Leyens study preclude a valid causal interpretation. (For a thorough evaluation of each of these studies the reader is referred to the appendix.)

The remaining studies are not able to adequately address the question of causality. In these field surveys, the relationship between television and aggression was quite small. Few, if any, statistical controls were employed to take into account third variables which could affect the relationship. However, when statistical controls were used, the relationship between television and aggression was reduced to insignificance. For example, in one study (Hartnagel), the results showed a small positive relationship between television and aggressive behavior. Further analysis revealed that this relationship was spurious once third variables such as sex and grades in school were taken into account. The TV and aggression relationship was reduced to zero. The technical report chapter only cites the first part of this analysis, however, and it fails to mention that the relationship between television and aggression was not established in subsequent analyses.

There are two other studies cited by the NIMH which merit a brief mention. The first was conducted by Belson and investigated the relationship

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between television and aggressive behavior among adolescent boys in London. Although the NIMH report states that Belson found a relationship between television and aggression, in fact, the relationship was not straightforward. Those boys who viewed a great deal of television and those who viewed little television tended to behave *less* aggressively than did moderate viewers. This finding — not reported by the NIMH — runs counter to the report's conclusion that there is a positive and direct relationship between the amount of television viewed and subsequent aggressive behavior.

The only new research report on television and violence in the NIMH report is a study conducted by NBC (Milavsky, *et. al.*). The study was conducted in two U.S. cities over a three year period and employed a number of highly sophisticated research techniques designed to eliminate many of the technical criticisms which have invalidated previous research efforts. The NBC findings do not support the NIMH conclusion of a causal relationship between television and aggressive behavior. Although the study appears in its own chapter in the NIMH report, it is not discussed in the chapter on violence which the Advisory Panel relied on in drawing its conclusion.

In sum, a review of the studies and their findings strongly indicates that the NIMH Advisory Panel's conclusion of a causal relationship between television and violence is ill-founded and unsupported by any of the research data which is currently available.

## NIMH CONCLUSION NO. 2

**There is a clear consensus among most researchers that television violence leads to aggressive behavior.**

### ABC RESPONSE:

**There exists a significant debate within the research community over the relationship between television and aggressive behavior.**

The NIMH panel arrives at this conclusion based upon two points: first, that a majority of academic researchers believe that a causal relationship exists between television and aggressive behavior; and second, that the sheer number of scientific studies in the literature supports the contention as opposed to the number of studies which do not.

## THE OPINION OF RESEARCHERS

In fact, there is no consensus among researchers regarding the relationship between television and aggression, and a spirited debate continues within the scientific community. In a recent study (Bybee), 486 academic researchers were asked their professional opinion of the influ-

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ence of television on aggressive behavior. Only 1% reported that television was "the cause" of aggressive behavior. Further, the majority did not feel that television was an important contributory cause of aggressive behavior. Clearly this is not a consensus.

### SCIENTIFIC STUDIES

While it is true that there are more studies published in the literature which have found some effect between television viewing and aggressive behavior, this says more about the academic research process and the criteria employed for publication in scientific journals than it does about the television violence issue. It is an acknowledged fact (Krattenmaker and Powe) that research studies which report an effect are far more likely to be accepted for publication than those studies which do not find an effect. Since editors naturally prefer to report results, publication policies can result in a distortion of the scientific evidence which actually exists. In the academic research field, where an individual's professional standing is based largely on published work, there is a real incentive for researchers to produce studies which do demonstrate an effect.

### RESEARCH REVIEWS OF NO TELEVISION EFFECT

The research literature on television and violence has been reviewed and evaluated by other

academic scientists than those who participated in the NIMH study. Although many have concluded that the research evidence does not support the conclusion that television violence causes aggressive behavior, (Lesser, Noble, Kaplan & Singer, Howitt & Cumberbatch, Slife, Armour, and Kniveton) their work was ignored by the NIMH panel.

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**NIMH CONCLUSION NO. 3**  
**Despite slight variations over the past decade, the amount of violence on television has remained at consistently high levels.**

**ABC RESPONSE:**  
**There has been a decrease in the overall amount of violence in recent years.**

The only way to address the question of how much violence is on television is to systematically analyze a representative sample of television programming by conducting a "content analysis." To accurately identify content trends, these analyses must be performed over a period of years. Only two such content analyses were included in the NIMH report. Of these two analyses only one—by Dr. George Gerbner and his colleagues at the University of Pennsylvania—is used by the NIMH to support its view that violent content has remained at a consistently high level.

Since 1967, Gerbner and his associates have produced the yearly Violence Profile—an analysis of the violent content of network television programming—research that has been supported by NIMH funding. An additional conflict is the fact that Dr. Gerbner is a member of the NIMH Advisory Panel which is responsible for the report and for its conclusions.

The other major content analysis study included in the NIMH report is conducted annually by the CBS Office of Social Research. The CBS study and the Gerbner study utilize radically different definitions of violence and consequently arrive at very different conclusions. While Gerbner maintains that violence is at a consistently high level, the CBS data indicates that the level of violence has decreased over the past decade. Since the NIMH relies so heavily upon the work of Dr. Gerbner and his colleagues, we will first analyze their content analysis and then compare it with the CBS study.

### THE GERBNER CONTENT ANALYSES

The Gerbner content analyses have generated a great deal of controversy within the research community (Newcomb, Coffin and Tuchman, Blank). Criticisms focus on three major issues:

- 1. The definition of violence which Gerbner uses.**
- 2. The Index which Gerbner constructs and uses to report the amounts of violence in programming.**
- 3. The sample which is analyzed and used to generalize to a full-year season.**

#### Definition of Violence in Programming

The way in which violence in program content is defined is crucial because more than anything else, it affects the study's findings and conclusions. Earlier we discussed the difficulty in arriving at a commonly agreed-upon definition of violence. Gerbner defines violence as: "The overt expression of physical force against self or other,

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compelling action against one's will on pain of being hurt or killed, or actually hurting or killing." What makes the Gerbner definition unique is that this definition is applied not only to serious and realistic depictions of violence, but is expanded to *include* comedy and slapstick, accidents, and acts of nature such as floods, earthquakes, and hurricanes.

By employing such a definition, the Gerbner analyses arrive at violence figures which distort the amount of realistic violence actually on television. For example, in a number of Gerbner content studies, over one-third of all the violence counted did *not* result from human action but was caused by accidents or acts of nature. Without an understanding of the violence definition, we would incorrectly attribute far more violence to programming than actually exists.

### The Violence Index

Gerbner uses a Violence Index to measure the amount of violence on network television. A number of researchers (Krattenmaker and Powe, Blank, Owen) have concluded that the Violence Index is an arbitrary and idiosyncratic measure which does not accurately reflect program content. Rather than simply count the number of violent incidents per program, Gerbner combines various numerical scores, some of which are weighted to reflect his own theories and controversial assumptions. For example, the Violence Index arbitrarily *doubles* the "rate of violent episodes per program," *doubles* the "rate of violent episodes per hour of programs," and combines together percentages with straightforward numerical sums. In response to this overwhelming criticism of the Index, Gerbner replies, "The rates are doubled in order to raise their relatively low numerical values to the importance that the concepts...deserve."

By adding together the research equivalent of "apples and oranges," the Index provides a biased and inaccurate picture of television content. As one noted researcher commented, "One is always free to add apples and oranges if one wishes, but it isn't at all clear what the result means, and some people may take it seriously" (Owen).

### Sample

Gerbner and his colleagues utilize a one-week sample of prime-time network programming to generalize about the entire yearly television season. The use of one week's worth of programming to represent the total content of a 52 week season is clearly inadequate.

### THE CBS CONTENT ANALYSIS

The CBS study uses a 13 week sample of prime time network programming to represent a full year, clearly a more adequate, representative sample than Gerbner's. CBS also employs a more reasonable definition of violence: "The use of physical force against persons or animals, or the articulated, explicit threat of physical force to compel particular behavior on the part of a person." This definition attempts to analyze only realistic violence and consequently excludes from the analysis accidents, acts of nature, and comedy or slapstick.

The CBS findings have shown a measured downward trend in the amount of violent program

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content among the three networks from 1973 through 1981, the last year for which data are available. Although the CBS study offers a much different picture of violent content than does the Gerbner study, the NIMH report dismisses their findings without comment.

### Other Content Analysis Studies

Only the Gerbner and CBS studies measure television content over a long enough period of time to permit any sort of trends to be identified and measured. The NIMH report does mention a number of one-time content analysis studies but they are of little value in addressing the primary question. For example, one study cited by the NIMH utilized the capsule program descriptions in *TV Guide* as the method of analyzing the violence which appeared in programming.

### NIMH CONCLUSION NO. 4

**Television has been shown to cultivate television-influenced attitudes among viewers. Heavy viewers are more likely to be more fearful and less trusting of other people than are light viewers as a result of their exposure to television.**

### ABC RESPONSE:

**The research does not support the conclusion that television significantly cultivates viewer attitudes and perceptions of social reality.**

The cultivation theory suggests that viewers absorb a unique and biased "social reality" from watching television. According to the theory, which has been put forth by Dr. George Gerbner, television presents a distorted reflection of the world which does not accurately represent what exists in real life. Consequently, people who watch television will perceive the world from a "television perspective" and not as it really is.

Although the NIMH Advisory Panel indicates that the case for this cultivation theory has been clearly established, the authors of the technical report chapter reach a different conclusion. They state, "The evidence concerning the causal direction of television's impact on social reality is not sufficient for strong conclusions" (Hawkins and Pingree).

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As in the case of the content issue, the NIMH relies almost exclusively on the research of Dr. Gerbner and his associates to substantiate their claim that the cultivation theory is true. Although a number of other researchers have conducted work in this area, over half of all the studies reviewed by the NIMH were either conducted by Gerbner himself or by his associates. Thus, his methods and conclusions are clearly central to the issue of cultivation.

A number of independent researchers have been strongly critical of the cultivation hypothesis and of the research that supports it. Their criticisms address three key issues:

1. **The use of correlation to imply causation.**
2. **The methods by which attitudes are measured.**
3. **The application of certain research techniques in attempting to answer the research question.**

### USE OF CORRELATION TO IMPLY CAUSATION

The cultivation hypothesis states that television viewing causes distorted social attitudes and perceptions. Although the cultivation research utilizes correlational techniques, the theory's proponents interpret the findings to suggest causality. As we have demonstrated earlier, correlation can not indicate cause and effect. Further, in every cultivation study reported by the NIMH report, the correlation between television viewing and an individual's attitudes are extremely small, when they are

found at all. In most cases, only 3% of a person's social attitudes are related to television viewing. In other words, 97% of a person's attitudes and perceptions are related to factors *other* than exposure to television.

What is especially significant is that television's miniscule relationship to social perceptions decreases even further when we consider such important external conditions as the individual's age, sex, race, and place of residence. Once these variables are taken into account, the cultivation effect of television on social attitudes and behaviors is virtually non-existent.

### MEASURING ATTITUDES

The second area of criticism regarding cultivation research concerns the way in which viewer's attitudes and perceptions are measured. Individuals are asked a series of questions: one possible answer being the "TV answer," which the researchers say reflects how the world is shown on television, and the other response, a "real world" answer, which the researchers say reflects how the world really is. For example, a respondent might be asked to estimate how likely they are to be a victim of crime. Overestimating their chances of victimization is considered the "TV answer" since the researchers believe that exposure to violence on television cultivates fear and mistrust. Critics of the cultivation theory suggest the questions which are asked are highly selective, and items which do not support the cultivation theory are simply omitted. In addition, the "TV answer" is often arbitrarily determined by the researchers (Hirsch). Further, it has been found that on occasion, of the two responses from which an

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individual must choose, *both* were incorrect. Thus, the respondent is placed in the situation of having to select an answer when the only alternatives available are both wrong (Krattenmaker and Powe).

### RESEARCH TECHNIQUES

One of the major criticisms of the cultivation theory involves the various procedures which are used to investigate the hypothesis. A number of researchers have attempted to replicate the findings of Gerbner and his colleagues and were unable to find the effects which were predicted by the cultivation theory (Hughes, Doob and MacDonald, Wober).

Other researchers have been highly critical of specific methods. For example, a number of studies used a sliding baseline in segmenting individuals into the crucial "heavy" and "light" viewing categories which, according to the theory, determines how they will perceive the world. Instead of establishing a strict definition of "heavy" and "light" viewers, these categories are frequently determined by the idiosyncracies of each sample. Further, although the categories are not consistent from study to study, findings are compared as though they were identical. For example, in one study school children who watched three hours of television were classified as "heavy" viewers; in another, children who watched three hours were classified as "light" viewers (Hirsch).

Another point of criticism is that cultivation researchers group together viewers who fall into differing categories. When these groups are analyzed separately, the findings do not support the cultivation theory. For example, cultivation researchers group

"non-viewers" who don't watch television with "light" viewers who watch less than average. When non-viewers are analyzed independently of light viewers, their fear and mistrust scores are actually *higher* than light viewers. Similarly, "extremely heavy viewers" are grouped with "heavy viewers." When extremely heavy viewers — who view eight or more hours of television daily — are analyzed independently, they are found to be *less* fearful and mistrusting than heavy viewers (Hirsch). In both of these instances, when unlike groups were analyzed separately, the findings were in direct opposition to what the cultivation theory predicts.

Overall, when the cultivation theory is examined closely, it is found to be far less compelling than the NIMH report indicates. Consequently, there is no justification for the strong conclusions which the Advisory Panel reached.

# ABC POLICIES AND PROCEDURES

Conflict is a legitimate aspect of literature and drama yet we also recognize the sensitivity and care we must exercise when considering its use. ABC Television has established policies and procedures which enable us to handle violence and other controversial themes responsibly and tastefully. We make every effort to maintain the integrity of the storyline but we do not accept the gratuitous use of violence nor do we tolerate stories that glorify violence or suggest that violence is without consequences to those who use it. The care and concern with which we approach violence is indicated by the various procedures and resources which we utilize in the evaluation of dramatic material and is outlined in the following section.

## BROADCAST STANDARDS AND PRACTICES DEPARTMENT

All entertainment series and specials are produced under the scrutiny of the Broadcast Standards and Practices Department (BS&P). Each program script is carefully reviewed by Broadcast Standards and Practices editors and every violent action within the script is carefully evaluated. Each violent action must have a thematic justification and the depiction should portray only the minimum necessary to maintain the integrity of the storyline.

Gratuitous or excessive violence is eliminated and unique and detailed depictions of violent actions which might be copied or emulated are either modified or eliminated.

In addition to reviewing all scripts, every program is screened and approved in a rough-cut and final form by the Broadcast Standards and Practices editing staff before the program is considered acceptable for broadcast on ABC.

One of the tools which the Broadcast Standards and Practices editors use in evaluating program content is the Incident Classification and Analysis Form (ICAF) system. The ICAF was developed by the BS&P Department in conjunction with social scientists from the ABC Social Research Unit. The ICAF enables every editor to systematically categorize, quantify, and weigh every violent incident within a program and provides editors with a qualitative and quantitative measure of a given program's violent content.

The ICAF system is especially useful because it not only counts incidents of violence but differentiates the severity of the violence and considers the overall context within which the violence is portrayed. The ICAF system enables the BS&P editor to identify those elements within a program which may be excessive and gratuitous and is an important aspect in the overall evaluation of program content.

The ICAF system is continuously monitored and reviewed by the ABC Social Research Unit. This procedure maintains its high levels of reliability and validity and ensures that the ICAF remains a sensitive and accurate instrument for the identification and categorization of violent program content. Used in conjunction with the editor's professional judgement, the ICAF is a highly effective

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tool for maintaining ABC's standards of acceptability and appropriateness.

**ABC SOCIAL RESEARCH UNIT**

The Social Research Unit is a part of the ABC Marketing and Research Services Department. One of its functions is to provide support services to Broadcast Standards and Practices. In addition to the administration of the ICAF System, the Social Research Unit provides BS&P with relevant research information to ensure that all policies and guidelines reflect the most current data available. Contemporary social science research is reviewed on a continuing basis and plays an important role in maintaining appropriate standards for the portrayal of violence in programming. In addition to reviewing research which appears in the scientific literature, the Social Research Unit conducts a number of proprietary studies which are designed to assess the impact of our programming on viewers and to survey audience attitudes toward depictions of sensitive program material.

Another related activity of the Social Research Unit is to conduct workshops and seminars for the Broadcast Standards editing staff. Training workshops are an important element in professional growth and are held on a regular basis. This service ensures that established policy guidelines are consistently and accurately applied to the evaluation of all ABC programming.

At a typical training workshop, representatives from the Social Research Unit, as well as outside expert consultants, discuss and evaluate editing policies and procedures. The case study

approach is frequently used and has proven to be an excellent method in increasing and refining the abilities of the Broadcast Standards editors. In addition, ICAF procedures are regularly reviewed to retain the high reliability levels of the coding and to refine and improve the overall ICAF system.

The goal of these workshops and seminars is to increase the capability of the Broadcast Standards and Practices editors by improving their editing skills and by broadening their perspective and understanding of the viewing audience.

# CONCLUSION

At the very beginning of this booklet we indicated the complexity of the television violence issue. Our review of the scientific literature demonstrates how true that statement is. Research is clearly a valuable means by which we can understand more about the medium of television and its social impact. But research is only useful after we have assessed each study's strengths and weaknesses and placed it in its proper perspective. Our analysis of the research which the NIMH has used to substantiate their conclusions regarding television and violence indicates that there are more unanswered questions than there are definitively settled issues.

At the same time we recognize our responsibility to ensure that when violence is presented in the context of a dramatic program, there exists a legitimate and thematic justification for its inclusion. Further, it is our practice to limit the portrayal of violence to that which is reasonably related to plot development and character delineation. The excessive depiction of violence is rarely necessary and gratuitous portrayals are considered inappropriate for the television medium.

We believe that ABC's policies and procedures have proven to be an excellent method of exercising our responsibility. We will continue to demonstrate care and concern in the future by providing our viewers with programming which meets the highest standards of appropriateness and social responsibility.

# APPENDIX

## EVALUATING RESEARCH

Research is a valuable tool for expanding our understanding of the television medium. But research must be carefully analyzed, evaluated, and interpreted in order to be effective. There is no such thing as a "perfect" research study. Every study has strengths and weaknesses which must be taken into account when interpreting the research and conclusions from the study's findings.

The ABC Social Research Unit continually reviews social science research as it appears in the scientific literature. Each study is subjected to a rigorous analysis so we can accurately determine how much confidence—if any—should be placed in the results.

Although scientific research is often sophisticated and complex, there are three key elements which should be considered when evaluating any study. These include:

1. The study sample.
2. The research approach which is used.
3. The size of the effects under investigation.

## SAMPLING

A sample is a specifically selected sub-group which researchers use to represent a much larger group. A sample can be made up of individuals—for example television viewers—

or it can be a group of programs—as in the analysis of violent content. Regardless of what the specific sample is, all samples must be "representative" of the larger population in order to be useful.

If a sample is not representative—that is, if there are unintended biases inherent within the small group which is studied—serious errors in findings and conclusions can result. It was an unrepresentative sample which led pollsters to erroneously conclude that Thomas Dewey would defeat Harry Truman in the 1948 Presidential election.

Creating a representative sample is one of the most difficult and crucial aspects of any research study. In order to provide accurate representation, a "probability" sample must be developed. This means that elements within the sample are randomly selected to ensure that they are as representative of the larger group as possible. In such sciences as chemistry, biology, and physics, sampling problems rarely exist to the extent that they do in such social sciences as psychology and sociology—the disciplines most involved with television research. For example, a medical researcher who wishes to examine a patient's blood need only draw a small amount to provide a representative sample of a person's overall blood composition. In addition, the blood sample can be taken from almost anywhere on the body and will still be representative of the person's overall blood make-up.

In social science research, however, the researcher must be careful to obtain a sample which represents all geographic locations, as well as a broad range of individuals, so that it accurately mirrors all of the characteristics of the total population. For example, if we are interested in the effects of television on school children, we must make certain that the sample is geographically diverse to include children from all regions of the country, that it contains the same proportionate amount of children in each age group as exists in the total population of children, and that such important factors as the sex, family income, and intelligence level of the children in the sample represent the characteristics of the child population at large.

## RESEARCH APPROACHES

Social science research designed to assess the effects of television violence employs one of the following four approaches: *laboratory experiments, field studies, experimental-field studies, and clinical case studies.*

**Laboratory Experiments**

Laboratory experiments are designed to establish causal inference. This is accomplished by carefully controlling the experimental stimulus (TV program) and viewing situation and then observing the subject's behavior under very controlled conditions. This permits a more direct inference of a causal relationship between the content of the test program and subsequent behavior. One must pay for this control, however, by using an artificial testing environment and by dealing with the many logistical difficulties in testing subjects. Consequently, lab experiments test relatively few subjects, and quite often the subjects are selected for their ready availability to the experimenter (such as college students enrolled in a basic psychology course or children or adults who are institutionalized in a school, hospital, or prison). This can lead to serious difficulties in applying the findings from the test subjects to a larger, normal population. In addition, critics of laboratory experiments charge that the programs which the subjects view are not representative of the kinds of programming which are broadcast on commercial television, making the tests unrealistic and the results highly suspect.

A serious criticism of the laboratory approach involves the way scientists attempt to measure violent behavior. Since it is obviously impossible to ask a subject to actually strike another person, some researchers have asked subjects to manipulate controls which would administer electric shocks to a person who is ostensibly in another room. The intensity, frequency, and duration of the shocks are recorded and form the basis for measuring aggressive behavior. The question, of course, is whether administering shocks—under the supervision and encouragement of a research scientist—is the same as behaving violently in the real world. Furthermore, the subjects are often told that the electric shocks are not really harmful and that the uncomfortable, but harmless, shocks will “help” the other person to learn an assigned experimental task.

Another important aspect of the laboratory approach is that in virtually every study, most of the measurable effects occurred only when subjects were initially angered

or frustrated by the experimenter and then were exposed to a violent clip from a program or movie. The necessity to combine anger and frustration with television and then to measure behavior *immediately* afterward may not accurately reflect a real world situation outside the laboratory.

Finally, in many experimental studies involving young children, researchers have used playful imitations of what the children saw on screen as a measure of aggression. In some of the classic studies, children watch an adult punch a “Bobo” doll which is designed to bounce-back after it is struck. After exposure to the television material, the child is placed in a play-room with an identical Bobo doll and his or her actions are observed. The researchers consider a child who is likely to imitate the on-screen behavior by punching the Bobo doll as behaving aggressively. However, the fact that the doll was designed specifically to be used in this manner renders this measurement technique questionable.

**Field Studies**

A field study, as its name suggests, is conducted in a subject's natural environment as opposed to the laboratory study, which usually takes place in a contrived and unnatural setting. Field studies typically use a much larger number of subjects than do most experimental studies. Since all possible variables can not be controlled as in a laboratory experiment, field studies do not permit the researcher to determine a direct cause-effect relationship except under some very special circumstances which we will discuss in the following section.

Field studies frequently employ one of three possible approaches: *the field survey, the panel survey, and a field experiment.*

**FIELD SURVEY** In a field survey, respondents are usually asked a series of questions by an interviewer or are asked to complete a written questionnaire. The questionnaires frequently measure the amount and type of programming which is watched, and measure other sorts of characteristics such as the level of aggressivity as measured with a pencil and paper test. Using statistical methods, the scientist attempts to correlate, or relate certain characteristics (such as exposure to television violence) with some behavioral variable (such as high aggressivity).

## APPENDIX

Sometimes researchers measure behavior by observing individuals in their natural surroundings. A common method of measuring aggressivity among school children is to simply observe them at play during recess. What is crucial however, is that the observers be kept "blind" or uninformed as to the nature of the study. In other words, telling observers to look specifically for violent behavior can produce unintended "findings" because the observers might, consciously or unconsciously, be biased to find aggressive behavior. While this may seem to be a research problem which can easily be accounted for, in reality, a number of researchers have shown that this unintended "demand" effect can seriously bias research findings and subsequent analysis (Rosenthal and Jacobson). Of course, a larger question is whether or not observing children at play is an appropriate substitute for the measurement of actual violence.

**PANEL SURVEY** A panel survey is very similar to a field survey except that the same respondents are surveyed at two or more points in time in order to permit the researcher to infer some aspects of cause-effect. However, cause-effect relationships under any sort of survey approach are highly questionable and subject to a great deal of misinterpretation because so many external variables remain unaccounted for.

The special "cross-lagged" analysis which is employed by two of the studies cited in the NIMH report (Eron & Huesmann, and Singer & Singer) which the NIMH suggests can be used to infer causality have, in fact, been shown to be invalid in making such causal connections (Bohrnstedt, Duncan, Cook and Campbell, Rogosa, Kessler and Greenberg). Appropriate techniques are available to make such causal inferences, however, and were employed by the NBC study (Milavsky).

**FIELD EXPERIMENT** A field experiment is an attempt to obtain the best of both research worlds: the natural environment of the field study combined with the experimental approach's ability to infer causality. Of course in any compromise there is always a trade-off. In this case, it is the ability to establish a *definitive* cause-effect relationship. No matter how rigorously the researcher attempts to control for external variables, it is simply impossible to account for every external circumstance in a natural setting, as opposed to the unnatural, but completely controlled, laboratory situation.

A serious problem which is frequently encountered in field experiments is the use of "intact groups." An intact group is simply a group of individuals (such as all children in a particular school class) who are selected as one of the experimental groups in a field experiment. A true experiment uses two (or more) equal and identical groups; one is subject to

experimental manipulation (in this case, a television program with violence) and the other to the control situation (such as a neutral television show without any violence). The researcher makes the groups equal and identical at the start of the experiment by randomly assigning the subject to one of the experimental groups. With all essential aspects of the two groups being as equal as possible, behavioral changes can be attributed to the one thing which was different: exposure to the different television programs. However, when an experimental group is comprised solely of individuals from the same intact group, then third variables are not controlled. The experimental groups are not equal and identical at the start of the experiment. Any behavioral changes that occur may be due to: (1) original differences in the group, or (2) differences in the experimental manipulation (TV programs). For example, when an intact school class is used in a violence study it is possible that the differences in children's aggressive behavior may be due to differences in the way the teacher controls discipline; some teachers are more strict than others. If a researcher uses two intact groups and assigns one group (teacher very strict — does not allow any rough play) to the "violent TV show," and the "control" group (teacher very lenient — allows a lot of rough play) to the "non-violent TV show," a misleading conclusion concerning the impact of television could result. The differences in behavior could be due to either the different program content or to the original difference of the intact groups — the degree of the teacher's discipline.

### Clinical Studies

The clinical case method is less commonly used in social science research because the sample size is often extremely small which makes generalization to the population at large difficult and unreliable. Nonetheless, clinical studies are valuable when researchers are interested in probing in-depth to discern motivation and similar underlying reasons for attitudes and behaviors. Clinical studies are also very useful when special populations such as delinquent adolescents, exceptional children, or other non-normative subjects are of interest.

## APPENDIX

### EFFECTS SIZE

When researchers talk about "effects," they are referring to the ability to explain or predict behavior or attitudes as a result of previous exposure to a particular variable, in this case, television. Therefore, when we refer to the size of the effect of a particular study, we are asking how significant a relationship exists between television and behavior or attitudes.

Despite the various conclusions and resulting implications which NIMH Advisory Panel attributes to the research studies they reviewed, the size of the effects reported are extremely small. Even if one were to accept the various methodological and technical flaws inherent in many of the studies, the amount of behavioral or attitudinal change which can be attributed directly to television is insignificant.

The way in which researchers estimate the amount of contribution which television makes on behavior or attitudes is to square—or multiply by itself—the correlation coefficient figure which is reported in the studies. For example, assume we have a study which indicates that there is a correlation of .11 between viewing television and aggressive behavior when there are no controls applied for external third variables, and a correlation of .06 when such variables as sex, race, and place of residence are taken into account. By squaring these figures (.11 x .11 = .01 and .06 x .06 = .004) we see that television accounts for 1 per cent of aggressive behavior without controls and less than 1/2 of one percent of aggressive behavior when controls are applied. In other words, over 99 per cent of the reason behind the individual's aggressive behavior must be attributed to factors other than television.

The effects size is a very important consideration when evaluating research since it is often possible to find relationships which, in fact, are virtually meaningless when the true magnitude of the relationship is assessed.

REVIEW OF RESEARCH	<p>Following are brief reviews and analyses of the fourteen studies cited in the NIMH Technical Paper on Violence and Aggression to support the relationship between television and subsequent behavior. Also included is a review of the Milavsky <i>et. al.</i> NBC Study. Although it was not included in the NIMH technical chapter on violence, it is the only new study on the subject, and was reported at length in a section of its own in the NIMH report.</p>			
STUDY	APPROACH	SUBJECTS	MEASUREMENT	EVALUATION
<p>BELSON, W. <i>Television Violence and the Adolescent Boy</i>. London: Saxon House, 1978.</p>	<p>Field Survey</p>	<p>1565 London boys in the age range 12-17 years. This was a <i>probability</i> sample.</p>	<p>Television violence exposure was measured by asking the boys about their viewing a representative sample of all programs broadcast between 1959 and 1971. Fifty judges then rated the programs for 25 different forms of violence. A boy's violence score was a sum of the products of exposure to each show and the violence rating for each show.</p> <p>Involvement in violent behavior was measured by asking the boys if they had committed any of 53 violent acts in the last 6 months.</p>	<ul style="list-style-type: none"> <li>■ Controls for third variables were performed in an unorthodox manner developed by the author. Traditional, simultaneous controls for important third variables were not performed. Instead, post hoc matching of high and low viewers was attempted on a number of third variables. Matching procedures are weak in causal analysis.</li> <li>■ Foreign sample.</li> <li>■ High viewers of televised violence were about as aggressive as low viewers of televised violence.</li> <li>■ Approximately half of the sample did not engage in any violent acts.</li> <li>■ The author acknowledges that despite his matching procedures, his research does not eliminate the possibility that the reverse causal hypothesis — aggressive boys like to watch violent programs — is true.</li> </ul>

STUDY	APPROACH	SUBJECTS	MEASUREMENT	EVALUATION
<p>ERON, L.D. &amp; HUESMANN, L.R. Adolescent Aggression and Television. <i>Annals of the New York Academy of Sciences</i>, 1980, 347, 319-331.</p>	<p>Panel Survey of 3 years</p>	<p>758 first and third grade children in a Chicago suburb. This was a <i>non-probability</i> sample.</p>	<p>Television violence was measured by asking children how frequently they viewed their eight most watched TV shows. Two psychology students then rated these shows for their amount of visually portrayed physical aggression. A child's TV violence score was the sum of the violence ratings for their eight most frequently watched shows, weighted by the frequency with which they watched the programs.</p> <p>Aggressive behavior was measured by peer-nominated ratings and self-ratings of aggression. The latter included items in which the child rated how similar they were to fictional children described as engaging in specific aggressive behavior.</p>	<ul style="list-style-type: none"> <li>■ The relationship between television violence and aggressive behavior ranged from .21 to .25.</li> <li>■ Simultaneous control of important third variables (of which a number are included in the study) was not performed.</li> <li>■ Details about which aggressive behavior measure (self-report or peer-nominated) was analysed in the correlations is not evident.</li> </ul>
<p>FRACZEK, A Personal Communication, February, 1980.</p>	<p>Panel Survey</p>	<p>237 Children</p>	<p>No information provided.</p>	<ul style="list-style-type: none"> <li>■ Foreign culture.</li> <li>■ No publicly available information.</li> <li>■ No simultaneous controls of important third variables.</li> </ul>

STUDY	APPROACH	SUBJECTS	MEASUREMENT	EVALUATION
<p>GRANZBERG, G. &amp; STEINBRING, J. Television and the Canadian Indian. Technical Report, Department of Anthropology, University of Winnipeg, 1980.</p>	<p>Panel Survey over 5 years</p>	<p>Elementary school age, Canadian-Indian boys living on reserves. Small samples in each community (about 50). These were <i>non-probability</i> samples.</p>	<p>Exposure to television was not measured. Instead communities with and without television were compared both before and after TV was introduced into one of the communities.</p> <p>These communities were compared on two variables:  (1) Fear of victimization — whether or not the subjects completed a hypothetical situation described by the researchers as one that ended in a dangerous and violent manner.  (2) Aggression — responses to questions about what the subjects would do in hypothetical situations. (What would you do if someone called you a name?) If they said they would retaliate in kind they were scored as aggressive.</p>	<ul style="list-style-type: none"> <li>■ The study has not been subjected to peer review or published in a journal. The technical report does not provide enough information to fully understand and evaluate exactly what the researchers did and what they found. Statistical tests are not sufficiently reported.</li> <li>■ The sample is not representative and comes from another country and culture. They view different programs than we do.</li> <li>■ The study design is weak because any differences observed among the communities could be due to a multitude of other factors besides television.</li> <li>■ The introduction of television did not affect the mean levels of aggressive behavior exhibited in the communities.</li> <li>■ Simultaneous controls of important third variables were not employed.</li> </ul>
<p>GREENBERG, B.S. British Children and Televised Violence. <i>Public Opinion Quarterly</i>, 1975, 38, 531-547.</p>	<p>Field Survey</p>	<p>726 children in the 9-12 and 15 year old age groups filled out questionnaires. This is a <i>non-probability</i> sample.</p>	<p>Television exposure was measured by a listing of 30 programs currently or recently aired in London. Violent program categories (programs in which acts of violence were common) included: (1) westerns; (2) action-adventure; (3) science fiction; and (4) mixed shows. Respondents checked if they watch each show <i>each week</i> or <i>almost every time it is on</i>.</p> <p>Aggressive attitudes were measured: (1) perceived effectiveness of using violence to solve problems; and (2) personal willingness to use violence to solve own problems.</p>	<ul style="list-style-type: none"> <li>■ The relationship between exposure to violence and aggressive attitudes was .15 to .17. However the relationship between exposure to non-violence and aggressive attitudes was .12 to .14 — almost identical. If television violence is supposed to cause aggressive behavior, it does not follow that non-violent programming is related to aggressive attitudes at almost the same level.</li> <li>■ Simultaneous controls for third variables were not employed in this study.</li> <li>■ The amount of violence in the programs was not reported.</li> </ul>

STUDY	APPROACH	SUBJECTS	MEASUREMENT	EVALUATION
<p>HARTNAGEL, T.F., TEEVAN, J.J. Jr., &amp; MCINTYRE, J.J. Television Violence and Violent Behavior. <i>Social Forces</i>, 1975, 54, 341-351.</p>	<p>Field Survey</p>	<p><i>Aprobability</i> sample of 2299 junior high school and senior high school Maryland students responded to a questionnaire.</p>	<p>Television exposure was measured by asking respondents if they: (1) got into a serious fight with a student at school; (2) hurt someone badly enough for him to need bandages; and (3) took part in a fight where a group of your friends were against another group. The frequency of these behaviors was recorded and summed to form an index.</p>	<ul style="list-style-type: none"> <li>■ The relationship between violent television exposure and violent behavior only was .12. When important third variables like sex, grade, race, father's occupation, educational expectations, family structure and school grades were controlled, this relationship was reduced to near zero.</li> <li>■ The authors concluded television does not cause aggressive behavior.</li> </ul>
<p>LAGERSPETZ, K. Personal Communication, August, 1979.</p>	<p>Panel Survey</p>	<p>220 Children</p>	<p>No information provided.</p>	<ul style="list-style-type: none"> <li>■ Foreign culture.</li> <li>■ No publicly available information.</li> </ul>
<p>LEYENS, J.P., PARKE, R.D., CAMINO, L., &amp; BERKOWITZ, L. Effects of movie violence on aggression in a field setting as a function of group dominance and cohesion. <i>Journal of Personality and Social Psychology</i>, 1975, 32, 346-360.</p>	<p>Experimental Field Study</p>	<p>85 delinquent, secondary school boys in a Belgian institution. This is a <i>non-probability</i> sample.</p>	<p>Television violence was not measured. Instead ten un-edited commercial movies, some in English, others not in English were shown to the boys.</p> <p>Aggressive behavior was measured by observing the boys behavior over a period of time. Instances of aggression included: physical threats; physical attack; verbal aggression; damaging objects; loud outbursts not directed at others; self-aggression.</p>	<ul style="list-style-type: none"> <li>■ No evidence was reported on long term physical aggressive effects.</li> <li>■ Any differences reported in this study may be due to the intact groups that were used as much as the kind of films they viewed. Subjects were not randomly assigned to experimental conditions. Therefore the groups were not equal at the start of the study. Differences observed <i>can not</i> be attributed to the experimental manipulations. (In this case the movies the subjects saw.)</li> </ul>

STUDY	APPROACH	SUBJECTS	MEASUREMENT	EVALUATION
<p>LOYE, D., GORNEY, R., &amp; STEELE, G. Effects of Television: An experimental field study. <i>Journal of Communications</i>, 1977, 27 (3), 206-216.</p>	<p>Experimental Field Study</p>	<p>From a pool of 725 husband-and-wife couples recruited through announcements over Theta Cable Television in Los Angeles, 260 couples were induced to participate (6 months free cable service). This is a <i>non-probability</i> sample.</p>	<p>Subjects were assigned one of <i>five types of programming</i>: (1) high in prosocial or helpful content (N=51); (2) high in violent or hurtful content (N=45); (3) neutral or light entertainment content (N=19); (4) mixed—both prosocial and violent content (N=25); and (5) natural content—view whatever they wished (N=43).</p> <p>Behavior was assessed by having wives record all instances of husbands "helpful" (husband took son for a walk on the beach) and "hurtful" (husband lost temper while driving car) behavior.</p>	<ul style="list-style-type: none"> <li>■ Thirty percent of the subjects did not complete the study. Therefore the results are based on the behavior of 183 men. These men are not representative. They were predominantly Caucasian; also more affluent and better educated than the norm.</li> <li>■ In all likelihood wives knew what programs their husbands were viewing and therefore may have been influenced by demand characteristics of study.</li> <li>■ No indication of the nature of the hurtful behavior the wives reported was presented. If losing temper while driving was the most serious form of hurtful behavior, one must question the level of violence studied here.</li> <li>■ Differences in mean levels of hurtful behavior were not observed among the five groups of television watchers.</li> <li>■ Researchers had no real control over which programs viewers actually watched. Thus their five diets of TV may have been diluted.</li> <li>■ Subjects were not randomly assigned to the different television diets. Any differences among these groups can not be attributed to the television programs they viewed because they were not equal in all other respects. Many other third variables could be responsible for any differences observed. These important third variables were not controlled.</li> </ul>

STUDY	APPROACH	SUBJECTS	MEASUREMENT	EVALUATION
<p>MCCARTHY, E. D., LANGNER, T. S., GERSTEN, J. C., EISENBERG, J. G., &amp; ORZECK, L. Violence and behavioral disorders. <i>Journal of Communication</i>, 1975, 25 (4), 71-85.</p>	<p>Panel Field Survey</p>	<p>Unknown number of mothers of children aged 6 to 18 living in Manhattan, N.Y.C. between Houston and 125th Streets. This was a <i>non-probability</i> sample. 732 children were the objects of analysis.</p>	<p>Television exposure was measured by asking the mothers what were their children's four favorite TV shows. Three researchers assigned each program a violence rating which ranged from 1 to 3. All News programming was assigned a 1.5; shows like <i>Brady Bunch</i> and <i>I Dream of Jeannie</i> received a 1; unspecified movies and many sports (like tennis and baseball) received a 2; shows like <i>NYPD, Mod Squad</i> and some sports (like wrestling and hockey) received a 3.</p> <p>A weighted violence score was calculated by taking the square root of the sum of the violence scores of the child's four favorite TV shows. This figure was then multiplied by the number of hours of TV watched daily by the child.</p> <p>Children's behavior was measured by asking mothers 654 questions about their children's behavior. These items were reduced to 40 items. These items made up 7 different scales. Of interest here are two scales: (1) fighting (teases other children; does not get along with other children at school); and (2) delinquency (does rash and dangerous things; in trouble with police).</p>	<ul style="list-style-type: none"> <li>■ The relationships between violence viewing and fighting was .05 and between violence viewing and delinquency was zero.</li> <li>■ Simultaneous controls for third variables were not employed.</li> <li>■ Children were never asked a single question. All the data were derived from the mothers.</li> <li>■ The number of mothers sampled is not reported. Biases of any single mother would likely be carried over from her perceptions of one child to any other children she may have answered questions about.</li> <li>■ The weighted violence index is a contrived and artificial measure.</li> <li>■ While the authors report this as a panel survey, no longitudinal data are presented.</li> <li>■ Reliability estimates for violence ratings of the programs are not reported. The validity of the procedures used in the violence ratings must be questioned since tennis and baseball were rated as a 2.</li> <li>■ The sample was atypical having been derived entirely from Manhattan.</li> </ul>

STUDY	APPROACH	SUBJECTS	MEASUREMENT	EVALUATION
<p>MILAVSKY, J.R., KESSLER, R., STIPP, H., &amp; RUBENS, W.S. Television and aggression: Results of a panel study. In D. Pearl, L. Bouthile, and J. Lazar (Eds.), <i>Television and Behavior: Ten years of scientific progress and implications for the 80's</i>, (Vol. 2), Washington, D.C.: U.S. Government Printing Office, 1982.</p>	<p>Panel Survey covering a 3-year period</p>	<p>3,200 elementary and secondary school children in Minneapolis and Ft. Worth, aged 7 through 9.</p>	<p>Television violence exposure was measured by asking the children how frequently they viewed a representative sample of television programs. These scores were then weighted by the amount of violence contained in each program.</p> <p>Aggressive behavior was measured by the peer nomination procedure for elementary school children. For teenagers, self-reports were used. These included a number of different measures of aggressive behavior: <i>physical aggression</i> (trying to hurt someone by pushing and shoving, hitting or punching); <i>verbal aggression</i> (trying to hurt others by saying mean things, or lying to get someone in trouble); <i>stealing and damaging property</i>; <i>delinquency aggression</i> (serious criminal behaviors like knife fights, mugging, car theft or gang fight); and <i>aggression against a teacher</i> (unruliness or rudeness toward a teacher).</p>	<ul style="list-style-type: none"> <li>■ In a very sophisticated and detailed analysis, Milavsky <i>et al.</i> were able to show that violent television exposure had no significant effect on subsequent aggressive behavior.</li> <li>■ The results of this study are very compelling because of the greater validity, consistency and relevancy of the measuring instruments employed.</li> <li>■ This study is of further importance because the authors were able to replicate the small correlation between exposure to televised violence and aggressive behavior measured at the same point in time. However, when other third variables were taken into account, this relationship was reduced to near zero.</li> <li>■ When these data were analyzed over time, no support for the causal relationship was found.</li> <li>■ No evidence was reported that the short-term laboratory type effects cumulate and generalize to day-to-day behavior.</li> <li>■ These results were true not only for the entire sample, but also for sub-groups considered to be predisposed to aggressive behavior.</li> </ul>
<p>MILGRAM, S., &amp; SHOTLAND, R.L. <i>Television and antisocial behavior: Field experiments</i>. New York: Academic Press, 1973.</p>	<p>Experimental Field Study</p>	<p>2,785 subjects participated in eight experiments conducted in NY, St. Louis, Chicago, Detroit. Some programs were shown to subjects in theaters, while other programs were broadcast and tested in major markets.</p>	<p><i>A Medical Center</i> episode with several alternative endings formed the antisocial television program.</p> <p>Modeling of the antisocial actions were observed. These included smashing a charity display and stealing the money.</p>	<ul style="list-style-type: none"> <li>■ No significant differences were observed in the studies. Television did not lead to an increase in antisocial behavior.</li> <li>■ Real television programs were studied in the natural environment in which they are viewed.</li> </ul>

STUDY	APPROACH	SUBJECTS	MEASUREMENT	EVALUATION
<p>PARKE, R.D., BERKOWITZ, L., LEYENS, J.P., WEST, S., &amp; SEBASTIAN, R.J. Some effects of violent and nonviolent movies on the behavior of juvenile delinquents. In L. Berkowitz, (Ed.) <i>Advances in experimental social psychology</i>, (Vol. 10), New York: Academic Press, 1977.</p>	<p>Experimental Field Study</p>	<p>60 juvenile offenders from Wisconsin. They ranged in age from 14 to 18 years. This was a <i>non-probability</i> sample.</p>	<p>Television violence was not measured. Instead ten unedited commercial films were shown to the boys. Half the films were violent, the other half were non-violent.</p> <p>Aggressive behavior was measured by the same procedures in Leyens <i>et al.</i></p>	<ul style="list-style-type: none"> <li>■ Although differences in aggressive behavior were observed in the study, they can not be attributed to the movie content alone. The boys found the violent films to be more exciting, more likeable, less boring and not silly compared to the neutral films. To overcome this problem, the authors conducted a replication of the study with more interesting, non-violent films. No significant differences were reported for physical or interpersonal aggression in this study. In this second study the boys reported that both types of films were equally interesting and exciting.</li> <li>■ Subjects were not randomly assigned to experimental conditions. Therefore initial differences may already have existed among the groups. Any observed differences can not be attributed to the film stimuli.</li> </ul>
<p>SINGER, J.L. &amp; SINGER, D.G. <i>Television, Imagination and Aggression: A study of pre-schoolers play</i>. Hillsdale, N.J.: Erlbaum, 1980.</p>	<p>Panel Field Study conducted during the course of 1 year</p>	<p>141 nursery school and kindergarten children in the New Haven area. This was a <i>non-probability</i> sample.</p>	<p>Television viewing logs were kept by parents.</p> <p>Aggressive behavior was measured by having observers rate on a 5 point scale the level of aggressiveness exhibited by each child. Examples of these behaviors included: seizing another's toy, knocking over blocks, tearing up a poster, or pushing another child.</p>	<ul style="list-style-type: none"> <li>■ Mean differences in levels of aggressiveness were not observed over the year's span of this study. Children who had seen more television over the course of the study did not behave any differently after 1 year had elapsed.</li> <li>■ Absolute levels of aggressive behavior were very low in this study. Girls rarely showed any aggression at all.</li> <li>■ Serious forms of aggressive behavior did not occur.</li> <li>■ While controls for SES, ethnic background and IQ were employed in this study, the small, non-representative sam-</li> </ul>

STUDY	APPROACH	SUBJECTS	MEASUREMENT	EVALUATION
<p>SINGER, J.L. &amp; SINGER, D.G.  <i>Television, imagination and aggression: A study of pre-schoolers play.</i> Hillsdale, N.J.: Erlbaum, 1980.            (continued)</p>				<p>ple of middle class, white children did not allow enough variability in these measures to adequately conduct these tests. Other important third variables were not measured in this study.</p> <ul style="list-style-type: none"> <li>■ Cross lagged correlational procedures were used. These procedures have been demonstrated to be invalid for causal analysis.</li> <li>■ Initial levels of aggressiveness were not controlled in the analysis.</li> </ul>
<p>WILLIAMS, T.M.            Differential impact of TV on children: A natural experiment in communities with and without TV. Paper presented at the meeting of the International Society for Research on Aggression, Washington, 1978.</p>	<p>Panel Field Study over 2 years</p>	<p>240 elementary school children in Canada. This was a <i>non-probability</i> sample.</p>	<p>Television exposure was not measured, instead three towns were compared: (1) no television town; (2) one network town and (3) multi-network town.</p> <p>Aggressive behavior was measured by observation of verbal and physical behavior during free play at school; peer and teacher ratings of aggression.</p>	<ul style="list-style-type: none"> <li>■ The study has not been subjected to peer review or published in a journal. This paper (5 pages in length) does not provide enough information to understand and evaluate exactly what the researchers did and what they found. Statistical tests are not reported.</li> <li>■ The sample is very small and comes from another country and culture. The programs they view are different from ours.</li> <li>■ The study design is weak because any differences observed among the towns could be due to a multitude of other factors besides television. Important third variables were not controlled.</li> <li>■ Only 44 children were studied at two points in time. Inferences from this small sample of longitudinal data can not be generalized.</li> </ul>

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