

Assessing cultivation theory and public health model for crime reporting

by Bryan H. Reber & Yuhmin Chang

A survey of a Midwestern community supported a public health model of crime reporting and found respondents saying the media pay too much attention to crime. Respondents provided modest support for cultivation theory, with no differences found for effects of newspapers and television.

Violence is popular in America. It is ubiquitous. It leads to boffo box office. It is a popular topic in political campaigns. It is a cheap and easy way to sell newspapers or bump up ratings.

This paper seeks to address the sociological effects of violence in the media, to discuss how violence is generally covered by news media on a local level, to assess the feelings of residents of a Midwestern university town regarding news coverage and analyze survey results from both cultivation effects and public health reporting perspectives.

Violence in the media

Violence in the media is a longstanding issue. In early research, George Gerbner noted violence in 66 percent of approximately 3,000 American films produced from 1950 to 1961. He also observed, in the 1950s, that more than 75

Reber and Chang are doctoral students in the School of Journalism at the University of Missouri in Columbia.

percent of television drama contained acts of violence and it predominated in 56 percent of the programs. In 1967 and 1968, he recorded that 80 percent of television programming contained violent portrayals.¹

A three-year study sponsored by the National Cable Television Association found that violence continues to be prevalent. Prime time broadcast programs containing violent content increased by 14 percent between 1994 and 1998 and similar content increased by 10 percent on cable stations during the same time frame¹. The percentage of prime time broadcast and cable programs with violence ranged from 58 percent in year one to 61 percent in years two and three. Researchers found that a minimum of six violent incidents occur in each hour of the typical violent program.²

But violent content is not limited to entertainment programming. Crime also is a dominant topic of local news broadcasts. Paul Klite, Robert Bardwell and Jason Salzman found that crime stories consumed "about a third of the total time devoted to news." They found that violent crimes are most frequently aired and that murder, though infrequent among crime types, is the most commonly covered crime on television newscasts. "On 56 stations, more than half the crime coverage relates to murder," they wrote.³

John McManus was interested to learn whether, in making news decisions, local television news would be treated as a commodity, following an economic model, or a public service, following a journalistic model. He found that television news, in large part, was simply a regurgitation of *newspaper* content. This observation provides evidence that newspapers play an influential role in the news agenda-setting process not only of their own organizations, but in that of broadcast news outlets as well. McManus found the economic model dominated the three stations he observed. There was little attention paid to innovation in news gathering.⁴

"Crime news is a staple of journalism, and reporting it has been considered a public duty of the press." Nevertheless, Walter Jaehnig and his colleagues found the newspapers emphasize "relatively infrequent violent crimes."⁵

A 1994 study by the Center for Media and Public Affairs showed that news stories regarding crimes more than tripled between 1990 and

1994. Gerbner reported that "local TV news crime reports [doubled] in the past two years [1995-96]."⁶

Phyllis Kaniss notes that today's journalists identify strongly with local power structures - city and county officers, police and fire departments, housing authorities and so forth. The news that emerges from these sources is often bad news - news of crime, indigence, health problems and so forth.⁷

One study showed that newspapers in St. Louis greatly distorted the reality of criminal activity. E.T. Jones found that "the typical murder had slightly more than 90 times as much attention as the average major crime." He noted that crime against the person - such as murder, rape, assault - received

"about 35 times as much attention as the typical crime against property (burglary, grand larceny, auto theft)."⁸

St. Louis is not isolated in its distortion of crime rates. Crime rates as covered in newspapers generally do not accurately represent true crime statistics. Murder has been dramatically over-represented in the media according to Dennis Howitt. He writes that 26 percent of crime stories in newspapers were about murder whereas murders represented only 0.2 percent of crimes committed. On the other end of the spectrum, theft represented only 3 percent of crime covered in newspapers while it accounted for 36 percent of reported crimes.⁹

Doris Graber, in a study of Chicago newspapers and local and national television news programming, found that crime and justice topics accounted for 25 percent of newspaper content, 20 percent of local television news content and 13 percent of national news content.¹⁰

In March 1998 in Los Angeles County there were 67 murders, 175 rapes and 4,042 aggravated assaults. The proportion of crimes was misrepresented as the Los Angeles *Times* reported on 24 murders, three rapes and 39 assaults.¹¹

A study of Baltimore-area residents sponsored by the Project on Media Ownership, found that 75 percent of the 500 residents surveyed said crime and safety in Baltimore City is a very serious problem. Eighty-four percent said they worry about someone close to them becoming a victim of crime. And most of the respondents said they alter their behavior to take protective precautions.¹²

In the Midwestern community where this survey was conducted, in 1997 there were 4 murders/non-negligent manslaughters, 28 forcible rapes, 91 robberies, 252 aggravated assaults, 517 burglaries, 3,941 larceny thefts, 200 motor vehicle thefts and 19 arsons.¹³

"[Crime coverage's] prevalence in the news bestows an unwarranted importance on it that deflects attention from noncrime issues. It may also unduly enhance the public's fear of crime and the socially harmful consequences of that fear," Graber wrote.¹⁴

Claudette Guzan Artwick and Margaret Gordon found in a study of eight metropolitan dailies that crime news was the most frequent type of local story. They wrote that almost two-thirds of the local crime news they reviewed lacked context. It did not provide background information on the crime, the neighborhood, or details concerning the victim or attacker. They suggest that fear among readers can be reduced if crime is put into more context. Such context allows readers, or viewers, to ascertain whether the crime is representative.¹⁵

Jane Stevens also argues for context, but from a public health perspective. She argues that the actual occurrences of crime are covered too little. She proposes treating crime reporting from the perspective of epidemiology - treating violence as the epidemic it is. She might argue, that although crime coverage is dramatically present in news content, it does not represent the type crime of which most people are potential victims. Stevens notes that most newspaper coverage is devoted to *novel* violent events. Focusing on things such

as school shootings, murder for hire and serial killers, shifts the focus from what is really happening.¹⁶

“Because they report many fewer violent incidents than occur in their communities, the violent incidents are treated, and regarded by readers, as isolated, random events instead of predictable and preventable problems,” Stevens wrote.¹⁷

Stevens is far from alone in her thinking. Since the early 1980s, the National Center for Injury Prevention and Control (NCIPC), an arm of the Centers for Disease Control, has been treating violence as a public health issue. The NCIPC is where research is done and data gathered regarding safety issues as diverse as baby walkers and smoke detectors.¹⁸

In short, public health advocates say that news media coverage gives readers and viewers the idea that violence is random and unpredictable. Cultivation theory, on the other hand, says mediated violence shows a meaner-than-real world, making heavy viewers suspicious of people generally.

Mean world syndrome principles

Cultivation, as defined by Gerbner, is concerned with the cumulative pattern communicated by television over a long period of exposure rather than any particular content or specific effect.¹⁹ Among the questions this research seeks to answer is whether such effects are visible in a smaller community and whether there are similar effects among heavy newspaper readers.

The theory predicts a difference in the social reality of heavy television viewers as opposed to light viewers. It claims that the cumulative effect of television is to create a synthetic world that heavy viewers come to see as reality.²⁰

In 1980, Gerbner and his colleagues introduced a concept they labeled the *Mean World Syndrome*. They noted that three variables can be combined to form the *Mean World Index*. Those variables include whether respondents agree that people generally look out only for themselves, that one cannot be too careful when dealing with people, and that people are inclined to take advantage of one another when given the chance.²¹

Many of cultivation theory’s claims about heavy media use and its relationship to feelings of fear are connected to the tenets of a public health model of reporting crime and violence.

In 1984, Linda Heath surmised that reporters could help alleviate fear among news consumers by being cognizant of the mix of local and non-local crime stories since non-local stories serve a moderating function, including “information concerning precipitating actions taken by the victim,” and reporting the sensational aspects of local crime with care since those aspects are most directly linked to fear.²²

Jane Stevens and Lori Dorfman of the Berkeley Media Studies Center, are more specific in their recommendations. Their goal is not necessarily to alleviate fear, though that likely would be affected. They want to "help the public identify patterns that characterize crime and, by extension, help Americans frame appropriate public policy responses."²³ Stevens and Dorfman argue that reporters should ask questions about how typical such a crime is in the given community, what the relationships were between the people involved, what kind of weapon was involved, whether alcohol or drugs were involved, and so forth. Getting beyond the standard 5Ws and H (Who, What, When, Where, Why and How) allows readers to better connect crime with social factors and thereby find ways to take preventive measures against crime situations and ameliorate feelings of fear.

Survey and research questions

Under the auspices of a nationally-recognized research center designed to provide students experience in survey techniques, undergraduate students completed 365 surveys during November 1998. Each student was given randomly-selected telephone numbers and was required to complete 15 surveys. The process was designed by the research center to assure a statistically valid representation of the community.²⁴ The goal of the survey was to determine respondent attitudes toward crime and violence coverage, particularly by local media. Respondents were asked what areas of local life receive too little and too much news coverage and about perceptions of crime and crime coverage. Fearfulness and feelings of safety were measured through a series of questions. Perceptions of media coverage of crime were assessed. Attention to crime coverage was also surveyed. Media consumption, both local print and television, were noted. Demographic information as well as some specific interest areas were recorded.

The survey allows evaluation of the cultivation theory as it plays out in a small Midwestern market as well as determination of whether there is any evidence of support for the public health model of reporting.

These research questions drove analysis of the data:

R1: Do the findings support cultivation theory?

R2: What do respondents want from their news sources?

R3: Is there evidence of support for the principles of public health reporting?

Results and discussion

Demographics

More than half of the respondents were employed (58.7 percent), 14 percent of them were retired, 11.3 percent of them were students, and 3.9 percent of them were unemployed. The majority of the respondents (77.1 percent) had at least some college education. A strong majority (89 percent) of them were white; 3.9 percent of them were black. More than half of the respondents were female (63.4 percent).

Media consumption

About one in 10 (11.3 percent) of the respondents never read local newspapers, but 38.4 percent of them read a local newspaper every day. For those people who read local newspapers, about three-quarters (73.7 percent) paid at least some attention to the crime stories. More than half of the people (60.9 percent) watched a local television newscast at least five days a week; 7.2 percent of them never watched local TV news. Seventy-one percent of those who watched television news paid some or a lot of attention to local TV news stories about crime.

Inferential analysis

This survey oversampled women (63.4 percent of females in the sample compared to 51.4 percent from the census data in 1990). To better represent the population of the community, the data were weighted to match the proportion of gender in the community.

A stepwise regression was performed between level of fear ("My fear of crime in Columbia is great enough to prevent me from doing certain things") as the dependent variable and all other questions as independent variables. Analysis was performed using **SPSS REGRESSION**.

Eight independent variables contributed significantly to prediction of fear. Altogether, 43 percent (40 percent adjusted) of the variability in level of fear was explained by the set of eight independent variables. Table 1 displays the intercept and unstandardized regression coefficients (B), the standardized regression coefficient (Beta), R, R² and adjusted R². R for regression was significantly from zero, $F(8, 134) = 12.67, p < .000$.

Four of the eight independent variables seemed to be related to individual traits and four were media-related. (See Table 2)

Table 1: Significant fear factors

	B	Beta
Constant	3.35	-----
Crime is higher than the media says it is	.298	.295
Afraid of shopping centers at night	.619	.244
All media sensationalize violent crime	-.194	-.195
Interested in stories on local crime	-.311	-.194
Fear stems from personal experience	.195	.191
Feel safe/unsafe on Business Loop	-.188	-.187
Afraid of parking lots at night	.394	.178
Everyday life stories are not enough	-.610	-.166

R=.656
 R2=.430
 Adjusted R2=.396

The most significant independent variable was “Crime is higher than the media says it is” (p<.000). This variable indicates that fear is positively related to belief that crime is higher than reported by the media. The statement split responses evenly with 45.2 percent agreeing or strongly agreeing with the statement and 45.2 percent disagreeing or strongly disagreeing (9.6 percent were neutral)

The other media-related variables gave evidence that the more fearful respondents are, the less likely they are to think all media are guilty of sensationalizing violent crime stories.

The other media-related variables gave evidence that the more fearful respondents are, the *less likely* they are to think all media are guilty of sensationalizing violent crime stories. In response to the statement, “All media sensationalize violent crime” 56.6 percent agreed or strongly agreed. The relationship to fear was significant (p<.005)

Table 2: Media-related variables vs. level of fear, in percent

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean
Crime is higher than media say it is	8.2	37.0	9.6	44.1	1.1	3.07
All media sensationalize violent crime	10.2	46.4	7.7	34.5	1.1	3.30
Interested in stories about local crime	6.6	78.7	5.3	8.0	1.4	3.80
Everyday life stories are not covered enough in local news	-----	10.7	-----	89.3	-----	-----

The statement “I am interested in stories on local crime” was negatively associated with fear ($p < .005$). The *more fearful* the respondents, the *less interested* they were in local crime stories. More than eight in 10 (85.3 percent) of the respondents agreed or strongly agreed with the statement, while 9.4 percent disagreed or strongly disagreed.

The final media-related independent variable to show a significant relationship to fear was the statement that “Everyday life stories are not covered enough in local news” ($p < .05$). The *more fearful* the respondents, the *more likely* they were to think that everyday life stories are covered enough.

The four additional answers point to a state of fear. (See Table 3) The strongest independent variable in this category related to fear was responding affirmatively to the statement “I am afraid in shopping centers at night” ($p < .005$). The *more fearful* the respondents, the *more likely* they are to be afraid

in this setting. Nearly one-third (30.2 percent) responded “yes” to this statement.

The *more fearful* the respondents the *more likely* their fear stems from personal experience. Responses to the statement “My fear of crime stems from personal experience” is significantly related to fear ($p < .005$). About three in 10 (31.9 percent) respondents agreed or strongly agreed with the personal experience statement.

The final two independent variables to be significantly associated with fear are site specific. The more fearful the respondents were, the more likely they were to feel that a specific part of town (Business Loop) is unsafe ($p < .05$) (42.2

Table 3: Individual traits vs. level of fear, in percent

	Yes	No
Afraid of shopping centers at night	30.2	69.8
Afraid of parking lots at night	51.9	48.1

percent felt the Business Loop was unsafe). Fear of parking lots at night was also positively associated with fearfulness as a state ($p < .05$). About half (51.9 percent) of respondents said they were afraid in parking lots at night.

Research questions analysis

Cultivation effects

Support for cultivation theory was modest. Among more than 25 questions related to media consumption, attention and crime and violence in the media, only two questions were significantly correlated with the dependent variable “fear.” (See Table 4) The amount of attention paid to local crime in the newspaper was significantly correlated with fear ($p < .001$). The number of days a week one watches television news was significantly correlated to fear ($p < .001$). Interestingly enough, the statement “My fear of crime stems from entertainment programs with a lot of crime in them” was not correlated to the fear variable.

Table 4: Media consumption variables, in percent

	Never	1	2	3	4	5	6	7	Mean
Days/week read a local newspaper	11.3*	11.6	13.3	9.7	6.6	5.5	3.6	38.4	4.10
Days/week watch a local TV	7.2	6.9	6.9	8.6	9.4	12.7	8.3	39.9	4.70
	None	A little	Some	A lot					Mean
Attention to crime stories in local paper	8.3	17.4	47.4	26.3					2.89
Attention to crime stories in local TV news	6.7	22.3	43.5	27.6					2.89

* Valid Percent

Four in 10 respondents (42.3 percent) felt their fear of crime stems from national media coverage of crime, 31.9 percent of them said their fear was from their own experiences, 22.4 percent of them agreed that entertainment programs made them more fearful of crime, and only 19.5 percent of them agreed that local coverage of crime was responsible for their fear.

Perhaps this modest support for cultivation effects is related to the small town nature of the sample. While one might assume that fear would be less significantly correlated to media use in a non-urban college town, *there is evidence that heavier consumers of media are more fearful*. This modest support may also be related to the difference between news and entertainment effects, though others have found that news coverage can contribute to increased fear.²³

In summary, while fear was significantly correlated to media use in two categories, it did not show significance in the other 23 media use categories indicating only moderate support for cultivation effects.

What they want from news sources

In the survey, respondents were asked what area of local life was not covered enough in local news. The types of stories people wanted more from their local news included: schools and education coverage (12.3 percent), national news (11.5 percent), everyday life stories about people (10.7 percent), health news (6.8 percent), business news (4.7 percent), investigative news (4.1 percent), sports news (3.6 percent), crime stories (3 percent), and city news (2.7 percent). Seventy-five percent of respondents thought the media paid too much attention to criminal activity.

These categories are rather counter-intuitive among journalists. The setting, a Midwestern college town, should indicate that school and education coverage is very well covered. Since this study did not include a content analysis, anecdotal evidence is necessary. Pamela Shoemaker and Stephen Reese conclude that the "characteristics of the community within which a medium operates influence its content."¹⁶ They go on to note that the larger the market the better the spontaneous and local news coverage.

Given the fact that the market from which this sample is drawn is small, perhaps local coverage suffers and thereby supports the observations by respondents that coverage of education and "everyday life stories" needs to be increased. This does not explain the perceived lack of national news coverage. Again anecdotally, it may be presumed that because the sample has a high level of education (77.1 percent of respondents had at least some college education) respondents may show a stronger-than-average interest in national news and education news. It may also simply mean that the two newspapers and three television stations serving this community don't provide the right mix of national and local news for the respondents.

Public health

The most important findings in this study are related to the support of a public health model of reporting. There seems to be strong descriptive evidence that respondents would appreciate a public affairs model of reporting in instances of crime and violence. (See Table 5) More than half of the people (54.8 percent) wanted to know more about victim's family as a result of a crime, and 37.2 percent of the people would like to have more information about perpetrator's family. Perhaps the strongest evidence in favor of the public health reporting model is that 84.1 percent agreed or strongly agreed with the statement that they would like to know how typical is the type of violence being covered. This directly addresses the epidemiological nature of the public health

reporting model. The respondents want to know, in essence, what their chances are of being a victim in such a crime and if there are ways to know more about the types of people who are victims and perpetrators.

The findings support evidence such as that provided by Heath that knowing the circumstances can either increase or allay fear, depending on whether the event was local, regional or national in nature. These questions also directly bolster Stevens' and Dorfman's call for more detail in crime reporting.

Table 5: Variables related to public health model of reporting, in percent

I'd like to...	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean
Know more about the victim's family	4.9*	49.9	9.0	32.1	4.1	3.20
Know more about the perpetrator's family	3.8	33.4	7.4	48.2	7.1	2.80
Know how typical this type of violence is in my community	14.0	70.1	5.8	9.6	.5	3.89

* Valid percent

Finally, they advance Mark Rosenberg's call for treating crime as an epidemic, including the reporting thereof. Rosenberg's four tenets of the public health approach to gun violence can be seen in respondents desire for more specific information in crime reports. Rosenberg says that the public needs to know the problem, what causes it, what works in defusing it and how to intervene.²⁷

Summary

While modest support for cultivation effects was found, one might have expected more. This modest support may be attributed to the community or the fact that news rather than entertainment programming was the primary concern.

Respondents wanted more school and education, national, and “every-day” news. And they agreed heartily that the media pays too much attention to crime news.

Perhaps most importantly for practicing journalists, there was substantial evidence for support of a public health model of reporting crime and violence news. Respondents wanted to know more about how typical crimes are and more about the victims. This supports a need to focus on the larger crime picture, particularly when reporting sensational crime stories.

Future research in the area of crime and violence coverage should dig deeper into questions regarding the public health model of reporting. This survey gives evidence that news consumers would appreciate such coverage. Additional surveys could determine whether this is unique to the particular sample and community or whether there is broader support among readers and viewers for such an epidemiological approach to crime and violence reporting. Secondly, the feasibility of such coverage should be measured via studies of newsroom attitudes to the model.

Notes

1. George Gerbner, *Cultural Indicators: the Case of Violence in Television Drama*. **Annals of the American Academy of Political and Social Science**, 388, 1970, p. 74.
2. *New study reveals glamorized violence continues to pervade American television*. Press release, April 16, 1998.
3. *Executive summary of third year report on National Television Violence Study*. Available at: www.ccsp.ucsb.edu/execsum.pdf, p. 27.
4. Paul Klite, Robert A. Bardwell and Jason Salzman, *Local TV News: Getting Away with Murder*. **The Harvard International Journal of Press/Politics**, No. 3, 1997, p. 104.
5. John McManus, *How Local Television Learns What is News*. **Journalism Quarterly**, Winter 1991, pp. 673, 682.
6. Walter B. Jaehnig, David H. Weaver and Frederick Fico, *Reporting Crime and Fearing Crime in Three Communities*. **Journal of Communication**, Winter 1981, pp. 88-96.
7. Nathan Seppa, *News shows exaggerate prevalence of violence*. **APA Monitor**, No. 4, 1996, p. 9.
8. Phyllis Kaniss, **Making Local News**. Chicago: The University of Chicago Press, 1991, p. 78.
9. E.T. Jones, *The Press as Metropolitan Monitor*. **Public Opinion Quarterly**, Summer 1976, p. 243.

10. Dennis Howitt, **Crime, the Media and the Law**. West Sussex, England: John Wiley & Sons Ltd., 1998, pp. 30-31.
11. Doris A. Graber, **Crime News and the Public**. New York: Praeger, 1980, pp. 24, 26.
12. Jane E. Stevens, **Suggestions to change how newspapers report violence**. Unpublished manuscript, Berkeley Media Studies Group, 1998, p. 1.
13. Public Agenda. *Crime, Fears and Videotape: A Public Opinion Study of Baltimore-area Residents*, 1998. Unpublished manuscript, New York. Public Agenda, p. 6.
14. *1997 Local Crime Statistics*, Available at: www.apbonline.com
15. Graber, 1980, *op.cit.*, p. 28.
16. Claudette Guzan Artwick and Margaret T. Gordon, *Portrayal of U.S. Cities by Daily Newspapers*. **Newspaper Research Journal**, Winter 1998, p. 61.
17. Stevens, 1998, *op.cit.*
18. *Ibid.*, p. 1.
19. Bob Thompson, *The Science of Violence: Guns, Politics and Public Health*. The **Washington Post Magazine**, March 29, 1998, p. 15
20. Michael Morgan and James Shanahan, *Two Decades of Cultivation Research: An Appraisal and Meta-analysis*. **Communication Yearbook 20**, 1997, p. 2.
21. George Gerbner, *Cultivation Analysis: An Overview*. **Mass Communication and Society**, Nos. 3 & 4, 1992, p. 18.
22. George Gerbner, Larry Gross, Michael Morgan and Nancy Signorielli, The "Mainstreaming" of America: Violence Profile, No. 11. **Journal of Communication**, Summer 1980, p. 17.
23. Linda Heath, *Impact of Newspaper Crime Reports on Fear of Crime: Multimethodological Investigation*. **Journal of Personality and Social Psychology**, February 1984, p. 275.
24. Barbara Bliss Osborn, *New Questions About Crime Coverage: Reporting Violence as a Public Health Issue*. **Extra!**, January/February 1998, p. 11.
25. The procedure was developed and monitored by the Center for Advanced Social Research at the University of Missouri-Columbia.
26. Heath, *op.cit.*
27. Pamela J. Shoemaker and Stephen D. Reese, **Mediating the Message: Theories of Influences on Mass Media Content**. White Plains, New York: Longman Publishing Group, 1991, p. 225.
28. Heath, *op.cit.*, Osborn, *op.cit.*, and Thompson, *op.cit.*, pp. 15, 23.