

## Examining Effects of Television News Violence on College Students through Cultivation Theory

Meridith Diane Lett  
West Virginia Wesleyan College

Andrea Lynn DiPietro  
West Virginia Wesleyan College

Danette Ifert Johnson  
West Virginia Wesleyan College

*This investigation explored relationships between viewing television news coverage of the September 11, 2001 attacks and perceptions of violence initiated by people outside the United States, negative personal emotions, and personal relationships. Results suggest that amount of television news viewing in the wake of the attacks is related to negative personal emotions, positive views of Islamic individuals in general, and negativity of personal relationships with Islamic peers. These results extend work of Rössler and Brosius (2001) and others arguing that cultivation effects may be genre and/or content specific.*

Researchers have long been interested in the effects of television on viewers. According to Tyler and Cook (1984), "The mass media generally have an impact on societal level judgments, that is, influence citizens' views about the world." (p. 694). Compared to other mass media, television exerts particular influence as a dominant social force (Morgan & Shanahan, 1997; Shrum, 1996; Signorielli & Morgan, 2001). A variety of studies conclude that viewing television programming influences perceptions on

**Meridith Diane Lett** (B.A., West Virginia Wesleyan College, 2001) and **Andrea Lynn Di Pietro** (B.A., West Virginia Wesleyan College, 2002) are public relations graduates and **Danette Ifert Johnson** (Ph.D., Northwestern University, 1994) is associate professor of communication at West Virginia Wesleyan College, Buckhannon, WV. An earlier version of this manuscript was presented at the Eastern Communication Association's 2002 Annual Meeting by the first two authors. Send correspondence to: Danette Ifert Johnson, West Virginia Wesleyan College, 59 College Avenue, Buckhannon, WV 26201, johnson\_d@wvwc.edu

issues as diverse as minority groups (Dixon & Linz, 2000), physicians (Chory-Assad & Tamborini, 2001), social relationships (Rössler & Brosius, 2001), and violence (Gerbner, 1996a; Diefenbach & West, 2001).

### *Cultivation Theory*

Cultivation Theory, developed by George Gerbner, speculates that the more time people spend watching television, the more likely their conceptions of reality will reflect what they see on television. According to Morgan and Shanahan (1990), "Cultivation research examines the extent to which cumulative exposure to television contributes to viewers' conceptions of social reality, in ways that reflect the most stable, repetitive, and pervasive patterns of images and ideologies that television presents" (p. 1).

Past research supports that heavy television viewing is related to altered perceptions of reality (Diefenbach & West, 2001; Tyler & Cook, 1984; Weaver & Wakshlag, 1986). Gerbner (1996a) found that heavy television viewers were more likely than comparable light viewers to overestimate crime rates and risk of personal exposure to crime and underestimate the safety of their neighborhoods.

### *Effects of Violence Related to the September 11<sup>th</sup> Attacks*

In light of the events of September 11<sup>th</sup>, the issue of television portrayals of violence and effects of such portrayals on viewers' perceptions becomes especially salient. The news broadcasts of crashing airliners and victims running for their lives as the World Trade Center crumbled down have left many Americans fearful of violence yet to come. These horrific images can have a detrimental effect by influencing peoples' perceptions of the United States' relationship with the international community. Effects such as animosity towards foreigners, fear of flying, or general fear of day-to-day survival, which have occurred at previous points in U.S. history (e.g., World War II, Cold War), may develop in viewers' minds. Given the potential for serious effects, it is important to determine if there is a relationship between television news viewing in the wake of the September 11<sup>th</sup> attacks and perceptions of violence and social relationships.

### *Importance of the Study*

One reason this study is important is that past scholarship has not examined the effects of television news violence concerning a discrete event such as the terrorist attacks of September 11<sup>th</sup> but has focused instead on more global perceptions of violence. Recent work on Cultivation Theory has suggested that viewing particular program types influences specific social views of reality (Cohen & Wiemann, 2000; Rössler & Brosius, 2001; Woo & Dominick, 2001), so examining violence in terms of a specific event rather than general television portrayals is merited.

Secondly, much past research has focused on violence as presented in fictional programming. Chory-Assad and Tamborini (2001) found differences between portrayals of physicians in fictional and non-fictional program types. Gerbner (1996b) notes that 20-25% of all news stories feature violence. Thus, it is important to determine the effects that non-fictional violence, particularly related to a discrete event, can have on viewers.

College students in particular should be examined, especially when investigating

an event such as the September 11<sup>th</sup> attack, because living away from home while enrolled in college deprives students of emotional and psychological support from their families that may assist in responding to a traumatic event. Students may also be in surroundings that are more or less ethnically diverse than their hometowns. Given the association of the terrorist attacks with non-U.S. citizens, television news may be a factor influencing students' beliefs about others. Television has, historically, portrayed individuals from minority cultures unrealistically, even within the United States (Dixon & Linz, 2000; Entman, 1994).

Another reason that traditional age college students are the focus of this study is because media can provide socialization information about adult roles during the college years (Henke, 1985). Television news can be a significant influence in each individual's personal growth or transition into adulthood or the so-called "real world."

In order to examine the influence of television viewing on beliefs about violence and society in the wake of September 11<sup>th</sup>, it is important to examine what cultivation researchers refer to as first and second order cultivation effects.

#### *First Order Effects*

First order cultivation effects concern general views about the state of the world and public opinion; these effects were first identified by Hawkins and Pingree (1982). Potter (1991) provides evidence that first and second order effects are distinct effects and that measures of the two are not interchangeable. First order effects, according to Rössler and Brosius (2001), are of two types: estimates of real world occurrences of events and estimates of popular opinion distribution. Media events can evoke change in general cognitions about the world (Tyler & Cook, 1984) and viewers' beliefs about the real world (Potter & Chang, 1990). Gerbner (1996b) observes that the frequency of violence in media rarely mirrors actual crime statistics. The influence of television viewing on perceptions of the world is disturbing given that past research has found that media distort reality about issues such as crime and minorities (Dixon & Linz, 2000; Entman, 1994).

Given the potential for distortion in viewers' perceptions about the world (Potter & Chang, 1990; Tyler & Cook, 1984), first order effects of viewing excessive television news violence following the September 11<sup>th</sup> attacks might include overestimating the amount of violence initiated by people from outside the United States.

- H1:** Amount of television news viewing after September 11<sup>th</sup> will be related to viewers' perceptions that people from outside the United States create greater amounts of violence.
- H2:** Amount of television news viewing after September 11<sup>th</sup> will be related to viewers' perceptions that most Americans perceive that people from outside the United States initiate greater amounts of violence.

#### *Second Order Effects*

Second order effects focus on the effects of television content on viewers' beliefs and general attitudes (Rössler & Brosius, 2001). According to Rössler and Brosius (2001), U.S. scholars express concern that programs make abnormal events normal, cause viewers to trivialize complex social issues, and fail to offer solutions in most cases. Gerbner

and others suggest that heavy television viewers are more likely to perceive themselves as potential victims of violence (Doob & Macdonald, 1979; Gerbner, 1996b).

Research shows that television plays a role in reinforcing beliefs young adults have about society and people who inhabit the world. Violence portrayed as emanating from people of different ethnic or racial backgrounds may result in negative beliefs about diversity, as broadcast media exert significant influence on viewers' beliefs about racial characteristics and behaviors (Armstrong, 1992).

Second order effects would include perceptions of the world as more violent and changes in personal beliefs that alter personal interaction. Thus, we pose the following questions about how college students may be affected by the September 11<sup>th</sup> terrorist attacks.

- RQ1:** Does amount of television news viewing in the wake of the September 11<sup>th</sup> attacks influence negative personal emotions after the terrorist attacks?
- RQ2:** Does amount of television news viewing in the wake of the September 11<sup>th</sup> attacks influence perceptions of Islamic individuals in general?
- RQ3:** Does amount of television news viewing in the wake of the September 11<sup>th</sup> attacks influence negativity toward developing personal friendships with peers who are Islamic?

## METHOD

### *Participants and Procedures*

Randomly selected students from general education courses at a small, mid-Atlantic liberal arts college completed questionnaires six weeks after the September 11<sup>th</sup> attacks. This timing was selected to allow for the news coverage of the events to have an effect but to also be recent enough after the events so that participants could more accurately respond to questions about news viewing and attitudes. Of the 234 respondents, 149 were female and 85 were male with an average age of 19 ( $SD = 2.00$ ). The college's Institutional Review Board approved questionnaires and instructors gave consent to distribute questionnaires during class time. Participants were informed of the purpose of the study and that their participation was voluntary. Questionnaires took approximately 15 minutes to complete and all responses were anonymous.

### *Measures*

*Pre-September 11<sup>th</sup> viewing.* Television news viewing before September 11<sup>th</sup> was evaluated using one question where respondents estimated their daily viewing. This variable was used to account for the possibility that differences in general news viewing, rather than differences in news viewing about the September 11<sup>th</sup> events, are responsible for results.

*Television news viewing.* Television news viewing was measured by four questions assessing how many hours of television news respondents had viewed on September 11<sup>th</sup> and in the weeks following. Reliability for the four-item measure was .78 using Cronbach's  $\alpha$  and mean news viewing was 3.2 hours per day ( $SD = 0.8$ ).

*First order effects.* First order effects were measured by having participants estimate the percentage of violence initiated by individuals from outside the United States and

most Americans' perceptions of the percentage of violence initiated by individuals from outside the United States on a 1 (*low*) to 100 (*high*) percent scale. The mean estimate of the percentage of violence created by people from outside the United States was 45.5% ( $SD = 24.4$ ) while the mean estimate of most Americans' perception of the percentage of violence created by people from outside the United States was 61.9% ( $SD = 23.4$ ).

*Negative personal emotions.* Negative personal emotions were measured by three questions evaluating the respondent's anger, sadness, and fear of flying in the wake of the September 11 attack. Participants responded to questions on 1 (*very little*) to 5 (*very much*) Likert-type scales. Cronbach's  $\alpha$  for the three-item index was .81 and respondents averaged a score of 3.83 ( $SD = .81$ ).

*Negative perceptions of Islamic individuals.* Perceptions of Islamic individuals was measured by a three-item index that asked individuals to rate the extent to which their views about people of Muslim heritage changed for the worse after September 11<sup>th</sup>. Respondents answered questions on 1 (*much less so*) to 5 (*much more so*) scales and the mean response was 3.49 ( $SD = 1.20$ ). Reliability for the index was strong ( $\alpha = .89$ ).

*Negativity toward Islamic peers.* Respondents' negativity towards friendships with Islamic peers was measured by three questions assessing how angry, scared, and negative respondents would be toward a Muslim peer after the terrorist attacks. On a scale of 1 (*low*) to 5 (*high*), respondents rated how they felt towards friendship with an Islamic student. Responses were summed to create a negativity index. Cronbach's  $\alpha$  for the index was .86 and participants' mean level of negativity was 1.68 ( $SD = .93$ ).

## RESULTS

Hypotheses and research questions were tested using regression analysis. The pre-September 11<sup>th</sup> news viewing variable was entered on the first step of a hierarchical regression equation. The television news viewing index described above was entered into the second step of the equation. This procedure enabled evaluation of the unique effects of viewing television news in the weeks following the September 11<sup>th</sup> attacks as separated from general television news viewing habits (Nunnally & Bernstein, 1994). Differences in sample size are due to missing data on some questionnaires.

### *First Order Effects*

Hypothesis 1 predicted a relationship between amount of post-September 11<sup>th</sup> television news viewing and perceptions of the amount of violence created by individuals from outside the United States. This hypothesis was not supported, as there was no significant relationship between these variables ( $\beta = .058$ ,  $t(215) = .80$ ,  $p > .05$ ,  $R^2 < .01$ ).

Hypothesis 2 predicted a relationship between amount of post-September 11<sup>th</sup> television news viewing and estimates of most Americans' perceptions of the amount of violence created by individuals from outside the United States. This hypothesis was unsupported, as there was no significant relationship between the variables ( $\beta = .09$ ,  $t(215) = 1.30$ ,  $p > .05$ ,  $R^2 < .01$ ).

### *Second Order Effects*

Research Question 1 asked if amount of post-September 11<sup>th</sup> television news viewing is related to personal negative emotions. Results provide support for a relationship between greater television news viewing and more negative personal emotion ( $\beta =$

.341,  $t(229) = 5.16, p < .01, R^2 = .10$ ).

Research Question 2 asked whether greater amounts of post-September 11<sup>th</sup> television news viewing would be related to negative perceptions of Islamic individuals in general. Results show that heavier viewers had less negative perceptions of Islamic individuals in general ( $\beta = -.115, t(230) = -1.64, p = .05, R^2 = .01$ ).

Research Question 3 investigated whether amount of post-September 11 television news viewing is related to negativity toward Islamic peers. Results support that greater television news viewing was associated with more negativity toward Islamic peers ( $\beta = .210, t(229) = 3.07, p < .01, R^2 = .05$ ).

## DISCUSSION

The goal of this study was to determine if there was a relationship between amount of television news viewing and college students' perceptions of reality in light of the terrorist attacks on September 11, 2001. The results show no relationship between the amount of viewing and a) perceptions of amount of violence created by individuals from outside the United States and b) estimates of most Americans' perceptions of violence created by persons from outside the United States (*H1* and *H2*).

Support was found for second-order effects. Personal negative emotions were positively associated with television news viewing (*RQ1*), as were negative perceptions of Islamic peers (*RQ3*). The more hours individuals watched television news coverage following the terrorist attacks, the more negative emotions they reported and the more negativity they expressed toward Islamic peers. Support was also found for second order effects in evaluating *RQ2*. Those who watched greater amounts of television news after September 11<sup>th</sup> perceived Islamic individuals as less negative than did viewers of less television news. This finding is interesting given the findings for *RQ3*. While higher viewers were more positive toward Islamic individuals in general, they were more negative toward their peers. One potential explanation for the positivity toward Islamic individuals in general may be television portrayals that overtly attempted to portray the terrorists as extremists and separate them from mainstream Islam.

The results of this study are consistent with the work of Rössler and Brosius (2001), who found that cultivation effects are due to repeated viewing of specific content or genre-based programs. Similar conclusions were reached by Chory-Assad and Tamborini (2001), who found that perceptions of television physicians varied by genre. Given that Rössler and Brosius (2001) examined daytime talk programs, our study extends their work to another, non-fictional genre. It is also unique in that it focuses on responses to a discrete event instead of generalized coverage of an issue (e.g. international relations).

No first order effects were found by this investigation. Given Potter's (1991) findings that first and second order effects are distinct phenomena, finding evidence for second order but not first order effects is not completely unexpected. One possible explanation is that factors besides television viewing may influence first order effects to a greater degree than second order effects. Tyler and Cook (1984) observe that under some conditions, media influence personal and societal level judgments differently. Since first order effects focus more on views toward society in general and second order effects focus more on the personal impact of media content, it is possible that societal level judgments are influenced by factors not examined here.

### Limitations

One limitation of this investigation involves omission of a question about respondents' place of origin. This question could have provided insight into perceptions of the respondents. Individuals who have lived in New York City or Washington, D.C. or who have family or friends there could have had greater changes in perceptions following the events of September 11<sup>th</sup>. Although the vast majority of respondents were born in the United States, country of origin may also influence perceptions of Islamic individuals or negative emotions following the attacks.

A second limitation involves measurement of the first order effects. Since single-item measures were used, reliability estimates cannot be established for these measures. Although the questions asked have high levels of face validity, additional measures of first order effects might influence the results.

### Directions for Future Research

The use of a longitudinal study may be another way to improve future research on Cultivation Theory and media violence. The questionnaire used here could be given again to the same group after the war on terrorism is over and results could be compared to see if there are more or less negative feelings towards people of Islamic faith. Such differences could evaluate whether longer exposure to media violence has an effect on an individual's perceptions of reality.

Further research could also examine the relationship between amount of violence in particular television programs and cultivation effects. This is consistent with Rössler and Brosius's (2001) conclusion that cultivation effects may be genre-specific. Researchers could study a particular genre's level of violence and compare cultivation effects between genres or programs with lower levels of violence.

In today's society, individuals are shaped by television. If research can be gathered to show the lasting effects of media violence on individuals' perceptions, then further steps can be taken to better understand both positive and negative effects.

### REFERENCES

- Armstrong, B. (1992). TV entertainment, news and racial perceptions of college students. *Journal of Communication, 42*, 153-176.
- Chory-Assad, R. M., & Tamborini, R. (2001). Television doctors: An analysis of physicians in fictional and non-fictional television programs. *Journal of Broadcasting and Electronic Media, 45*, 499-521.
- Cohen, J., & Wiemann, G. (2000). Cultivation revisited: Some genres have some effects on some viewers. *Communication Reports, 13*, 99-114.
- Diefenbach, D. L., & West, M. D. (2001). Violent crime and Poisson regression: A measure and a method for cultivation analysis. *Journal of Broadcasting and Electronic Media, 45*, 432-445.
- Dixon, T.L., & Linz, D. (2000). Overrepresentation and underrepresentation of African Americans and Latinos as lawbreakers on television news. *Journal of Communication, 50*, 131-154.
- Doob, A., & Macdonald, G. (1979). Television viewing and fear of victimization: Is the relationship causal? *Journal of Personality and Social Psychology, 37*, 170-179.
- Entman, R. M. (1994). African-Americans according to TV news. *Media Studies Journal, 8*, 29-39.
- Gerbner, G. (1996a). TV violence and what to do about it. *Nieman Reports, 50*, 10-13.

- Gerbner, G. (1996b). The hidden side of television violence. In G. Gerbner, H. Mowlana, & H. I. Schiller (Eds.), *Invisible crises: What conglomerate control of media means for America and the world* (pp. 27-34). Boulder, CO: Westview Press.
- Hawkins, R. P., & Pingree, S. (1982). Television's influence on social reality. In D. Pearl, L. Bouthilet, & J. Lazar (Eds.), *Television and behavior: Ten years of scientific progress and implications for the eighties* (Vol. 2, pp. 224-247). Rockville, MD: U.S. Department of Health and Human Services.
- Henke, L. L. (1985). Perceptions and use of news media of college students. *Journal of Broadcasting and Electronic Media*, 29, 431-436.
- Morgan, M., & Shanahan, J. (1990). Adolescents, families and television in five countries. *Journal of Personality and Social Psychology*, 43, 1-24.
- Morgan, M., & Shanahan, J. (1997). Cultivation research: An appraisal and meta-analysis. In B. R. Burleson (Ed.), *Communication Yearbook 20* (pp. 1-45). Thousand Oaks, CA: Sage.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory*, 3<sup>rd</sup> ed. New York: McGraw-Hill.
- Potter, J. W. (1991). The relationship between first and second order measures of cultivation. *Human Communication Research*, 18, 92-113.
- Potter, J.W., & Chang, I. (1990). Television exposure measures and the cultivation hypothesis. *Journal of Broadcasting and Electronic Media*, 34, 313-333.
- Rössler, P., & Brosius, H-B. (2001). Do talk shows cultivate adolescents' views of the world? A prolonged-exposure experiment. *Journal of Communication*, 51, 142-163.
- Shrum, L. J. (1996). Psychological processes underlying cultivation effects: Further tests of construct accessibility. *Human Communication Research*, 22, 482-509.
- Signorielli, N., & Morgan, M. (2001). Television and the family: A cultivation perspective. In J. Bryant & J. A. Bryant (Eds.), *Television and the American Family*, 2<sup>nd</sup> ed. (pp. 333-351). Mahwah, NJ: Lawrence Erlbaum Associates.
- Tyler, T., & Cook, F. (1984). The mass media and judgments of risk: Distinguishing impact on personal and societal level judgments. *Journal of Personality and Social Psychology*, 47, 693-708.
- Weaver, J., & Wakshlag, J. (1986). Perceived vulnerability to crime, criminal victimization experience, and television viewing. *Journal of Broadcasting and Electronic Media*, 30, 141-158.
- Woo, H-J., & Dominick, J. R. (2001). Daytime television talk shows and the cultivation effect among U.S. and international students. *Journal of Broadcasting and Electronic Media*, 45, 499-521.



Copyright of Communication Research Reports is the property of Eastern Communication Association and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.