

A Content Analysis of Prime-Time TV and Radio News in Puerto Rico

Content of broadcast news in Puerto Rico similar to what it is in U.S.

► Investigators of news media often contend that the medium directly influences the content. They have focused particularly on television because it has become a major source of news for many North Americans, and many consider it their most reliable news source.¹ Media comparisons, for the most part, contrast television and newspapers.

Radio, although ubiquitous in the background, has received relatively little attention. North Americans rated radio less favorably as a news source after television became well established, but it cannot be ignored.² In Puerto Rico, where the present investigation was conducted, 97% of the families own at least one television set, and 96% own at least one radio.³ In one survey of a representative sample of television owners, 78% viewed television every day, and 75% listened to the radio. Only 49% of the sample read a newspaper daily.⁴ Because radio news most often consists of short broadcasts frequently interspersed with other content (primarily

music), a person listening to the radio is likely to be exposed to some news even when she or he is listening for other content. Radio may be a particularly important source of news for adolescents and young adults, because those groups are relatively low users of newspapers or television news and they are heavy users of radio.^{5, 6}

News analyses of all these media have most often been addressed to political or violent content. Although generalizations from these studies are limited by the fact that particular television stations or newspapers differ from one another and by the use of different categories for coding content, some trends are clear. Government or political news is the most frequently presented content in both newspapers and television in the United States.^{7, 8} The frequency of violent content and the time dedicated to it on television vary considerably across television stations and geographical areas. In most studies, local television news broadcasts devoted between

¹ George Comstock, Steven Chaffee, Nancy Katzman, Maxwell McCombs and Donald F. Roberts, *Television and Human Behavior*. (New York: Columbia University Press, 1978).

² *Ibid.*

³ Luis Nieves Falcón, *La Opinión y las Aspiraciones de los Puertorriqueños*. Unpublished manuscript, Río Piedras, P. R.: Centro de Investigaciones Sociales de la Universidad de Puerto Rico, 1970.

⁴ *Ibid.*

⁵ Jack Lyle, and Heidi R. Hoffman, "Children's Use of Television and Other Media." In Eli A. Rubinstein, George A. Comstock, and John P. Murray, eds., *Television and Social Behavior*. (Washington, D.C.: U.S. Government Printing Office, 129-256, 1972).

⁶ George Comstock, Steven Chaffee, Nancy Katzman, Maxwell McCombs and Donald F. Roberts, *Television and Human Behavior*. (New York: Columbia University Press, 1978).

⁷ Williams C. Adams, *Local Public Affairs Content of TV News*. *Journalism Quarterly*, 57:690-95 (1980).

⁸ Robert R. Smith, "Mythic Elements in Television News," *Journal of Communication*, Winter 1979, pp. 75-82.

► Glorisa Canino is director of research of the Mental Health Secretariat of Puerto Rico and associate professor of the Department of Pediatrics of the University of Puerto Rico, School of Medicine, while Aletha Huston is professor of human development and psychology at the University of Kansas. Acknowledgement is due to Aida Guzmán for her helpful ideas and encouragement, to Maritza Rubio and Jose Martinez for helping in the coding and data analysis, to John Wright who provided valuable comments and to Milagros Bravo who directed the project. The research project was supported by the Department of Health, Mental Health Secretariat of Puerto Rico.

13% and 23% of their time to news of crime and violence.^{9, 10} Network news in some studies contained lower amounts of violence, an apparent decrease from the 40-50% found a decade earlier.¹¹ Newspapers often had a higher frequency of crime-related or violent stories than did television.^{12, 13} However, in one investigation, television illustrated violent accounts more frequently with film or videotape than newspapers did with photographs.¹⁴

The investigation presented here is the first analysis of the content and structure of television and radio news in Puerto Rico. Puerto Rico is a good location for testing generalizations derived from studies in the United States. It is sufficiently developed economically to have almost complete saturation of radio and television, and, more important, it is a democracy with a free press. Yet, it is culturally different in many important respects. The Spanish language and heritage give it an affinity with Latin America. It is geographically small, and all of the radio and television stations are "local;" that is, they do not belong to United States networks, and their news is locally produced. The findings from this investigation provide some

across-culture perspective on those from the United States and other highly developed nations.

The news topics chosen for analysis included politics, economics, violence, sex and health. Politics and economics were selected because of their prevalence in earlier studies. Health was included because the State Department of Health was particularly concerned to learn the amount of information about physical and mental health being provided to the public.

Violence and sex were of special interest because of their potential for producing emotional arousal or aggressive behavior among viewers. There is a large body of literature showing that fictional violence or sexual content can be arousing,¹⁵ can influence viewers' perceptions of real world violence,¹⁶ and can lead to aggressive behavior.¹⁷ Much less information exists about the effects of news, but what is shown suggests that news may have more impact than fiction. Zillmann,¹⁸ for example, has shown that harm-inflicting actions believed to have actually occurred are more arousing than the same actions believed to be fictional. Other studies¹⁹ have shown that people are more likely to imitate aggression when they believe it is real than when it is fictional.

Because of Puerto Rico's unique political status as a Latin American country which is a commonwealth affiliated with the United States, stories were also examined for the country of origin. The major purpose of this analysis was to determine the extent to which the media emphasized news from Puerto Rico, the United States, Latin America and other parts of the world.

In summary, the purposes of the present investigations were to examine the content of news presentations in two media, radio and television. Puerto Rico was the site of the study, providing some cross-cultural comparative information.

Method

Television Sample. The sample of television news programs consisted of all programs in one week of videotaped prime-time news programming, which for Puerto

⁹ Doris A. Graber, "Is Crime News Coverage Excessive?" *Journal of Communication*, Summer 1979, pp. 81-92.

¹⁰ Joseph R. Dominick, Alan Wurtzel and Guy Lometti, "Television journalism vs show business. A Content Analysis of Eyewitness News." *Journalism Quarterly*, 52:212-218 (1975).

¹¹ Dorothy G. Singer, D. M. Zuckerman, and Jerome L. Singer, "Helping Elementary Children Learn About TV." *Journal of Communication*, Summer 1980, pp. 84-93.

¹² Graber, *op. cit.*

¹³ Dominick, *op. cit.*

¹⁴ Comstock, *op. cit.*

¹⁵ Dolf Zillmann, "Cognitive and Affective Influences: Television Viewing and Arousal," in David Pearl, Lorraine Bouthilet and Joyce Lazar, Eds., *Television and Behavior: Ten Years of Scientific Progress and Implications for the Eighties*. (Washington, D.C.: U.S. Government Printing Office, 1982).

¹⁶ George Gerbner, Larry Gross, Michael Morgan, and Nancy Signorielli, "The Mainstreaming of America: Violence Profile No. 11." *Journal of Communication*, Summer 1982, pp. 10-19.

¹⁷ David Pearl, Lorraine Bouthilet, and Joyce Lazar, eds., *Television and Behavior: Ten Years of Scientific Progress and Implications for the Eighties (Vol. 1): Summary report*. U.S. Department of Health and Human Services Publication No 1195. (Washington, D.C.: U.S. Government Printing Office, 1982).

¹⁸ Dolf Zillmann, *op. cit.*

¹⁹ T. P. Meyer, "The Effects of Sexually Arousing and Violent Films on Aggressive Behavior." *Journal of Sex Research*, 8:324-331 (1972).

Rico is 6 to 7 p.m. or 6 to 6:30 p.m. (depending on the station), for each of the four major TV channels in August of 1982. The sample consisted of 428 news stories, 45% of the news from the government station (Channel 6) which is publicly supported, 34% from channel 2, and the remaining 21% from Channel 4, both of which are commercial stations. One of the commercial TV channels (Channel 7) was not included in the sample because it did not present factual news, but editorialized commentaries on the news. A one week sample has been demonstrated to be as generalizable to a year's programming as larger randomly drawn samples.

Radio Sample. The radio news sample was selected by examining the results of *Asesores Asociados*²¹ regarding the time period of greater audience, and the stations with the highest rankings. Radio prime-time for Puerto Rico is from Monday to Friday from 6 to 10 a.m. and from 3 to 7 p.m. There are 96 stations on the island. Only the 10 stations with the highest audience rankings were selected for analysis. Of these only five included news. Data from *Asesores Asociados*²² reveals that these rankings are stable at least for a period of one year. All the stations sampled were commercially financed.

The sample was audiotaped and analyzed during a week in January 1983. It consists of 55 programs for a total of 2,397 radio news stories, 36% from WKAQ, 32% from WUNO, 18% from WIAC, 12% from WAPA and the remaining 2% from WQBS.

There is a considerable difference in the size of the radio and television sample. The radio sample is larger because radio prime-time consists of many more hours than television prime-time. Furthermore, there are more radio stations (86) than TV channels (4). Even though only the top ranking radio stations were studied, five (5) radio stations and three (3) TV channels provided the final sample or prime-time hours.

Procedure

The samples of TV and radio news stories were subjected to a coding instrument

that examined different content and structural aspects of the news programs. The instrument was developed by the first author based in part on the methodology employed in other television news research.^{23, 24, 25} The unit for coding was the news story content. The content was classified into six categories: Politics and government, economy, health, violence, sex and others. Politics and government was coded for news related to public institutions. Economics content was defined as news related to the national or world economy such as unemployment, inflation, salaries and the like. Violent content was defined as a visual demonstration or narration of physical force with or without a weapon, against self or others, compelling action against one's will on pain of being hurt or killed, or actually hurting or killing. It included reporting of accidents and catastrophes.²⁶ Sexual content was defined as any reference in the news story to the physical or verbal manifestation, implicit or explicit, of erotic human behavior. Health included topics related to physical or mental illness, use or abuse of drugs, physical handicap, and delivery of health services. Other topics were any content not included above. Each story was also coded for the geographical place in which the news originated: Puerto Rico, United States, Europe, Latin America, Orient and other.

The unit for coding content was the news story. Observations were made by a group of six pairs of rigorously trained coders who viewed and recorded independently the sample studied. Data from each sample were subjected to an extensive reliability analysis to insure that the observations reflected the properties of the materials under investigation rather than instrument ambiguity or observer bias.

²³ George Gerbner, Larry Gross, Michael Morgan and Nancy Signorielli, "Programming Health Portrayals. What Viewers See, Say and Do," in David Pearl, Lorraine Bouthilet, and Joyce Lazar, Eds., *op. cit.*

²⁴ *Asesores Asociados, Inc., Radio Audience Estimates.* (Sanurce Marketing Research and Consulting, Feb. 1982).

²⁵ *Ibid.*

²⁶ Adams, *op. cit.*

²⁷ Graber, *op. cit.*

²⁸ Smith, *op. cit.*

²⁹ Gerbner, Gross, Morgan and Signorielli, *op. cit.*

Fifty percent of the samples were coded independently by two separate trained coders to provide double coded reliability comparisons throughout the sample coding. An agreement coefficient was then calculated for each item and only items with coefficients greater than or equal to .67 were included in this analysis.^{27, 28, 29}

Results

The number and percent of television and radio stories which fell in each category are shown in Table 1. Those stories which could be placed in more than one category are designated separately.

Politics was the most frequent topic on both media, though it was presented somewhat more frequently on radio than on television. Economics was second in frequency, then violence, then health and finally sex. On the whole, although radio contained a higher percentage of political stories than television, the media were similar in the *relative* number of stories devoted to the five topics that were the subject of the content analysis.

Country of Origin of News Stories. The final analysis, conducted on the total sample, was an examination of the country in which the news story originated. As shown in Table 2, approximately 2/3 of the stories on both radio and television dealt with events in Puerto Rico, and another 13.6% originated in the United States. On television, the remaining stories more often originated in Europe or the Orient than in Latin America. The remaining radio stories were more often from Latin America than other parts of the world.

²⁷ The assessment of reliability consists of the calculation of an agreement coefficient for each content theme. Five computational formulae are used; their variations depend upon the scale type of the particular variable being analyzed. For the derivation of the formulae and a discussion of their properties see, Krippendorff, (1970) and (1980). The coefficients range from +1.00 to -1.00 where +1.00 indicates perfect agreement and .00 is agreement due solely to chance. A coefficient of .50 indicates that performance is 50 percent above the level expected by chance. Acceptable levels of reliability are defined as follows: Items with agreement coefficients of .80 or above are accepted unconditionally, items with coefficients which fall between .50 and .60 are used with extreme caution. All items used in this analysis met these standards.

²⁸ Klaus Krippendorff, "Bivariate Agreement Coefficients for the Reliability of Data," in E. F. Borgatta, Eds., *Sociological Methodology*. (San Francisco: Jossey-Bass, 1970).

²⁹ Klaus Krippendorff, *Content Analysis: An Introduction to Its Methodology*. (Beverly Hills: Sage Publications, 1980).

TABLE 1

Percent of News Stories on Radio and Television Content Topics.

Content Category	Television N%	Radio N%
Politics	29.0	41.1
Politics and other	11.2	7.0
Economics	10.0	10.0
Economics and other	6.3	3.7
Violence	6.8	5.7
Violence and other	5.6	4.0
Health	4.9	2.4
Health and other	4.7	1.3
Sex	0.0	0.2
Sex and other	0.2	0.5
All other	21.2	24.2
	N=428	N=2397

Conclusions

The content of broadcast news in Puerto Rico is similar to that in the United States. Political and government stories command a relatively large amount of radio and television news time, and economy news ranks second. Both media devoted a relatively small proportion of their stories to crime and violence, but the amounts in Puerto Rico appear comparable to local news stations in the United States.

This investigation provides one of the few comparisons of radio and television. The content of the two media is similar, except for political content which appears more frequently in radio and then television. Although the majority of news on both media is "local", international news on radio more often originates in Latin America, while television contains more stories from Europe and the Orient. Given that Puerto Rico is a Latin American country, it is striking that television has three times as many stories from Europe as from Latin America. One reason may be that television production and broadcast facilities are less widely available in underdeveloped nations; as a result, fewer

TABLE 2

Percent of News Stories on Radio and Television which Originated in Different Countries.

Country of Origin	Television Percent	Radio Percent
Puerto Rico	64.6	65.5
United States	12.8	13.6
Europe	8.6	5.2
Latin America	3.4	8.4
Orient	8.9	2.7
Other	1.8	4.6
	N=384	N=2397

stories are videotaped for satellite transmission. Radio has fewer technological requirements, so can more readily include stories from economically underdeveloped areas.

How widely can these findings be generalized? The study provides some cross-cultural confirmation of conclusions based on United States data, but it is difficult to determine how extensively they can be

generalized. The distribution of topics might well be altered in countries with a heavily regulated press. To the extent that the radio and television differences are a result of the inherent properties of the media, they should be widely applicable. One methodological question is that the samples of radio and television news in this investigation were taken from different time periods. The television sample was collected in August 1982, and the radio sample in January 1983. However, other investigations^{30, 31} have shown little variation over time in the distribution of topics.

In conclusion, television and radio in Puerto Rico and the United States present similar news content in most respects. Further cross-cultural research is necessary in order to interpret these findings. It is possible that Western world countries have similar dominant ideologies and thus their news contents will not vary significantly. Comparisons data with non-Western or third world countries is needed.

³⁰ Asociados, *op. cit.*

³¹ Gerbner, *op. cit.*

MASS MEDIA AND BLACK STUDENT PERCEPTIONS

(Continued from page 143)

quite different conclusions. As noted in Table 2, students strongly rejected the assertion that Jackson was treated fairly by the press. At the same time, the data in Table 1 indicate that acceptance of that assertion is unrelated to any kind of media use.

Following the "Hymie" incident and Jackson's frequent interrogation about his relationship to the Reverend Farrakhan, the students' view of Jackson's treatment by the press declined still further ($t=7.23$, $p<.001$). Thus, it would appear that we have evidence of rather selective use of media content by these black youth. Content which supported their positive view of

Jackson may have elevated that view even higher, while content which was critical of Jackson was rejected as misbehavior on the part of the press.

Future studies of this population should concentrate on press treatment of issues about which there is a strong or developing racial or ethnic identification. Black students will be important subjects for extending our knowledge of the role of the press as it covers the struggle for the liberation of South Africa. Comparative studies of black and white youth around issues related to Africa and the Third World will extend our knowledge still further.

Copyright of Journalism Quarterly is the property of Association for Education in Journalism & Mass Communication. The copyright in an individual article may be maintained by the author in certain cases. 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.