

Television News and the Cultivation of Fear of Crime

By Daniel Romer, Kathleen Hall Jamieson, and Sean Aday

Why has the public persisted in believing that violent crime is a widespread national problem in the U.S. despite declining trends in crime and the fact that crime is concentrated in urban locations? Cultivation theory suggests that widespread fear of crime is fueled in part by heavy exposure to violent dramatic programming on prime-time television. Here we explore a related hypothesis: that fear of crime is in part a by-product of exposure to crime-saturated local television news. To test this, as well as related and competing hypotheses, we analyzed the results of a recent national survey of perceived risk; a 5-year span of the General Social Survey (1990–1994); and the results of a recent survey of over 2,300 Philadelphia residents. The results indicate that across a wide spectrum of the population and independent of local crime rates, viewing local television news is related to increased fear of and concern about crime. These results support cultivation theory's predicted effects of television on the public.

Violent crime was among the American public's most important concerns during the 1990s. According to the 1994 Gallup Poll, concern about crime reached its highest point in history in that year. Nevertheless, both police arrest records (Fox & Zawitz, 2000) and annual victimization studies (Rennison, 2000) show that violent crime declined throughout the 1990s. Although it has since dipped in importance, crime continues to show up on surveys as a cause for national concern. Moreover, fear of crime is widespread despite the fact that violent crime tends to occur in low-income urban areas and not in the suburbs that house the majority of the population (Scheingold, 1995). Our research asks whether these polling data reflect the mugging of America not by violent crime but by television news accounts of it. In this research, we test several competing theories for the public's persistent belief that violent crime is a widespread national problem.

Daniel Romer (PhD, University of Illinois at Chicago) is research director at the Institute for Adolescent Risk Communication, Annenberg Public Policy Center, University of Pennsylvania. Kathleen Hall Jamieson (PhD, University of Wisconsin-Madison) is dean of the Annenberg School. Sean Aday (PhD, University of Pennsylvania) is assistant professor at the School of Media and Public Affairs, George Washington University. Support from the Pew Charitable Trusts for parts of this research is gratefully acknowledged. Please send correspondence to Dan Romer, Annenberg Public Policy Center, University of Pennsylvania, 3620 Walnut St., Philadelphia, PA 19104-6220; e-mail: Dromer@asc.upenn.edu.

Competing Theories

Cultivation theory, a particularly influential analysis of television's effects on the public, rests on the assumption that prime-time television portrays a world more filled with menace than the one most of us inhabit (Gerbner & Gross, 1976; Gerbner, Gross, Morgan, & Signorielli, 1994). However, over 20 years of research have provided only qualified support for the effects of high exposure to dramatic programming in adults (Morgan & Shanahan, 1997). When demographic variables are held constant, some have failed to find any effect of overall television viewing at all (Hirsch, 1981; Hughes, 1980). When found, the correlations are often weak (Gerbner & Gross, 1976; Gerbner, Gross, Signorielli, Morgan, & Jackson-Beeck, 1979). Some have argued that those defending the theory have failed to account for selective viewing (e.g., Potter & Chang, 1990). Others have argued that the cultivation hypothesis fails to take into account intervening variables (e.g., Rubin, Perse, & Taylor, 1988).

Although news programming is occasionally caught in the net of those exploring the cultivation hypothesis, most studies have concentrated on either viewing as a whole or exposure to dramatic nonnews programs. However, we know that television news can shape perceptions in consequential ways. For example, national television news can frame the evaluation of political figures and define political agendas for the public (Iyengar & Kinder, 1987; McCombs, Lopez-Escobar, & Llamas, 2000). Nevertheless, these effects are presumed to reflect events in the world that the news makes salient. It is another step to argue that the structure of the news cultivates stable but unrealistic expectations and fears in the public that are independent of actual crime rates.

One news source that has the potential to cultivate stable expectations in the public is local television news. Not only has it become the most widely used news source for Americans (Patterson, 2000), but it also has unique conventions that make its content especially relevant for the public's views of crime (McManus, 1994). Although this news source presumes to give viewers factual stories about their media region, it relies heavily on sensational coverage of crime and other mayhem with particular emphasis on homicide and violence (Hamilton, 1998; Klite, Bardwell, & Salzman, 1995, 1997). This coverage could well increase fear of crime by cultivating expectations that victimization is both likely and beyond our control.

Our research was designed to determine whether exposure to local television news increases the perceived personal likelihood of criminal victimization and heightens its perceived importance as a political problem. This television-exposure hypothesis is consistent with evidence that people rely on available instances in memory to form generalizations and make judgments (Tversky & Kahneman, 1973). The availability heuristic suggests that repeated exposure to violent crime stories on television news increases their availability in memory. Crime coverage should increase perceived vulnerability to the degree such stories air frequently, are framed dramatically, and are meaningful to the viewer. In short, the television-exposure hypothesis predicts that exposure to this information, especially through local television news, increases the salience of crime independently of actual trends or rates of local crime and of viewer characteristics.

Diffusion of Fear Through Social Networks

A major alternative to cultivation theory as an explanation for the public's fear of crime is that people use their personal experience or the experience of others in their social networks to decide whether they should be concerned about crime (Sacco, 1995; Surette, 1992). According to Sacco:

Overall, it would appear that as crime news relates to matters of personal safety, consumers appear to exercise a healthy dose of skepticism. . . . They are more likely to put what is learned from the media in the context of what they learn from other sources (in their social networks), and they may be well aware when media are behaving in a highly sensationalistic manner. (p. 153)

According to this interpersonal-diffusion hypothesis, coverage of crime on television news may merely reflect the prevailing levels of crime in the region. Furthermore, if residents of high-crime areas also watch more local television news, then an apparent relation between local news viewing and fear of crime could result (cf. Doob & Macdonald, 1979). From this perspective, television news may add very little to the public's fear of crime beyond the effects of actual crime rates in the local media market. To test this hypothesis, we examined perceptions of crime risk as a function of both regional and neighborhood crime rates. If the relation between local television news viewing and fear of crime is entirely a function of local crime rates, then holding crime rates constant should largely eliminate the evidence in support of the television-exposure hypothesis.

A related explanation holds that exposure to crime news can influence perceived risk but that this perception is more likely to apply to others (societal risk) than to viewers themselves (Tyler & Cook, 1984). According to this hypothesis, television news should not influence personal risk judgments because the likelihood is small that crime stories involve others we know. Nevertheless, judgments of societal risk may be influenced by crime reporting because all crime stories are relevant to this judgment. In contrast, the television-exposure hypothesis predicts that repeated exposure to stories showing ubiquitous and unpredictable crime can affect judgments of both personal and societal risk.

The television-exposure hypothesis does not preclude the effects of diffusion through social networks. To the extent television news focuses on the most serious (and sensational) crime stories, viewers' concerns about crime should also be transmitted through their social networks. Indeed, the television-exposure hypothesis predicts that crime coverage on local television news can influence entire media regions irrespective of local crime rates and direct exposure to television news.

The Social-Comparison Hypothesis

Aside from hypotheses that focus on the role of social networks, another perspective focuses on whether or not crime coverage is locally relevant to the audience. The social-comparison hypothesis rests on the argument that perceptions of crime risk are formed by comparing one's home region with other places (Heath, 1984). If news reporting focuses on crime in distant places, perceptions of personal risk are likely to be lower by comparison than if the reports focus primarily on local

crime. This hypothesis predicts that exposure to local television news should increase personal risk perceptions. However, predictions are less clear about exposure to national television news. Heath tested the hypothesis in local newspapers and found that greater coverage of national crime (and hence less coverage of local crime) was associated with lower perceptions of personal risk (see also Liska & Baccaglioni, 1990).

In the context of television news, however, increased crime coverage on national news can occur without affecting the amount of crime covered in local news. As a result, national crime coverage might also increase perceptions of personal risk, especially if the crimes that are covered could happen locally. Prior to 1993, national television news devoted relatively little time to crime and then primarily to events surrounding celebrities. This ended abruptly in 1993 when coverage of crime (e.g., drive-by shootings, violence in schools) increased more than 100% over the previous year (Lichter & Lichter, 1997).

Although the social-comparison hypothesis does not predict that increased national television coverage will always reduce perceptions of personal crime risk, it does predict that viewers will form judgments of personal risk based on a comparison between perceived crime at the local level and other areas. If national coverage suddenly suggests that crime is more prevalent in other areas than previously expected, then perceptions of local crime will seem less severe by comparison. However, if national coverage suggests that crime risk is also more likely locally than previously expected, then a more complex pattern may occur, resulting in either no change or a potential increase in risk perceptions depending on prior perceptions of local crime. In particular, the social-comparison hypothesis predicts that increases in national coverage will increase personal perceptions of risk primarily in areas with lower prior coverage of crime or lower crime rates. For areas with already high coverage or crime rates, increases in national coverage should either reduce perceived risks of crime or have no effect.

Tests of Television News Influence

To test the various hypotheses, we report the results of three studies that allow progressively more focused examination of the influence of local television news. The National Risk Survey (or NRS) is a national probability survey conducted in 1997. This survey enabled us to examine the relation between exposure to various news sources and assessments of crime risks as well as a host of other risks covered by the media.

The second data source was the General Social Survey (GSS), which contains respondents in over 30 metropolitan areas (MAs) of the country. The GSS allows us to assess perceptions of personal crime risk in both the central cities and suburbs of these MAs and to compare these perceptions with crime rates tabulated by the FBI. It also allows us to look at variation in local television news coverage of crime in those regions. This feature allows us to contrast the effects of media coverage (television-exposure hypothesis) with local crime rates (interpersonal-diffusion hypothesis) as influences on fear of crime. It also allows us to test the social-comparison hypothesis, which predicts different effects for national versus local crime coverage.

Our third source of data was a random sample of Philadelphia residents conducted in December 1998. This survey allowed us to examine variation in concerns about crime within a large city and to relate this variation to police reports of crime at the neighborhood level. These data provided a sensitive test of the interpersonal-diffusion hypothesis, which predicts that concern about crime is a function of local violent crime rates rather than of television news coverage of crime.

Study 1

Method

The NRS was conducted for the Annenberg Public Policy Center of the University of Pennsylvania under the supervision of Paul Slovic and Howard Kunreuther and in collaboration with Kathleen Hall Jamieson. The survey was conducted over the telephone in the fall of 1997 with 1,204 respondents selected using random digit dialing. Within households respondents who were 18 years of age or older and had most recently celebrated a birthday were selected. Black and Hispanic persons were oversampled to allow more detailed analysis of these ethnic groups. Up to 50 calls were made to reach sampled phone numbers. The net response rate, taking into account the likelihood that some unreached numbers would be ineligible, was 43%. In presenting descriptive results, we report the data weighted according to racial and gender proportions in the U.S. Census. However, in conducting regression analyses, we held constant major demographic differences using the unweighted data.

Respondents were asked to evaluate the personal risk to themselves and their families of 13 environmental risks: blood transfusions, coal- and oil-burning power plants, natural disasters (such as floods, earthquakes, or hurricanes), motor vehicles, nuclear power plants, street drugs, lead in dust or paint, electromagnetic fields, pesticides, stored nuclear waste, vaccines, handguns, and violent crime. Respondents were also asked to evaluate all of the above risks (except for handguns and violent crime) in terms of risk to the American public as a whole. In addition, respondents were asked to evaluate the following eight risks to the public: cellular phones, airplane travel, tap water, secondhand cigarette smoke, radon in homes, asteroids, multiple sex partners, and chemical manufacturing. The entire set of 32 ratings were completed in a random order for each respondent. Risk ratings were recorded using a 1 to 4 scale: *almost no risk*, slight risk, moderate risk, or *high risk*.

To determine how respondents used various news media, they were asked to rate how frequently they used nine news sources: national television news, local television news, radio news programs, television news magazines, *Jim Lebrer Newshour*, conservative talk radio, Christian broadcasting, daily local newspapers, and national daily newspapers. Ratings were recorded using a 1 to 4 scale: *never*, rarely, sometimes, or *often*.

Results

Respondents' ratings indicate that respondents viewed various crime-related risks

as among the most serious threats to both the public and to their families. Because male and female respondents rated the risks in much the same order ($r = .98, p < .01$), only overall means are presented. Street drugs as a threat to the American public were rated as the most serious risk along with the threat of multiple sex partners ($M = 3.5$). Street drugs and violent crime as threats to respondents' families were ranked third among all risks along with motor vehicles and stored nuclear waste ($M = 3.0$). Handguns as a threat to families were ranked fifth ($M = 2.8$).

To determine if respondents reacted similarly to the different crime questions, we conducted a factor analysis of the 32 ratings. Because we were interested in variation in risk perceptions relative to other risks, we rescaled each respondent's raw ratings to a standard score using the respondent's mean and standard deviation across all 32 risk ratings. This procedure converts each respondent's ratings to the same scale so that differences in ratings reflect location relative to other risks rather than to an idiosyncratic scale defined by each respondent.

The factor analysis indicated that reactions to crime were related. Specifically, if a respondent thought that the risk of one crime item was severe, then she thought the others were as well. The analysis produced 11 factors based on an initial principal components analysis using eigenvalues greater than .90. The largest factor in the varimax rotated solution was a crime factor that contained street drugs as a risk to family (.90), violent crime (.79), handguns (.62), and street drugs as a threat to the American public (.64). The second factor contained loadings from the several nuclear power items, and the third factor indicated that street drugs as a threat to the public were also related to the risks of chemical manufacturing. This analysis confirms that the drug risks contained in the crime factor shared an underlying concern about violence rather than the hazards of recreational use of drugs. It also confirms that respondents see crime risks as relevant not only to the general public but to themselves and their families as well.

Consistent with other national surveys, local television news was the most frequent source of news. Nearly 70% of the sample claimed to use it often, and another 18% said they relied on it sometimes. Less than 60% of the sample reported watching national television news often. Local daily newspapers were close in popularity to national television news (about 60% claimed to use it often). An oblique factor analysis of the nine news sources indicated that three factors described the dominant usage patterns. Local television news (.72) defined one factor, with national television news (.62) and television news magazines (.51) also loading on the factor. National newspapers (.75) defined a second factor with local newspapers (.35) also loading, and conservative talk radio (.63) defined a third with Christian Broadcasting (.42) and radio news (.38) also loading. We used the highest loading indicators of each factor to estimate the relation between news media use and risk perceptions: local television news, national newspapers, and conservative talk radio.

Because the four perceptions of crime risk were related, we used the average of the four ratings as a dependent variable in a regression analysis with the three news sources as predictors. Graphic analysis of the relation between each news source and risk ratings revealed that most of the variation occurred between the "rarely" and "sometimes" levels of the exposure variable. Therefore, we dichoto-

mized frequency of exposure to each news source to reflect low (never or rarely) versus high use (sometimes or often).

This analysis revealed that local television news was a significant predictor of crime risk perceptions, $t(1138) = 3.54, p < .01$, and that neither of the other two news sources could account for this relation, $t(1138) = -.08, -.76, p > .20$. Neither use of national television news nor local newspapers was related to crime risk perceptions. Analyses of the other risks indicated that only one, radon in the home, was related to television news exposure, and this relation depended on the gender of the viewer. Hence the effects of television news viewing appeared to be limited to the perceived risks of crime.

The relation between viewing and risk perception was robust despite challenges from other predictors, including age, racial or ethnic background, gender, education, income, and political orientation. Of these variables, only age, education, and ethnicity were predictors in the analysis. In the case of age, younger respondents (ages 18 to 24) did not display the same relation between viewing and crime risk perception as older respondents $t(1138) = 2.87, p < .01$. For them, the relation was reversed, with lighter viewers expressing more concern about crime.

In sum, the results suggest that local television news viewing raises the perceived risk of crime above other risks also covered in the media. In addition, these risks were perceived to extend beyond those that merely affect the general public.

Study 2

Method

Study 2 examined the GSS, which uses a two-stage stratified sampling procedure to select a representative cross-section of U.S. households. The GSS first selects a sample of metropolitan areas (MAs) and then samples respondents from both the cities and suburbs of these areas. Using data for the years 1990, 1991, 1993, and 1994 (the four most recent years of survey data that bracket the increase in television news coverage of crime), we examined fear of neighborhood crime in 36 of the 50 largest metropolitan areas in which the survey was conducted. The GSS measures perceived risk of crime victimization by asking if respondents are afraid of walking alone at night in their neighborhoods (yes or no). We linked each MA with FBI crime data for 1993 in the central city of the MA. We chose this year because it coincided with the year in which crime coverage dramatically increased on national television news (Lichter & Lichter, 1997). As coverage increased, national rates of homicide reported by the FBI declined, a trend evident from 1991 onward (Fox & Zawitz, 2000). Although other indexes of overall criminal victimization reported in the National Crime Victimization Survey had been increasing since the mid 1980s, there was nothing extraordinary about these rates, and they were leveling off in the early 1990s.

Assessment of local television news reporting. To assess the possible role of local television news reporting, we examined two studies conducted by the Rocky Mountain Media Watch (Klite et al., 1995, 1997) and one conducted by the Annenberg Public Policy Center (Aday & Jamieson, 1998). The Rocky Mountain

Table 1. Percentages of Respondents Reporting Fear of Walking in Their Neighborhood by Robbery Rate in 36 Metropolitan Areas at Two Time Periods (GSS)

Robbery rate*	Central cities		Suburbs	
	1990–1991	1993–1994	1990–1991	1993–1994
100–250	55	60	30	45
250–400	43	68	39	45
400–550	50	67	33	55
550–700	53	62	51	46
700+	65	74	56	40
Total (N)	55 (268)	67 (434)	39 (343)	44 (626)

*Number of robberies in 1993 per 100,000 residents in central cities covered by the GSS; entries are percentages of respondents who claimed fear of walking in their neighborhood at night.

studies looked at local late-night news reporting on 50 and 100 stations on 2 separate evenings 8 months apart in 1995. Proportions of time spent on crime stories on each station were compared to the median level of crime coverage for each evening (48% and 38%, respectively). Based on these data, we selected cities that had at least two of their three local news broadcasts on a national network (ABC, CBS, or NBC) above the median (high crime coverage) and cities that had at least two out of three of their broadcasts on a national network below the median (low crime coverage). For cities that were studied only on 1 of the 2 nights, we required all three stations to be above or below the median for that night.

By these criteria, we found seven high-coverage cities (Atlanta, Boston, Chicago, Los Angeles, Philadelphia, San Francisco, and Seattle) and five low-coverage cities (Dallas, Denver, Houston, Jackson, and St. Louis). The study by Aday and Jamieson (1998) confirmed that Philadelphia and Seattle were comparable and high in crime coverage. An analysis of Lexis-Nexis transcripts of local news broadcasts verified the assignments and suggested the addition of a sixth low-coverage city, San Diego.

Unfortunately, the GSS does not assess use of various news sources. However, the television-exposure hypothesis predicts that, given the high penetration of both local and national television news, this survey would show the effects of these news sources independently of actual viewing habits.

Results

As seen in Table 1, fear of crime increased dramatically from 1990–1991 to 1993–1994, rising 12 percentage points in the cities and 5 points in the suburbs. Logistic regression analysis was used to identify significant predictors of fear, holding constant respondent demographic characteristics and city population size. We report both a partial correlation coefficient (*pr*) supplied by SPSS for logistic regression and the probability of the null hypothesis for each coefficient. This coefficient measures the incremental improvement in fit that is achieved by including the predictor in the equation.

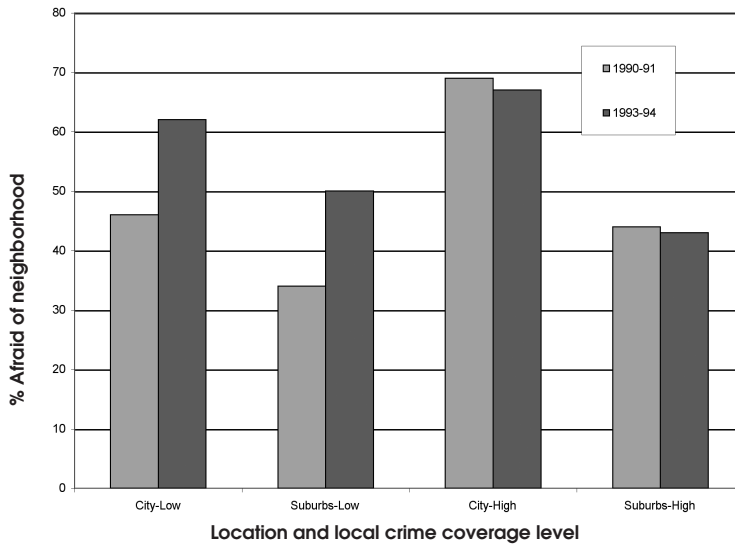


Figure 1. Reported fear of walking in neighborhood in media regions with low and high chronic crime coverage at two time periods in the GSS.

This analysis confirmed that fear was higher in the cities than in the suburbs ($pr = .12, p < .01$) and in the 1993–1994 than the 1990–1991 period ($pr = .05, p < .01$). In addition, the rise in fear was greater in the cities than in the suburbs ($pr = .09, p < .01$). Also shown in Table 1 is the relation between violence reported by the police and reports of fear. Our results replicate previous findings for city residents (Liska et al., 1982) that fear of crime is related to robbery rates reported by the police. We extend this pattern to the suburbs, where fear was also linked to central city robbery rates ($pr = .06, p < .01$). Neither city population nor murder rates added significant predictive power. However, respondent age, income, and gender were related to reports of fear.

The social-comparison hypothesis predicts that robbery rates should interact with year of survey in predicting fear. In particular, fear should increase only from 1990–1991 to 1993–1994 in areas with low to moderate robbery rates. Fear of crime in the suburbs conformed to the expected pattern (Table 1). In suburbs with high central-city crime rates, fear actually declined across the two time periods. In the cities, however, fear increased from 1990–1991 to 1993–1994 independently of crime rates in the central cities. A test of the three-way interaction between robbery rates, residential location, and year of survey confirmed the differential increase of fear over time across cities and suburbs ($pr = .05, p < .01$).

Figure 1 contains the rates of fear in media regions with high and low chronic-crime coverage on local television news for the two time periods. As observed in the previous analysis, cities had higher levels of fear than their suburbs ($pr = .12, p < .01$). Regions in the 1990–1991 period with high crime coverage had higher levels of fear than low-coverage regions. As predicted by the television-exposure hypothesis, these higher rates of fear characterized both the cities and their sub-

urbs. However, in the 1993–1994 period, fear increased in the low-coverage regions to the point where there was no statistically reliable difference between the high- and low-coverage regions. The two-way interaction between level of chronic crime coverage and year of survey was significant ($pr = .07, p < .05$).

As predicted by the social-comparison hypothesis, the national surge in fear of crime occurred primarily in media regions with low crime coverage on local television news and hence lower initial levels of fear. Areas with preexisting high levels of local coverage were predicted either to show no change or to decline in fear. The results indicated that high-coverage regions showed little change in fear despite the dramatic increases that occurred in the low-coverage areas. Although the cities with high coverage might have had limited ability to show increased fear, the suburbs were certainly able to exhibit such a shift as evidenced by the dramatic increase that occurred in the low-coverage suburban areas.

Alternative explanations propose that fear is a result of actual crime rates in local media regions. However, variation in chronic crime coverage predicted fear of crime independent of local violent crime rates. Indeed, central-city robbery rates that were marginally significant predictors in the analysis ($pr = .04, p < .10$) did not eliminate any of the relations between fear and coverage or year of survey. In addition, differences between media regions and year of survey were stable despite the inclusion of significant predictors of fear, including income ($pr = .09, p < .01$) and gender ($pr = .26, p < .01$). Neither city population size nor murder rates contributed to predicting fear in the analysis.

Another explanation would hypothesize that violence reported to the police increased in the low-coverage media regions. That possibility is unlikely in view of the national trend toward lower violence during this period. Additionally, a comparison of robbery rates between 1993 and 1995 revealed very little change in relative standing across cities ($r = .94$).

Study 3

Method

The final evidence we present focuses on the effects of local television news in a single city, Philadelphia. We conducted telephone interviews in December 1998 with 2,369 residents selected for interviewing using random-digit dialing procedures. We selected respondents who were 18 years of age or older, who were both U.S. citizens and residents of Philadelphia. If more than one person was eligible in a household, we selected the one who most recently had celebrated a birthday. In aggregate, survey respondents matched the demographic profile of the city in gender, age, and race. Respondents were asked: "What do you personally think is the most important problem facing Philadelphia?" Responses were recorded verbatim, and each respondent's answers were coded into as many as three categories (from a list of 20 potential categories). Up to three nominations were accepted for this question. In addition to saying "crime," mentions of drug use and selling, violence, unlawful use of guns, and deficiencies in police protection were included as crime nominations.

To determine the role of television news exposure, we asked respondents how many days in the average week they (a) watched television news and (b) read newspapers. Although no distinction was made between local and national news, we knew from other surveys that more residents watch local television news than the national network news (see findings of the NRS above). We asked respondents for the name of their neighborhood and their postal zip code.

To assess the role of neighborhood crime rates, we obtained police reports of crime from a study conducted by the *Philadelphia Inquirer* (Benson, Ericson, & McCoy, 1997). The *Inquirer's* study used data reported by the police to the FBI from August 1, 1995, to July 31, 1996. Crime rates were developed using population data from the U.S. Census, corrected for population loss since 1990. Two rates were reported, one for property crime, the other for violent crime. Property crime included burglary, theft, car break-ins, and car theft. Violent crime included murder, robbery, rape, and assault. Rates per 1,000 residents varied from 29 to 389 on a combined index of the two crime categories. Rates for each of the two crime categories were reported in terms of four-point scales, ranging from very low levels of crime to very high levels.

Although crime rates were initially calculated on the basis of residential population, the rates for the central business district (center city) were extremely high compared to other neighborhoods. The *Inquirer* noted that the effective rate for center city is actually much lower because the commuter population is so high. Therefore, we examined crime rates for center city using the much larger commuter population. This estimate produced very low levels of both property and violent crime in center city.

Results

Crime was the problem most frequently named by survey respondents (49%) followed by jobs and the economy (26%) and the condition of the public schools (18%). However, the more that both men and women watched television news, the more often they identified crime as a problem in Philadelphia. A logistic regression analysis confirmed that this relation held ($pr = .04, p < .01$) despite controls for age, gender, education, and racial or ethnic background. Exposure to newspapers was negatively related to crime mentions, although at a less reliable level of significance, $pr = -.02, p < .10$.

These findings show that exposure to television news is strongly associated with the perception that crime is an important local problem. The findings are consistent with our previous results, indicating that television news viewing is related to fear of crime. Nevertheless, it is still possible that local crime rates are responsible for the relation between television news viewing and concern about crime, as the interpersonal-diffusion hypothesis suggests. If this were true, then city neighborhoods with higher crime rates should have viewers who watch more local television news and who more often nominate crime as an item for the political agenda. In addition, because violent crime is more heavily covered than property crime on local television news, violent crime rates should be a stronger predictor of both television news viewing and crime mentions. However, if television coverage of violent crime causes concern about crime in all neighborhoods

(as the television-exposure hypothesis predicts), then local violent crime rates should not be a strong predictor of crime mentions.

To assess the effects of local crime rates, we assigned survey respondents to one of 12 neighborhood areas based on their responses to the residential location questions. There was wide variation in how frequently crime was mentioned across the different neighborhoods of the city, ranging from a low of 35% to a high of 62%. Correlations between crime mentions and crime rates were calculated, using scores weighted according to the population of the neighborhood area. Crime rates using revised estimates for center city were positively related to crime mentions; however, property crime ($r = .66, p = .02$) was more strongly related to mentions than violent crime ($r = .19, p = .56$).

Although neighborhood crime mentions were not strongly related to neighborhood violent crime rates, the television-exposure hypothesis predicts that concern about crime should be related to local television news exposure even after controlling for local property crime rates. This hypothesis suggests that differences in news acquisition habits across neighborhoods could explain neighborhood differences in concerns about crime. Indeed, crime mentions were positively related to television news exposure ($r = .70, p = .01$) and negatively related to newspaper exposure ($r = -.83, p = .001$). In addition, exposure to the two news sources was negatively related ($r = -.46, p = .13$).

Because the two news sources were related across neighborhoods, we tested two measures of television news viewing: one using only exposure to television news and the other combining exposure to television news and newspapers into a single index that measured dependence on television news. The index of television dependence was the number of days spent in the average week watching television news divided by the sum of the number of days spent watching television and the number of days reading newspapers. The index ranged from 0 (*no television news*) to 1 (*nothing but television news*). If the respondent reported using neither of the sources, a score of zero was assigned. The television dependence index was also highly related to crime mentions at the neighborhood level, $r = .89, p < .001$.

A regression analysis weighted by neighborhood size with both television news viewing and property crime rates as predictors of crime mentions found that television viewing was still a predictor, $\beta = .49, t(9) = 2.00, p = .076$. When the television dependence index was tested with property crime, television viewing remained even more strongly related to crime mentions, $\beta = .78, t(9) = 4.31, p = .002$. In fact, property crime rates failed to add to the prediction of either television viewing, $\beta = .40, t(9) = 1.64, p = .14$, or television dependence, $\beta = .18, t(9) = 1.00, p = .34$. Including violent crime in either analysis also did not improve prediction.

General Discussion

The results provide strong support for the television-exposure hypothesis. The hypothesis predicts that viewers of local television news should experience heightened perceptions of crime risk on both a personal and societal level. This predic-

tion was strongly supported for all levels of analysis: national (NRS), regional (GSS), and local (Philadelphia). In addition, the relation was found for four different measures of crime concern: perceptions of personal and societal risk (NRS), fear of crime in one's neighborhood (GSS), and open-ended political agenda nominations (Philadelphia).

Evidence From the NRS

Heavier viewers of local television news rated crime-related risks more severely than lighter viewers. In addition, the exposure relation was observed for judgments of both societal and personal risk. The NRS also supported the television-exposure hypothesis rather than alternative explanations for the relation between exposure and perceptions of personal risk. First, with one exception, the relation was observed across respondent age groups. The alternative hypothesis that certain types of people watch more television news and are more likely to experience fear of crime was not supported because holding constant both age and a variety of other individual differences did not eliminate or reduce the exposure relation. Second, our scaling procedure for assessing risk perceptions measured risk relative to other risks. This implies that increased severity associated with media exposure raised the severity of those risks in comparison to other risks. As a result, we can say that the results are unique to crime risks and not to other risks that are also covered (albeit on a far less regular basis) in the news.

Evidence From the GSS

The results from the GSS add further support to the television-exposure hypothesis. Media regions with chronically high television news coverage of crime exhibited higher rates of fear in both the cities and suburbs in the 1990–1991 period. In addition, the hypothesis predicts that during the period of dramatically increasing crime coverage on national television news (1993 to 1995), there should be a general increase in fear of crime that diffuses through social networks to the general public. This prediction was also supported. There was a significant increase in fear of crime in both the suburbs and central cities from 1990–1991 to 1993–1994.

The GSS results also undermine alternative explanations that television news viewers are either drawn to the medium by their fears of crime or by realistic coverage of it. Our selection of media regions according to chronic levels of local television crime coverage independent of local violent crime rates indicates that it is the exogenous influence of news coverage that determines fear rather than viewer selection or local crime rates. Furthermore, increases in crime coverage on national television news also appeared to increase fear. It would seem therefore that the causal direction flows from local and national news coverage to local perceptions of crime risk and that this coverage need not reflect trends in crime as reported by the police.

Evidence From the Philadelphia Study

The study of Philadelphia residents extended the role of television news exposure to the political agenda. Philadelphia has chronically high television crime coverage, and residents of the city mentioned crime more frequently than any other

problem as the most important issue facing the city. Individual variation in crime mentions was related to exposure to television news even after controlling for individual background characteristics. Analysis of neighborhood crime rates as reported by the police enabled a strong test of the alternative interpersonal-diffusion hypothesis. This hypothesis was rejected for several reasons.

First, neighborhood violent crime rates were unrelated to crime mentions even though violent crime is the major focus of crime coverage on local television news. If residents' concerns about crime were influenced by neighborhood violent crime rates, then these rates should predict their mentions as well as their television news viewing. Second, the finding that property crime rates were related to crime mentions indicates that residents were sensitive to local crime rates. However, even after controlling for property crime rates, exposure to television news was related to crime mentions. The relation was even stronger when dependence on television news was used as the measure of news exposure. The more that residents relied on television for their news, apart from newspapers, the more apparent was the influence of television news.

In sum, the Philadelphia study indicates that the best explanation for the relation between television news exposure and concern about crime is the pervasive exposure to violent crime stories on this news medium. This exposure overshadows neighborhood differences in violence and makes crime a citywide issue of high importance for the political agenda.

The Social-Comparison Hypothesis

The results provided some support for a social-comparison mechanism through which national crime coverage may actually reduce personal risk perceptions. The social-comparison hypothesis predicted that the increase in fear associated with the rise of national television crime coverage should be concentrated in areas with lower levels of local crime or of habitual crime coverage. This prediction was supported in three out of four tests in the GSS. Suburban areas with lower rates of local crime were more likely to respond to national news coverage than areas with higher rates of local crime (Table 1). Indeed, as the social-comparison hypothesis predicted, these latter areas exhibited significant declines in fear.

Nevertheless, the central cities did not exhibit a differential response to national news coverage. Residents of cities across all levels of local crime rates reported increased fear of crime. The absence of a social-comparison effect in the cities may reflect the possibility that the national surge in crime coverage in 1993 focused on urban crime that increased perceptions of risk more dramatically in the cities than in other areas. If this occurred even in areas where initial levels of crime were high, city residents could still exhibit a rise in personal fear of crime.

Both tests of the social-comparison hypothesis using local television coverage of crime as a predictor of fear of crime supported the social-comparison hypothesis (Figure 1). For regions with already high local coverage of crime, the national surge in coverage did not increase fear. However, areas with lower coverage of crime did exhibit increased fear of crime. In suburban areas, fear of crime in 1993–1994 actually exceeded the already high levels reported in areas with chronically higher local coverage (50% vs. 43%). Thus, it is unlikely that a ceiling effect lim-

ited the increases that could occur in already high fear areas. In areas with already high coverage of local crime, increases in national coverage may have resulted in little change in the fear that residents felt even when they compared themselves to the rising national norm.

Other Explanations of the Public's Fear of Crime

The alternative hypothesis that local or national crime rates are responsible for the viewing-fear relationship is an unlikely explanation of either the NRS or GSS results. To explain the NRS findings would require that respondents who reported greater perceptions of personal risk and greater exposure to local news also lived in regions with higher crime rates, an unlikely occurrence in the sampling scheme we used. The GSS findings indicate that, although local robbery rates were related to fear of crime, fear still exhibited variation in response to chronic and dynamic patterns of crime coverage on local and national television news. Furthermore, the increased fear of crime that occurred during the 1993–1994 period was not coincident with a corresponding increase in national crime rates (Rennison, 2000). Finally, the Philadelphia study indicated that neighborhood crime rates could not explain the relation between television news viewing and concerns about crime. It would appear that fear of crime is responsive to both local and national coverage independently of actual crime rates, a conclusion that is consistent with earlier studies of crime reporting in the press (e.g., Graber, 1980) and its effects on readers (Heath, 1984; Liska & Baccaglioni, 1990).

Although increased fear of crime accompanied the national surge in crime reporting, we cannot rule out the possibility that other influences precipitated either or both of these changes. We held constant individual differences that might be related to changes in fear, and national crime rates were either declining or not increasing in 1993. Fear of crime at the aggregate level has moved within a narrow window in the GSS ranging between 39 and 45% since the 1970s. The last time it hit the level it reached in 1993–1994 was in 1981. We do not know if news coverage was related to that surge in fear. However, it would appear that crime reporting played at least some role in the most recent surge even if we cannot rule out other sources as well.

Another likely influence on the public was the response by politicians (Scheingold, 1995). During the increase in national television crime coverage, crime as a societal problem rose to unprecedented levels of mention in national polls (Gallup, 1994). This ground swell was accompanied by the passage of a large national anticrime measure (Omnibus Crime Act of 1994). This national political response probably reflected more than the mere rise in the public's concern about crime. It may also have reflected the reality that other problems, such as the Cold War, had lost immediacy and that harsher treatment of criminals, through greater incarceration and an expanded prison system, is a ready response (Scheingold, 1995). Whether this reaction reflects an effective response to crime or not, the news media's role in supporting this political response is not unlike that of other examples of media-driven agenda setting (McCombs et al., 2000).

We interpret the relation between local television viewing and fear of crime as particularly consistent with cultivation theory. This theory focuses on the stable

cultural and economic incentives that encourage violent programming on television. We find support for the theory primarily in the realm of news reporting, especially at the local level. The economic incentives for crime reporting are clear (Hamilton, 1998; McManus, 1994), and the news holes devoted to it in cities across the country are large (Hamilton, 1998; Klite et al., 1995, 1997). The focus of local television news on criminal violence may condition audiences to focus on crime and to ignore other problems that are as important but translate less readily to the television news format.

Crime coverage may not only condition viewers' fears of victimization but may also affect perceptions of places where crime is likely to occur and the persons stereotyped as typical perpetrators. A recent study in Baltimore suggests that local television crime coverage is related to a heightened sense of fear of the central city and that this fear translates into reduced travel there (Miller, 1998). Fear of crime may also engender increased suspicion of neighbors and of African Americans and other non-White residents who are featured disproportionately in crime coverage as perpetrators of violence (Romer, Jamieson, & DeCoteau, 1998). These unintended effects of crime coverage could also contribute to the decline in community cohesion and to tensions between racial and ethnic groups (Romer et al., 1998).

References

- Aday, S., & Jamieson, K. H. (1998). *A comparison of news media coverage of local news in four cities*. Philadelphia: Annenberg Public Policy Center.
- Benson, C., Ericson, M., & McCoy, C. R. (1997, October 24). Crime in Philadelphia. *Philadelphia Inquirer*, p. A26.
- Doob, A. N., & Macdonald, G. E. (1979). Television viewing and fear of victimization: Is the relationship causal? *Journal of Personality and Social Psychology*, 37, 170–179.
- Fox, J. A., & Zawitz, M. W. (2000). *Homicide trends in the United States: 1998 Update*. Washington, DC: U.S. Department of Justice.
- Gallup, G. H. (1994). *The Gallup Poll monthly report (Report no. 285)*. Princeton, NJ: Gallup Poll.
- Gerbner, G., & Gross, L. (1976). Living with television: The violence profile. *Journal of Communication*, 26(2), 173–199.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1994). Growing up with television: The cultivation perspective. In J. Bryant & D. Zillman (Eds.), *Media effects: Advances in theory and research* (pp. 17–41). Hillsdale, NJ: Erlbaum.
- Gerbner, G., Gross, L., Signorielli, N., Morgan, M., & Jackson-Beeck, M. (1979). The demonstration of power: Violence profile No. 10. *Journal of Communication*, 29, 177–196.
- Graber, D. (1980). *Crime news and the public*. New York: Praeger.
- Hamilton, J. T. (1998). *Channeling violence: The economic market for violent television programming*. Princeton, NJ: Princeton University Press.
- Heath, L. (1984). Impact of newspaper crime reports on fear of crime: Multimethodological investigation. *Journal of Personality and Social Psychology*, 47, 263–276.
- Hirsch, P. (1981). On not learning from one's mistakes: A reanalysis of Gerbner et al.'s findings on cultivation analysis, part II. *Communication Research*, 8, 3–37.

- Hughes, M. (1980). The fruits of cultivation analysis: A re-examination of the effects of television watching on fear of victimization, alienation, and the approval of violence. *Public Opinion Quarterly*, 44, 287–302.
- Iyengar, S., & Kinder, D. R. (1987). *News that matters: Television and American opinion*. Chicago: University of Chicago.
- Klite, P., Bardwell, R. A., & Salzman, J. (1995). *A day in the life of local TV news in America*. Denver, CO: Rocky Mountain Media Watch.
- Klite, P., Bardwell, R. A., & Salzman, J. (1997). Local TV news: Getting away with murder. *Harvard International Journal of Press/Politics*, 2, 102–112.
- Lichter, R., & Lichter, L. (1997). *Network news in the nineties*. Washington, DC: Center for Media and Public Affairs.
- Liska, A. E., & Baccaglioni, W. (1990). Feeling safe by comparison: Crime in the newspapers. *Social Problems*, 37, 360–374.
- Liska, A. E., Lawrence, J. J., & Sanchirico, S. (1982). Fear of crime as a social fact. *Social Forces*, 60, 760–770.
- McCombs, M., Lopez-Escobar, E., & Llamas, J. P. (2000). Setting the agenda of attributes in the 1996 Spanish general election. *Journal of Communication*, 77–92.
- McManus, J. H. (1994). *Market driven journalism: Let the citizen beware?* Thousand Oaks, CA: Sage Press.
- Miller, M. C. (1998). *It's a crime: The economic impact of local TV news in Baltimore*. New York: New York University School of Media Studies.
- Morgan, M., & Shanahan, J. (1997). Two decades of cultivation research: An appraisal and meta-analysis. *Communication yearbook*, 20, 1–45.
- Patterson, T. E. (2000). *Doing well and doing good: How soft news and critical journalism are shrinking the news audience and weakening democracy—and what news organizations can do about it*. Cambridge, MA: Joan Shorenstein Center.
- Potter, J. W., & Chang, I. C. (1990). Television exposure measures and the cultivation hypothesis. *Journal of Broadcasting & Electronic Media*, 34, 335–350.
- Rennison, C. M. (2000). *Criminal victimization 1999: Changes 1998–99 with trends 1993–1999*. Washington, DC: U.S. Department of Justice.
- Romer, D., Jamieson, K. H., & DeCoteau, N. (1998). The treatment of persons of color in local television news: Ethnic blame discourse or realistic group conflict. *Communication Research*, 25, 286–305.
- Rubin, A. M., Perse, E. M., & Taylor, D. S. (1988). A methodological investigation of cultivation. *Communication Research*, 15, 107–134.
- Sacco, V. F. (1995). Media constructions of crime. *Annals of the American Academy of Political and Social Sciences*, 539, 141–154.
- Scheingold, S. A. (1995). Politics, public policy, and street crime. *Annals of the American Academy of Political and Social Sciences*, 539, 155–168.
- Surette, R. (1992). *Media, crime, and criminal justice*. Pacific Grove, CA: Brooks/Cole.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5, 207–232.
- Tyler, T. R., & Cook, F. L. (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.