

PREDICTING VIOLENCE: A CROSS-NATIONAL STUDY OF UNITED STATES AND MEXICAN YOUNG ADULTS

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In this study, young adults from the United States ($n = 198$) and Mexico ($n = 223$) were surveyed regarding their violent behaviors over the past year, as well as variables related to trait aggression, empathy, individualist/collectivist views, and interest in viewing and consumption of violent media. Mexican participants reported having committed a modestly higher number of violent acts in the past 12 months than U.S. participants. Somewhat consistent with the catalyst model of antisocial behavior (Ferguson et al., 2008), for both U.S. and Mexican participants, male gender and trait aggression were the two primary predictors of violent behavior, with one exception. For Mexican participants, empathy significantly predicted (less) violent behavior. Curiously, higher levels of empathy were not associated with a reduction in violent acts among U.S. participants. Moreover, for both groups of participants, interest and pleasure in viewing violent media contributed to the prediction of violence, but exposure to (i.e., actual consumption of) violent media did not. Overall, results suggest that the array of variables predictive of violent behavior is more similar than dissimilar across national samples. Implications for the findings are provided.

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Increasingly, Western culture and elsewhere have begun to focus on the harmful role of violence in people's lives including, but not limited to, maltreatment of children, violence toward women, domestic violence, ethnic conflict and genocide, and human trafficking. Yet, attitudes toward violence may vary across cultures as well as across segments within a given culture. Although global messages increasingly focus on the prevention of violent acts (e.g., World Health Organization, 2002), differing cultures may still perceive violence in differing contexts and more positive or negative relative to other cultures. Moreover, the seriousness of violence may be perceived differently across cultures and therefore reacted to in different ways (Arscott-Mills, 2001; Garcia-Moreno, 2000).

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For example, adults born in non-English-speaking countries tend to have somewhat more tolerant attitudes toward violence, particularly violence toward women, than those born in English-speaking countries (Flood & Pease, 2009). Individuals born in North African or Middle Eastern countries may be particularly prone to tolerant attitudes toward violence and violence toward women in particular (National Crime Prevention, 2001). Nayak, Byrne, Martin, and Abraham (2003) found that citizens of the United States held less tolerant views of domestic violence and sexual assault of women than citizens of Kuwait (tolerance levels among Japanese and Indians fell in between those of the U.S. and Kuwait). Similarly, compared to U.S. adults, citizens of Trinidad have been found to have higher tolerance of domestic violence and be less willing to intervene (Griffith, Negy, & Chadee, 2006). Within the United States, Asian Americans have been found to be modestly more tolerant of violence toward women than Whites (Lee, Pomeroy, Yoo, & Rheinboldt, 2005). Further, Whites, Latinos/as, and African Americans appear to differ in both their attitudes toward domestic violence (Ferguson & Negy, 2004; Locke & Richman, 1997) and the prevalence of domestic violence (Anderson, Cooper, & Okamura, 1997; Briere, 1987; Gelles, 1993).

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It should be noted that examining these cultural differences in violence tolerance runs the risk of reinforcing prejudiced stereotypes (Flood & Pease, 2009). Because of that, they should be discussed with some care. Moreover, it should be acknowledged as well that, although cultural attitudes toward violence may vary from one culture to another, research suggests that victim perspectives and level of victim psychological trauma commonly do not vary across cultures (Phillips, Rosen, Zoellner, & Feeny, 2006).

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Diverse cultural attitudes about the seriousness of physical violence may be explained by the sociocultural theory of violence first proposed by Wolfgang and Ferracuti (1967). According to this theory, violence against others reflects attitudes shared by members at the larger, societal level, and those attitudes influence interpersonal interactions in multiple social spheres. The sociocultural theory of violence suggests that culture—in various and complex ways—shape individuals' attitudes toward the relative acceptability of violent behavior. The sociocultural theory of violence is similar to Bandura's social learning theory that attempts to explain how aggression is learned (Bandura, 1973; Bandura, Ross, & Ross, 1961). Specifically, Bandura believed that individuals imitate violent or aggressive behaviors based on their observation of models of aggression within their families, subculture, and even the media to which they are exposed.

The sociocultural influence on the commission of violence against others potentially only accounts for part of the genesis of violent behavior. Personality theory holds that intrinsic personality traits can have a powerful influence on human behavior in ways that moderate distal environmental or biological influences, or act independently of external forces (Bandura, 2000). For example, trait aggression has been found to be a consistent predictor of violent behavior (Ferguson, San Miguel, & Hartley, 2009; Kumari et al., 2005; Sreenivasan, Weinberger, & Garrick, 2003). Also, personality traits that presumably are influenced by cultural norms, such as individualism—collectivism, may promote or inhibit violence in different scenarios or settings. Individualistic cultures may promote individual aggressiveness, having relatively fewer group-oriented restraints on aggressive behavior. By contrast, collectivistic cultures may deemphasize individual rights, with the potential for culturally sanctioned violence against individuals who deviate from cultural norms (Lawoko, 2008).

All considered, the catalyst model of antisocial behavior (Ferguson et al., 2008) suggests that personality traits—including traits presumably influenced by broader social contexts—occupy a central role in moderating environmental and genetic effects and eventually lead to violent behavior. The catalyst model incorporates elements of social learning, personality, and cultural/evolutionary theory, thereby proposing a diathesis-stress model of violence that recognizes variance in individual proclivities to commit violence.

This model has been well supported in both adults (Ferguson et al., 2008; Markey & Scherer, 2009) and children (Ferguson et al., 2009).

To summarize, increasing attention has focused on multivariate analyses of multiple risk factors. However, few researchers to date have endeavored to examine a combination of these factors into a single analysis. Our research attempts to address this void in the literature. Moreover, the current investigation represents a cross-national comparison of United States and Mexican young adults on multiple variables related to committing acts of violence. The cross-cultural nature of this study provides a unique opportunity to determine the extent to which critical variables linked to violence in one culture (in this case, the U.S.) may be similar to critical variables linked to violence in another culture (e.g., Mexico; Arnett, 2008; Funder, 1997).

We included two important constructs in our study to determine their role in the commission of violent acts. They were empathy and individualism-collectivism. Empathy is the ability to emotionally and cognitively imagine how others think or feel (Davis, 1983). Previous studies have linked the lack of empathy to a propensity to behave aggressively (Bjorkvist, Osterman, & Kaukiainen, 2000; Miller & Eisenberg, 1988; Penney & Moretti, 2007). Regarding individualism-collectivism, Mexican culture is presumed to be a collectivistic culture (Hofstede, 2001). In collectivistic cultures, children are socialized to be cooperative and to direct their concerns for the welfare of the family and extended families. By contrast, the United States is presumed to be an individualistic culture. In individualist cultures, children are socialized to be competitive and to focus on individual achievement and well-being. These two ends of a continuum (individualism-collectivism) likely are stereotypes, with neither national group (U.S. or Mexican residents) being completely individualistic or collectivistic. Nonetheless, if the two national groups vary on this dimension, they may vary in their ability to empathize with others, because having concern for others' well-being theoretically is more in line with a collectivistic approach to life.

PRIMARY RESEARCH QUESTIONS

1. Do United States and Mexican young adults differ in their reported history of committing aggressive/violent acts?

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2. Are the set of variables most predictive of violent behavior similar across United States and Mexican young adults?

Because of the exploratory nature of this study involving two distinct national groups, no formal hypotheses were proposed or tested.

METHOD

Participants

Participants were young adults ($N = 421$) attending relatively small, private liberal arts colleges located in a medium-sized metropolitan region of the United States and Mexico, respectively. The United States sample ($n = 198$) consisted of 67 men and 131 women, with ages ranging from 18 to 49 (M age in years = 19.75; $SD = 2.47$). Based on self-reports, there were 162 Whites, 16 Hispanics or Latinos/as, 5 African Americans, 8 Asian Americans, and 9 who reported as Other. The Mexican sample ($n = 223$) consisted of 88 men and 135 women, with ages ranging from 18 to 54 (M age in years = 21.11; $SD = 3.05$). All Mexican participants self-reported their ethnicity to be of Mexican origin.

Instruments

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Demographic Information. On a sheet of paper, all participants reported their age, gender, ethnicity, religious affiliation, and class standing (1 = freshman, 2 = sophomore, 3 = junior, 4 = senior). They

also were asked to report each parent's educational level, which served as an index of socioeconomic status.

Interest in Viewing Violent Media. To assess interest and pleasure at viewing violent media, all participants completed the Pleasure at Viewing Violent Media scale (PVVM). This 10-item questionnaire was designed by the present authors to assess respondents' interest and pleasure in viewing cinema movies that contain violent images. The PVVM uses as a 5-point Likert-type scale response format, with response options ranging from strongly disagree to strongly agree. Higher scores reflect more pleasure and interest in viewing violent media. A sample item is "I enjoy watching movies with lots of action and violence." The items were divided with respect to being presented in an affirmative or a negative direction to control for response set biases. In order to assess violent media exposure, at the end of this scale, a multiple choice question was included that assessed the number of violent movies participants view per week. Response options were none, one per week, two per week, three per week, four per week, five or more per week. Based on the present sample of participants, the PVVM was found to have a Cronbach reliability alpha of .84 (English version) and .84 (Spanish version). As preliminary evidence for the scale's construct validity, the scale correlated with trait aggression and empathy in expected directions for the United States sample ($r_s = .34$ and $-.34$, $p_s < .01$) and the Mexican sample ($r_s = .31$ and $-.42$, $p_s < .01$), respectively.

Individualism-Collectivism. To measure participants' adherence or endorsement to values believed to represent the constructs of individualism and collectivism, participants completed the 16 items that Triandis and Gelfand (1998) found to have high factor loadings (equal to or greater than .40) from their original 32 item instrument (Singelis, Triandis, Bhawuk, & Gelfand, 1995). Eight of the items are statements believed to reflect a preoccupation for one's own success and life pursuits (individualism), whereas the remaining 8 statements are believed to reflect a concern for the well-being of one's family or larger social community (collectivism). Items are responded to using a 9-point Likert-type scale, with response options ranging from Agree to Disagree. Triandis and Gelfand have found that the English version of the scales had adequate construct validity (e.g., correlating in expected directions with competitiveness, interdependence, etc.). Based on the present sample of par-

ticipants, the Individualism subscale was found to have a Cronbach reliability alpha of .67 (English version) and .56 (Spanish version). The Collectivism subscale was found to have a Cronbach reliability alpha of .72 (English version) and .61 (Spanish version). We note that these reliability estimates are considered marginal to unacceptable against traditional psychometric standards, particularly the Spanish versions.

Empathy. To assess empathy, all participants completed the Interpersonal Reactivity Index (IRI; Davis, 1980). For this study, only the 7 items forming the Empathy-Concern (EC) subscale were used because they were deemed to be most relevant to this study's focus. The EC subscale measures the tendency to experience feelings of warmth, compassion, and concern for other people. Respondents report their endorsement of the statements using a 5-point Likert-type scale, ranging from Does Not Describe Me Well to Describes Me Very Well. An overall empathy score is obtained by adding responses to the items, with higher scores reflecting higher levels of empathy. Davis found that the English version of this scale had adequate construct validity (e.g., correlating in expected directions with social competence, perspective-taking, and other scales measuring the construct of empathy). Based on the present sample of participants, the EC was found to have a Cronbach reliability alpha of .77 (English version) and .65 (Spanish version).

Aggressiveness. To measure aggressiveness, participants completed the Aggression Questionnaire-Short Form (AQ-sf; Buss & Warren, 2000). The shortened version of AQ consists of the first 15 items of the original 34-item version, and was designed to measure the degree to which respondents endorse statements about their levels of aggression. Items are responded to using a 5-point Likert-type scale, ranging from Not At All Like Me to Completely Like Me, with higher scores indicating more aggressiveness. An example item is, "At times I get very angry for no good reason." Buss and Warren have found that the English version of this scale had adequate construct validity (e.g., correlating in expected directions with anger, hostility, and other scales measuring diverse dimensions of aggression). Based on the present sample of participants, the AQ-sf was found to have a Cronbach reliability alpha of .85 (English version) and .87 (Spanish version).

History of Criminal Acts. To measure the degree to which participants have committed violent crimes in the past, they completed the Violent Criminal Behavior Measurement (VCBM) of self-reported violent crime that was obtained from the National Youth Survey (Elliot, Huizinga, & Ageton, 1985). The VCBM is a 35-item self-report measure of violent and nonviolent crimes in which individuals are asked to estimate how many times during the past 12 months they have committed those behaviors. For this study, instead of inquiring about the past 12 months, participants were asked to estimate their past acts over their life time out of concern for a low base rate for recent commission of crimes in a population of adult college students. Also, only the 12 items that ask about violent crimes were included in this study because they were most related to this study's focus.

PROCEDURE

Prior to commencement of data collection, this study was reviewed and approved by the institutional review board at each university where this study took place. The study was made available to willing student participants in multiple psychology courses. Participants were informed of the general purpose of the study and were invited to participate. All students present in class agreed to complete the set of questionnaires. After reading and signing an informed consent sheet, participants completed the questionnaires during class time. At least one of the principal researchers was present and available to answer any questions by participants. Although all participation was voluntary, students received extra credit in their respective courses in exchange for participation.

Power Analysis. G*Power was used to analyze the power of our data and design to detect small effects. With our sample we could detect effects in the range of $r = .10$. Effects lower than this are generally considered trivial (Cohen, 1992). Thus we are confident that Type II error issues are minimal.

TABLE 1. Means, Standard Deviations, and Effect Sizes for Study Variables for United States and Mexican Adults

Variable	U.S. Adults	Mexican Adults	Cohen's <i>d</i> ^a
Trait Aggression Mean (SD)	30.36 (9.46)	30.91 (10.70)	.05
Empathy	27.44 (4.46)	27.04 (4.28)	.09
Individualism	6.42 (1.01)	6.77 (.96)*	.36
Collectivism	6.83 (.92)	6.91 (.97)	.08
Interest in Violent Media	32.81 (6.19)	26.51 (7.22)***	.94
Media Violence Exposure	1.98 (.87)	2.11 (.81)	.15
Number of Violence Acts	1.81 (4.88)	2.44 (4.80)**	.13

Note. ^aCohen's *d* effect size estimate.

* $p < .05$; ** $p < .01$; *** $p < .001$

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RESULTS

COMPARISON OF VIOLENT BEHAVIOR BETWEEN UNITED STATES AND MEXICAN YOUNG ADULTS

To examine directly differences in commission of violence between United States and Mexican young adults, Mann-Whitney U comparisons were performed on the data. Mann-Whitney U comparisons were conducted because violence commission is nonnormative in distribution. Results from the Mann-Whitney U revealed a significant difference between United States and Mexican adults ($U = 18464.5$, $Z = -3.18$, $p < .01$). United States citizens reported engaging in fewer violent acts ($M = 1.81$, $SD = 4.88$) than did Mexican citizens ($M = 2.44$, $SD = 4.80$). A significant effect also was found for gender ($U = 11198.0$, $Z = -8.57$, $p < .001$) with men engaging in more violent acts ($M = 4.00$, $SD = 6.47$) than women ($M = 1.06$, $SD = 3.11$).

These two variables—nationality and gender—were analyzed in combination using a 2×2 nonparametric model with Wald's Chi-Square. Results indicated main effects for nationality ($\chi^2 = 11.16$, $p < .001$, $r = .16$) and gender ($\chi^2 = 66.30$, $p < .001$, $r = .40$) in directions identical to the results of the Mann-Whitney U analyses. Due to the low power of the nonparametric comparison, a nationality by gender interaction approached ($\chi^2 = 3.41$, $p < .06$, $r = .09$), but did not achieve significance ($p > .05$).

TABLE 2. Intercorrelations between Study Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.
1. Male Gender	—	.26**	-.31**	.12	.04	.51**	.25**	.40**
2. Trait Aggression	.26**	—	.10	.32**	-.02	.31**	.29**	.28**
3. Empathy	.25**	-.12	—	.08	.35**	-.42**	-.11	-.29**
4. Individualism	.25**	.39**	-.17**	—	.26**	.14*	-.06	.06
5. Collectivism	-.03	-.21**	.31**	.15*	—	-.12	-.17**	-.10**
6. Interest in Viewing Violent Media	.52**	.34**	-.34**	.38**	-.05	—	.43**	.38**
7. Media Violence Exposure	.43**	.36**	-.19**	.26**	.01	.54**	—	.29**
8. Violent Acts	.17**	.42**	-.11	.26**	-.03	.31**	.15*	—

Note. Numbers above diagonal for Mexican sample; numbers below diagonal for United States sample.
 * $p < .05$; ** $p < .01$.

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PREDICTING THE COMMISSION OF VIOLENCE

Table 1 shows the means, standard deviations, and effect sizes of study variables as a function of nationality. Table 2 shows the intercorrelations between study variables for both national groups.

To examine the predictive ability of study variables on the commission of violence, we conducted a logistic multiple regression on the data for the combined Mexican and United States sample. The categorical commission of violence variable (based on whether respondents had reported any violence perpetration) was used as the dependent variable. Country of origin (U.S. or Mexico) and gender were entered on the first step along with trait aggression, empathy, and cultural orientation (individualism and collectivism). Interest in viewing violent media and exposure to violent media were entered at the second step. Interaction variables between country of origin and trait aggression and empathy, collectivism and individualism and interest in viewing violent media and actual violent media exposure were entered on the final step. The order of variables entered in the equation was designed to move from proximal, individual level variables to distal, social, and cultural variables. Variables were centered prior to creating interaction terms to prevent multicollinearity. The interaction effects in the current regression and their interpretation were conducted in accordance with the recommendations of Jaccard, Turrissi, and Wan (2003).

TABLE 3. Logistic Multiple Regression for Violent Behavior with Full Sample ($N = 421$)

Variable	B	Wald	Odds Ratio	Significance
Constant	-11.17	5.56		.03*
Country of Origin	1.10	13.77	2.99	.001*
Male Gender	1.17	18.28	3.22	.001*
Trait Aggression	.09	40.04	1.10	.001*
Empathy	-.02	0.50	.99	.48
Individualism	-.04	.08	0.97	.79
Collectivism	.13	.84	.83	.23
Step 1: $\chi^2(6) = 133.44, p < .001, R^2_{Nagelkerke} = .36,$				
Interest in Violent Media	.06	5.65	1.06	.02*
Media Violence Exposure	-.19	1.47	.77	.62
Step 2: $\chi^2(2) = 5.90, p < .05, R^2_{Nagelkerke} = .38$				
Step 3: $\chi^2(6) = 9.12, p > .05, R^2 = .40,$ individual coefficients not reported				

Note. Odds ratios and other figures represent outcomes for the final significant model with steps 1 and 2. *denotes statistical significance

For the combined sample, the model described above produced a statistically-significant predictive relationship ($\chi^2 = 139.34, p < .01, R^2_{Nagelkerke} = .38$) through to the second step. The second step added significantly to the overall model ($\chi^2[\text{step}] = 5.90, p < .05$) but the third step, including interaction terms did not add significantly to the model ($\chi^2[\text{step}] = 9.12, p = .17$). As such the interaction terms are not discussed further. Violent criminal behavior was predicted by Mexican origin ($OR = 2.99, p < .001$), male gender ($OR = 3.22, p < .001$), trait aggression ($OR = 1.10, p < .001$), and interest in viewing violent media ($B = 1.06, p < .05$) but not actual exposure to media violence. These results are presented in Table 3.

DISCUSSION

Results from the current study provide several important findings. First, data obtained from our sample of United States and Mexican young adults suggest that individuals from Mexico—presumably a relatively collectivist culture—may engage in somewhat more violent acts than individuals from the United States—presumably a

relatively individualistic culture. This was particularly true among men, who commit far more violent acts than women. This finding is consistent with other literature that generally has indicated that violent acts are more prevalent in collectivist cultures than in individualistic cultures (e.g., Lawoko, 2008; Nesdale & Naito, 2005; Yoshio-
ka, DiNoia, & Ullah, 2001). Findings of this nature are correlational, thus it is difficult to attribute violence propensity to the collectivist nature of culture per se. It may be that collectivist cultures place less value on individuals than do individualistic cultures, making violence toward individuals more acceptable. For instance, in some collectivist cultures, violence may be permitted when the honor of the family, tribe, or other cultural unit is at stake. For instance, honor killings of women who have strayed from their families or husbands are more prevalent in cultures in which collectivism is endorsed (Sev'er & Yurdakul, 2001). At the same time, collectivist cultures tend to be overrepresented among less-developed nations in which it may be difficult to separate the influence of culture apart from the effects of poverty and lack of centralized, noncorrupt policing agencies. Some collectivist cultures, such as Japan, with a stable economy, relatively speaking, are well known to be low-violence (Garcia-Moreno, Heise, Jansen, Ellsberg, & Watts, 2005). Similarly, it is important to note that it cannot be concluded that the relative collectivism of Mexico in relation to the United States is responsible for any differences in violence. At present, Mexico is experiencing a considerable violent crime wave related to drug trade and relatively poor economic and political conditions vis-à-vis the United States. As a result, it should not be assumed that the experiences of Mexico can be generalized to all collectivist cultures. Indeed, when considered alongside other predictor variables, individualistic/collectivistic orientation did not predict violent crime commission.

Results from our study generally are consistent with the catalyst model of antisocial behavior insofar as they suggest that internal variables including male gender, trait aggression, and personal interest and pleasure in viewing violent media (but not actual exposure) are particularly critical to understanding violent acts in relation to more distal influences such as exposure to violent media. This suggests that the standard social science model of violence as something that is learned, and learned easily from even distal sources such as violent media, warrant additional scrutiny. Our

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results suggest that violence may be more intrinsic than has been previously thought. Individuals who are violent typically are males with a personality temperament prone to aggressiveness and who experience lower empathy toward others (Bjorkvist et al., 2000; Miller & Eisenberg, 1988; Penney & Moretti, 2007). This is not to say that external influences are without value. As noted, we observed that culture of origin was predictive of violent acts. However the influence of external influences may be related to variables that have direct salient and practical influence on the day-to-day lives of individuals such as cultural and family variables, rather than variables related to more distal influences such as media.

Generally, however, although our results indicated differences in the prevalence of violence across cultures, our results suggest that the etiology of violent behavior may be more similar across cultures than different. Although the amount of strain a culture is under may influence the prevalence of violence (e.g., the economic conditions and drug climate in Mexico), cultural values such as individualism/collectivism may not influence violence directly or to any appreciable degree. Highly trait-aggressive males in both cultures are most at risk for violent behavior.

Several limitations of the current research bear noting. Our sample of participants consisted of university students attending private colleges. In light of the relatively low numbers of violent acts reported within the last 12 months of data collection, these findings may not generalize to community samples. Also, our findings were derived from self-report data; consequently, it is difficult to know with certainty the accuracy of the information provided by participants, particularly about a socially unacceptable behavior such as the commission of violence. Finally, some of the scales used in this study yielded marginally acceptable reliability estimates on the current sample of participants and on one scale (individualism), yielded an unacceptable reliability estimate. This problem was most noted for the translated Spanish items. When items lose, to unknown degrees, their meaning in a translation, the items tend to reduce reliability estimates (Sanchez-Johnsen & Cuellar, 2008). Thus, some of the findings involving such scales (particularly individualism) must be viewed with great caution.

CONCLUSION AND IMPLICATIONS OF FINDINGS

In conclusion, our study was developed to explore cultural similarities and differences in violent behavior between United States and Mexican young adults. The cross-national nature of this study provided an opportunity to obtain a broader perspective on the prevalence and correlates of acts of violence by comparing two similar cohorts of young adults but from distinct cultural backgrounds. In regards to violence proclivity, overall, we found that the two cultures of United States and Mexico differed in regards to the prevalence of violence, but that similar risk factors predicted violent behavior in both samples. We believe our findings draw needed attention to this important social problem and add to the discussion on influences of violence, including potential cultural influences.

Important risk factors for violence included male gender and the personality construct of aggressiveness as well as interest and pleasure in viewing violent media. However, actual exposure to media violence did not predict actual violent behavior. Although it is common for advocates of violence prevention to focus on distal external risk factors for violence, our results suggest that distal external factors, such as media, probably are weak predictors. Although focusing on distal external risk factors for violence may fit well with existing social science paradigms, prevention efforts focused on such distal external factors such as media may prove to be of little value.

By contrast, a focus on internal factors, including control of aggressive drives, anger management, and mental health may ultimately be more productive. We do note that the catalyst model of antisocial behavior suggests that these internal factors may be exacerbated by external factors that cause stress. As such, elements such as child abuse or family dysfunction may be important external factors to consider, whereas distal features, such as media, probably are not. Given that aggressive personality factors seem prominent in the initiation of violence, prevention efforts aimed at aggressive youth are likely to bear the most fruit in regards to the prevention of violence. Taken together, targeting at-risk families for family violence and providing nonaggressive role models for children at risk for developing aggressive personalities may have a positive influence on violence prevention.

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