

Violence and Sex as Advertising Strategies in Television Commercials

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Abstract. Despite several studies investigating the impact of sex and violence in television on consumer behavior and memory for products in commercials, results remain inconsistent and debated. The purpose of the current study was to examine the effects of television violence and sex on memory for commercials and willingness to buy products. Two hundred twelve young adults were assigned to watch either a sexual, violent, combined sexual and violent or neutral television show. Within each show were embedded 12 commercials, four violent, four sexual, and four neutral. Results indicated that violent or sexual content of the television show did not impair memory for commercials or willingness to buy products, and that sexual or violent content in the commercials themselves increased memory for those commercials. Implications for the current study are that violent or sexual shows may adequately function in attracting viewers' attention, with sexual and violent content in the commercials themselves improving viewers memory for products. Use of violent or sexual content in commercials may thus be useful in advertising for brand recall.

Keywords: television, mass media, consumer behavior, advertising, marketing

The ubiquity of sexual and violent content in television programs available to worldwide audiences has produced a great deal of controversy and concern among both the public and scientific communities. Several recent commercials with sexual or violent themes have become the center of controversy. For instance, the 2005 GoDaddy's US Superbowl add featured a scantily clad woman giving testimony before television censorship hearings and (in reference to Janet Jackson's breast baring incident during a previous Superbowl) nearly showing her breasts during a wardrobe malfunction. FOX news decided against airing this advertisement a second time during the Superbowl. Similarly, in the United States, adds for the release of the Grand Theft Auto IV game were taken down in 2008 from public transportation terminals and bus stops in some cities due to complaints about the violent content portrayed. Some viral adds skip television altogether, going straight to the Internet. One such example is the "she spilled my coffee" add, purportedly a Canadian public service announcement regarding domestic violence. During the add a male customer violently assaults a female waitress for the coffee spill. Recent research (Bushman, 2005; Fried & Johanson, 2008) has examined whether sex and violence on television is effective in selling products, although it remains unclear that this issue has been fully addressed. The present article seeks to illuminate the effects of sex and violence on television, including violent and sexual content in commercials and their ability to promote products in advertisements.

Sex and Violence on Television

Depictions of violent or sexual acts on television continue to be a common and controversial phenomenon. The National Television Violence Study (1998) suggested that violent content can be found in 60% of television media. A similar study by the Kaiser Family Foundation (2006) found that 70% of television shows included some sexual content. In fairness, it should be noted that these figures are for any content in a show. A show with only a few seconds of violence or sex across an entire 30- or 60-min episode would still be rated in these figures. This ubiquity in television programs has led to concerns among scientists and laypersons that such content may produce deleterious effects on adult and child viewers. Despite decades of research, this proposition remains controversial and debated, with some researchers suggesting that a consensus has been reached (e.g., Anderson et al., 2003; Boxer, Huesmann, Bushman, O'Brien, & Mocerri, 2008; Huesmann & Taylor, 2003; Malamuth, Addison, & Koss, 2000), while others assert that the evidence is weak and often misleadingly presented with authors glossing over inconsistent or negative findings in favor of supporting their hypotheses (Ferguson & Kilburn, 2009; Freedman, 2002; Grimes, Anderson, & Bergen, 2008; Olson, 2004; Savage, 2004; Savage & Yancey, 2008; Sherry, 2007).

Regarding sex on television, the possible pernicious effects upon viewers that are of concern to researchers are

76 somewhat more diffuse. Such concerns range from the pro-
77 motion of negative attitudes toward love and sex (Zillman,
78 2000) to the promotion of rape myths and negative attitudes
79 toward women (Allen, Emmers, Gebhardt, & Giery, 1995).
80 Meta-analyses have generally found few correlational results
81 between viewing erotica and negative outcomes, although
82 experimental studies tend to produce small effects (Allen
83 et al., 1995). It should be noted, however, that many of these
84 studies consider the potential deleterious effects of pornog-
85 raphy, not sexual television shows.

86 Does Sex and Violence in Television 87 Sell Advertised Products

88 As television stations in many nations subsist partially or
89 entirely on advertisement revenue (Bushman, 2005), the
90 “purpose” of television shows is to bring viewers’ attention
91 to the advertisements in order to assist in the sale of prod-
92 ucts. There are two possible routes in which shows can
93 assist in the sale of advertised products. The first is the direct
94 route, in which the content of the show itself (violent, sex-
95 ual, or neutral) promotes sale of products. Thus, if sex and
96 violence on television “sells,” then one would expect peo-
97 ple to be more likely to buy products, any products (irre-
98 spective of the advertisements) that are advertised during
99 the show. Television shows can also promote products via
100 an indirect route. Namely, television shows (violent, sexual,
101 or neutral) can simply fulfill the function of attracting view-
102 ers. Once viewers are in front of the television, it is up to the
103 content of the advertisements, not the television program
104 itself, to sell products. This indirect route has not yet been
105 examined through research. Some researchers (Bushman,
106 2005; Parents Television Council, 2003) have asserted that
107 sex and violent content on television is less popular overall
108 than “neutral” shows. This appears puzzling, however, as a
109 look at the top-20 Nielsen ratings for television shows for one
110 recent week (December 8–14, 2008) finds that, along with
111 sports, reality shows such as “Survivor” and news shows
112 (which themselves may contain content of a sexual or vio-
113 lent nature), programs with sexual or violent content domi-
114 nate the list (Nielsen Media Research, 2009). As such,
115 violent or sexual shows appear entirely capable of attracting
116 audiences and are perhaps superior in this regard to nonvio-
117 lent/nonsexual shows.

118 Bushman (2005) examined whether people were more or
119 less likely to wish to buy products after viewing programs
120 with sexual content, violent content, combined violent and
121 sexual content, or neutral content. Three hundred thirty-six
122 adults were randomized to watch a television program with
123 either sexual or violent content, both sexual and violent con-
124 tent, or neither. Embedded within programs were a series of
125 12 commercials for little-known products. Results indicated
126 that viewing programs with violent or sexual content
127 reduced viewers’ memory for the commercials contained
128 within the program and also reduced the likelihood that par-
129 ticipants would want to buy those brands. The author con-
130 cluded that violent and sexual programs did not “sell”
131 products. Bushman has found similar results in other studies
132 (Bushman, 1998, 2007; Bushman & Bonacci, 2002).

Bushman’s work has not always been replicated by other
researchers. Gunter, Furnham, and Pappa (2005) found
somewhat mixed results. Although violent programming
reduced memory for commercials without violent content,
violent programming increased memory for commercials
with violent content. In other words, it appears that matching
programs with commercials in terms of content may be ben-
eficial. Similarly Shen and Prinsen (1999) were unable to
replicate Bushman’s findings regarding the alleged impair-
ing effect for violent media on memory for products in com-
mercials. In more recent analyses Fried and Johanson (2008)
critiqued Bushman’s studies, claiming that his analyses did
not control well for other aspects of the included television
shows. When controlling for the content of the show itself
Fried and Johanson were unable to replicate Bushman’s
findings and found the sexual or violent content did not
impair participants’ memory for commercials. Fried and Jo-
hanson conclude that Bushman’s claims about the impairing
effects of television violence and sex are, at best, tenuous.

Attract/Remember: A Theoretical Perspective

One of the salient aspects of the work of Gunter and col-
leagues (Gunter et al., 2005; Gunter, Tohala, & Furnham,
2001) was finding memory for commercials is enhanced
when those commercials are matched in content with the
shows in which they are embedded. It is possible that the
content of the television show puts the viewer in a particular
cognitive mindset. Maintaining that mindset may help with
further memory for products, whereas mismatched products
quickly lose viewers’ interest and attention.

A theoretical framework for understanding the effective-
ness of television advertised is worth discussion. This paper
endorses a model of understanding advertising and market-
ing in which their influence is more informative than behav-
ior changing per se. In other words, advertising’s power is
not in making people buy things they do not already have
an inclination to buy, but rather in directing people toward
specific brands. The American Marketing Association
(AMA) defines marketing as

“Marketing is the activity, set of institutions, and pro-
cesses for creating, communicating, delivering, and
exchanging offerings that have value for customers, clients,
partners, and society at large” (AMA, 2007).

For example, a person is unlikely to buy cola unless they
have tasted it or something similar in the past and enjoyed it.
Advertising makes that cola enjoying person more inclined
to choose a brand they identify with such as Coke or Pepsi,
and eschew lesser known, potentially cheaper brands.
Advertising, then, does not create massive behavior change,
or shape people’s core personality or beliefs. It does nudge
people in the direction of particular product *brands* the result
of which can be windfall profits for those brands (see Kotler
& Keller, 2009). Even relatively new products must appeal
largely to existing consumer needs or wants.

From this understanding, the purpose of television shows
is, essentially, to attract viewers to a time and place from

189	which advertising messages can be received. Including excit-	in television shows will not impede memory perfor-	247
190	ing content, such as sexual or violent content, may be of	mance for commercials.	248
191	assistance in attracting viewers, particularly certain demo-	(2) The present study will also consider the effects of vio-	249
192	graphics of viewers such as young adults. Generally speak-	lent and sexual content in commercials themselves on	250
193	ing, viewers are not as compelled by commercials as by	memory for products and interest in buying those	251
194	the shows themselves (many viewers, after all, use commer-	products. It is hypothesized that violent or sexual con-	252
195	cial breaks to visit the water closet or to make a snack). As	tent in the commercials themselves will increase both	253
196	such, advertisers may use similar strategies as the shows	memory for the commercials and intent to buy the	254
197	themselves, namely injecting sex or violence into the com-	product. Since such content in commercials them-	255
198	mercials, in order to retain viewer interest and allow their	selves is linked directly with the product, they are	256
199	products to be exposed to potential consumers. Research	hypothesized to have greater influence than content	257
200	has suggested that violent or sexual elements to commercials	of the shows.	258
201	to enhance their appeal, although potentially distracting	(3) It is further hypothesized that memory for products in	259
202	viewers from details of the commercial (Fried & Johanson,	violent commercials will be enhanced when matched	260
203	2008; Reichert, Heckler, & Jackson, 2001; Reid & Soley,	with violent shows, and memory for products in sex-	264
204	1981). Thus, television and television advertisement involves	ual commercials enhanced when matched with shows	262
205	a two-part process. Violent or sexual television attracts the	with sexual content.	263
206	viewers; sexually or violently compelling advertisements		
207	keep them in the seats during commercial breaks. These		
208	two processes work together to ensure product visibility.		
209	As certain kind of shows (violent or sexual) attract cer-	Method	265
210	tain viewers, it may be important to match commercial con-		
211	tent to show content. Violent or sexual commercials shown	Participants	266
212	during relatively nonviolent, nonsexual programming may		
213	come across as inappropriate or shocking. By contrast non-	The current study included 212 university students from a	267
214	violent, nonsexual commercials shown during more sexual	Hispanic-serving regional comprehensive university in	268
215	or violent programming may fail to hold viewers' interest	South Texas. Of the participants 79 (37.3%) were men	269
216	and attention, resulting in the failure of the commercial.	and 133 (62.7%) were women. Regarding ethnicity, 195	270
217	Thus, matching commercial to program content could argu-	(92.0%) were Hispanic, 8 (3.8%) were Caucasian, 2 (1%)	271
218	ably be an essential component of maintaining viewer	were African-American, and 7 (3.3%) identified as "Other"	272
219	engagement. In other words the content of the show	or did not report ethnic background. The mean age of the	273
220	"primes" the viewer's consciousness, helping to set up	participants was 23.88 (<i>SD</i> = 5.89), and their average edu-	274
221	retrieval cues for commercials with similar content. The	cation level was equivalent to a college student of junior	275
222	"matching" hypothesis could be a moderating influence	standing.	276
223	on the attract/remember theoretical model and is worth		
224	examining. The alternate view is that matching is not	Independent Variables	277
225	required and sexual or violent content in commercials is		
226	advantageous irrespective of the content of the television	Television Shows	278
227	show. In such case, viewers are actively linking the products		
228	in the commercials with the proximal sex and violence in	Three exemplar shows from each show type (violent, sexual,	279
229	the commercials themselves. As the sex and violence in	violent and sexual, and neutral) were chosen for this study.	280
230	the television shows is more "distal" and unrelated to the	For the purposes of this study, violent content was defined as	281
231	product, viewers do not link the two and television content	any physical act that included harm or injury to a person, or	282
232	does not enhance or impair memory for products.	threatening harm to a person by another person. For the pur-	283
233	As noted earlier, the mechanism by which television pro-	poses of making a clear contrast, all violent exemplars	284
234	grams help to "sell" products may not be through direct	included intentional physical person to person injury. All	285
235	influence, but merely by attracting viewers and allowing	nonviolent shows were devoid of personal injury (intention-	286
236	the advertisements themselves to sell the product. Thus	al or otherwise), threatened harm, or intentional damage	287
237	the current study has several goals:	to property. For the purposes of this study, sexual content	288
238	(1) The present study will consider the effects of violent	was defined as including provocative dress intended for sexual	289
239	and sexual content in the television shows on memory	arousal, exposure of primary or secondary sex organs	290
240	for products in commercials. It is hypothesized that	(primarily breasts or buttocks), simulated intercourse or	291
241	the content of the television show (sexual, violent,	other sexual acts, or explicit discussions of sexual acts.	292
242	both, or neither) will not produce appreciable effects	All sexual exemplars included at least two elements of the	293
243	in regard to memory for commercials, or intent to	above definition, wherein all nonsexual shows were chosen	294
244	buy the product. In other words, so long as a televi-	so as to have no elements of the above definition. Violent	295
245	sion show is interest to viewers the show will fulfill	and sexual had been rated equivalent of TV-14 due to their	296
246	the "attract" functioning. Violent or sexual content	content, whereas the neutral shows had been rated TV-G.	297

298	Violent shows included: <i>X-Files</i> , <i>24</i> , and <i>Band of Brothers</i> .	watch the show had an internal consistency between them	350
299	Sexual shows included: <i>Sex and the City</i> , <i>Will and Grace</i> ,	of ($\alpha = .87$) and were thus collapsed into a single variable	351
300	and <i>Stacked</i> . Shows with both sexual and violent content	to be used as a covariate in further analyses.	352
301	included: <i>CSI: Miami</i> , <i>Buffy the Vampire Slayer</i> , and <i>VIP</i> .		
302	Neutral shows included: <i>Seventh Heaven</i> , <i>Boy Meets World</i> ,		
303	and <i>Raven</i> . All shows included were a 1-hour presentation,		
304	thus for some half-hour sitcoms (i.e., <i>Will and Grace</i> , <i>Raven</i> ,	Dependent Variables	353
305	<i>Boy Meets World</i> , and <i>Stacked</i>) two episodes were shown.		
306	In each show at standardized intervals (~ 15 , 30 , and 45	Memory for Commercials	354
307	min) the 12 commercials were inserted in standardized		
308	blocks of four. All participants saw the same commercials	In order to assess for the respondents' memory for commer-	355
309	in the same order, despite the television show they were	cials after viewing the television program, respondents were	356
310	asked to view. The order of these commercials themselves	given a piece of paper with 12 empty slots and asked to	357
311	was randomly determined, but each block included at least	recall without prompting, as many of the commercials that	358
312	one commercial of each type (violent, sexual, or neutral).	they had just seen in the television show as they could	359
		remember.	360
313	Commercials		
314	Twelve exemplar commercials were chosen to represent	Intent to Buy	361
315	three commercial types (violent, sexual, and neutral).		
316	Because most commercials are relatively short, few commer-	For each item recalled from memory as described above,	362
317	cials have time to include both violent and sexual content.	participants were also asked to rate on a 5-point Likert scale	363
318	All commercials were for products with "brand name recog-	how likely they were to buy that product in the future. This	364
319	nition," in contrast to Bushman (2005), as these are the sort	is designed to measure not only product recall but product	365
320	of products most likely to be marketed during prime-time	interest.	366
321	television. All commercials were chosen for their attempt	Procedure	367
322	to grab the viewers' attention, thus balancing the often		
323	humorous content of the neutral commercials with the sexual	Students were approached in a classroom setting and asked	368
324	or violent content of the other commercials. Violent commer-	to participate in exchange for extra credit. Twelve appoint-	369
325	cials included those for <i>Nike</i> , <i>Reebok</i> , <i>John West Salmon</i> , and	ment times were made available at the university theater	370
326	<i>Federal Express</i> . Sexual commercials included those for	to view the exemplar shows. Students were randomly	371
327	<i>Victoria's Secret</i> , <i>Bud Light</i> , <i>Axe</i> , and <i>Microsoft Office XP</i> .	assigned to one of the 12 appointment times and each exem-	372
328	Neutral commercials included those for <i>Pizza Hut</i> , <i>Pepsi</i> ,	plar show was randomly assigned to one of the appointment	373
329	<i>Pentium 4</i> , and <i>ESPN</i> (Lance Armstrong on an electricity	times.	374
330	generating bicycle). All of the neutral commercials were	Prior to the show, students were presented with an	375
331	humorous rather than bland in content, in an attempt to match	informed consent form, which they were asked to read	376
332	the "impact" of these commercials with those of violent or	and sign and invited to ask any questions they might have.	377
333	sexual content. The same definitions for violent and sexual	All students viewed a 1-hour presentation of the exemplar	378
334	content were used for commercials as for television shows,	show in which the commercials had been embedded. Fol-	379
335	although it should be noted that commercials are not rated	lowing completion of the show students were asked to fill	380
336	as television shows are.	out the study questionnaires. Total completion time for the	381
337	Covariates	show and questionnaire was approximately one and a half	382
338		hours. All study procedures were designed to conform to	383
339	Follow-Up Questionnaire	university IRB requirements and APA ethical standards for	384
340		research with human subjects.	385
341	As a form of manipulation check, to be sure that the televi-	Power Analysis	386
342	sion shows functioned as intended, respondents were asked		
343	to rate on a 5-point Likert scale, how sexually explicit and	G*Power was used to conduct a sensitivity (post hoc) power	387
344	how violent they found the television show that they had	analysis with our sample. Results indicated that our sample	388
345	watched. Violent shows were expected to be rated as signif-	is powerful enough (at $1 - \beta = .80$) to detect effect sizes	389
346	cantly more violent, and sexual shows as significantly more	approximately $r = .11$ in value. This value is nearly that	390
347	sexual than their respective controls. Respondents were also	of Cohen's (1992) cut-off for a "small" effect, and lower	391
348	asked to rate how exciting and interesting it was to them,	than that suggested by other researchers as a cut-off for eval-	392
349	how likely they would be to watch the show of their own	uating practical significance (Ferguson, in press; Lipsey,	393
	free will, and whether they had seen the show before. The	1998). As such, we are confident that the sample provides	394
	three items related to interest, excitement, and desire to	us with adequate power to address our hypotheses.	395

Results

Manipulation Check

The impact of sexual and violent shows in relation to non-violent or nonsexual controls was analyzed by *t* test to ensure that the programs had the desired impact. As expected, shows with sexual content were rated as more sexual ($M = 2.77$, $SD = 1.05$) than were shows without sexual content ($M = 1.51$, $SD = 0.84$) $t(210) = 9.54$, $p \leq .001$. Similarly, violent shows were rated as more violent ($M = 3.12$, $SD = 1.13$) than were shows without violent content ($M = 1.13$, $SD = 0.63$) $t(210) = 14.82$, $p \leq .001$. These results provide evidence that the exemplars chosen were effective representatives of violent and sexual television shows.

Table 1 presents mean values and standard deviations for outcome variables across the four television show categories.

Effects of Violent or Sexual Content on Television for Memory of Commercials

The effects of television show type on memory for commercials and intent to buy the product was examined using a MANCOVA. Independent variables in this analysis included the type of show (violent, sexual, combined, or neutral) and participant gender. All four show types were compared to each other. Covariates included the degree to which participants enjoyed the show and whether they had seen the show previously. Dependent measures included both number of commercials remembered for each type of commercial (violent, sexual, or neutral) and willingness to buy products from each of these commercial types.

Results indicated a significant main effect for the type of show (using Wilks' Lambda, $F(18, 546) = 1.63$, $p < .05$; $\eta_p^2 = .05$). By contrast, no main effect was found for gender $F(6, 193) = 0.67$, $p > .05$). Univariate analyses revealed a significant effect for the willingness to buy products that had themselves been advertised with violent commercials, $F(3, 198) = 2.93$, $p < .05$; $\eta_p^2 = .04$. Results suggested that people were more likely to buy products that had been advertised with a violent commercial if they had just seen

a neutral show ($M = 6.34$, $SD = 4.28$) than if they had just seen a violent ($M = 4.83$, $SD = 3.41$), sexual ($M = 4.88$, $SD = 3.18$), or combined ($M = 4.92$, $SD = 3.59$) show. This effect was very small however, $r = .12$ with a confidence interval of $-.02 \leq r \leq .25$ and statistically no different from zero. These results do not support our hypothesis regarding matching of television shows to commercial content. No other main or interaction effects were found for the type of show or gender on memory for commercials or willingness to buy products advertised with sexual or neutral commercials.

Effects of Violent or Sexual Content in Commercials Themselves on Memory of Commercials

The effects of commercial type (violent, sexual, or neutral) on memory for commercials and intent to buy the product were examined using two mixed-design ANOVAs (since all participants saw all commercials in standardized order, this is a within-subject variable). Independent variables in this analysis included the type of commercial and participant gender. Dependent measures for the first ANOVA were number of commercials remembered for each type of commercial (violent, sexual, or neutral). The dependent measure for the second ANOVA was willingness to buy products from each of these commercial types. As we are examining the impact of commercials, not the shows themselves, the covariates related to show enjoyment, and having seen the show before, were not used in these analyses.

Results from the ANOVA on memory for commercials across commercial types found a significant main effect for commercial type, $F(2, 420) = 21.60$, $p < .001$; $\eta_p^2 = .17$. This effect was small but robust $r = .22$, $.09 \leq r \leq .35$. Specifically, participants had better memory for violent commercials ($M = 2.10$, $SD = 1.16$) and sexual commercials ($M = 2.13$, $SD = 1.16$) than they did for neutral commercials ($M = 1.59$, $SD = 1.15$). No main effect for gender, $F(1, 210) = 1.25$, $p > .05$, or the gender by commercial interaction, $F(2, 420) = 0.77$, $p > .05$, was found.

Table 1. Mean values and standard deviations for television content groups

Television show	Vrem	Vbuy	Srem	Sbuy	Nrem	Nbuy
Violent (<i>M</i>)	2.04	4.83	2.06	5.56	1.69	5.12
Violent (<i>SD</i>)	1.24	3.41	1.06	3.30	1.21	4.20
Violent and sexual (<i>M</i>)	2.09	4.88	2.03	5.54	1.59	4.64
Violent and sexual (<i>SD</i>)	1.06	3.18	1.19	3.86	1.04	3.92
Sexual (<i>M</i>)	2.10	4.92	2.29	6.65	1.76	5.24
Sexual (<i>SD</i>)	1.20	3.59	1.10	4.33	1.23	3.99
Neutral (<i>M</i>)	2.18	6.34	2.16	6.14	1.32	4.52
Neutral (<i>SD</i>)	1.17	4.28	1.28	3.99	1.32	4.85

Note. *M* = Mean; *SD* = Standard deviation; Vrem = violent commercials remembered; Vbuy = willingness to buy "violent" products; Srem = sexual commercials remembered; Sbuy = willingness to buy "sexual" products; Nrem = neutral commercials remembered; Nbuy = willingness to buy "neutral" products.

Results from the ANOVA on willingness to buy products across commercial types found a significant main effect for commercial type, $F(2, 420) = 5.49, p < .01; \eta_p^2 = .03$. Specifically, participants were more inclined to buy products advertised with violent commercials ($M = 5.22, SD = 3.65$) and sexual commercials ($M = 5.95, SD = 4.00$) than they were for neutral commercials ($M = 4.87, SD = 4.22$). However this effect was very small $r = .11, -.03 \leq r \leq .24$ and crossed the zero point, suggesting that it is not reliable. No main effect for gender, $F(1, 210) = 0.42, p > .05$, or the gender by commercial interaction, $F(2, 420) = 0.74, p > .05$, was found.

Discussion

Related to the effect of violent and sexual content in television shows on memory for commercials and willingness to buy products, the results of the present study generally find little effect for television content. People generally remembered commercials equally well and were equally willing to buy products independent of the show they had watched. In relation to Bushman's (2005) study of commercials and television content, the findings of this study do not replicate Bushman's findings. As such, the first hypothesis of this study was supported.

Perhaps more relevant however, participants were more likely to remember commercials if the commercials had violent content or sexual content. This was true no matter whether the content of the commercial matched the content of the show, and even in comparison to humorous neutral commercials for well-known products. This effect was not large, however, suggesting that other factors in commercials may be more critical in garnering attention. The effect on desire to buy products was negligible. As such, the hypothesis of this study that violent and sexual programs need only attract viewers, and that it is sex and violence in commercials that sell products was partially supported. Sex and violence enhances memory but not necessarily increase interest in buying the product.

The current study is not without weaknesses. One weakness of the current study is that we relied specifically on free recall. It is possible that cued recall or implicit memory testing may have produced different results (Holden & Vanhuele, 1999). Therefore we have not tested all possible avenues for product recall. Further one approach that we did not try in the current study was counterbalancing the order of the commercials. Although we counterbalanced the presentation of violent, sexual, nonviolent, and combined commercials, the commercials themselves were presented in a standardized order. Although we believe that a standardized format such as this is important, it is possible that a counterbalancing approach may have produced somewhat different results. It is also worth noting that our study includes a majority of Hispanic participants. As individuals from differing cultures may respond to sex and violence differently, caution is advised in generalizing the results of this study to diverse groups. One further weakness of this entire

line of research is also worth noting. None of the studies discussed, including the present one, give participants the option of disengaging from the commercials altogether. In the laboratory environment, participants may feel that they are expected to stay and watch the commercials. In the "real world," as noted earlier, viewers may leave the television viewing area altogether during commercial breaks. Whether commercials with sexual or violent content prevent such disengagement remains to be explored. By contrast, the effects of television content on memory for commercials did not vary according to the content of commercials. Thus, the third hypothesis of the study, that matching shows to commercials in regard to content would enhance memory, was not supported.

The current study sought to answer several questions about the effects of sex and violence on television and in commercials. Results indicate that watching sex and violence in commercials can increase memory for products, but does not necessarily help sell them. The memory enhancing effects of violence or sex in commercials are consistent across all shows, irrespective of content of the shows. On the other hand, the belief that violent or sexual content actually impaired memory for advertised products was not supported.

Our results offered preliminary support for the two-part attract/remember theoretical model proposed in the introduction. Our current results examine the second part of the theoretical model, that sex and violence in commercials increases memory for products, to a greater degree than the first part, that sex and violence in the shows themselves attracts viewers. Given the popularity of sexual and violent shows as indicated by Neilson ratings this first element (attraction) may appear as something of a "given," but it is worth noting that we did not test it in the current study. Future research could examine the "attraction" component of the theoretical model empirically by offering participants a choice between show descriptions in which sexual, violent, or neutral elements were emphasized, with participants allowed to choose which show they preferred to watch. Such research would provide further evidence in evaluation of the attract/remember theoretical model. Sex and violence may not always be necessary to "attract" viewers . . . indeed nonviolent shows such as *American Idol* have been very successful in attracting viewers with no violence and little sexual content (aside from physically attractive contestants). However, sex and violence certainly is one element in attracting viewers. Once viewers are attracted to a particular show, adding sex or violence into the content of commercials, irrespective of the content of the shows themselves, appears to increase memory for products in those commercials. Thus brand recognition is increased, arguably the primary purpose of advertising.

It is hoped that this study will foster discussion and discourse within the media effects literature.

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