Context Effects of Erotic Television Advertising

by Claus Ebster, Udo Wagner, Verena Richter and Madeleine Prenner

Television commercials usually appear together as part of a ‘commercial break’, yet little research confirms the effects of commercials on their surrounding commercials. This study therefore investigates the impact of erotic commercials on subsequent commercials. It is based on findings reported in the literature on information processing and affective priming. In a laboratory experiment, 200 participants viewed blocks of commercials that either contained one commercial with a strongly positive erotic appeal or did not. The subsequent test advertisement produced better recall and better evaluations when preceded by an erotic rather than a neutral commercial.

Keywords
Advertising Research, Context Effects, Emotion, Recall, Advertising Evaluation

1. Introduction

When using television as a medium, advertisers must make two basic choices about when to air their commercials. First, they determine the program context, such as the television show or type of show they will interrupt with their commercial. Second, they need to decide the order in which they want their commercial to appear within the commercial break (Bruhn 1997).

Many studies research the effects of the program context on the effectiveness of television advertising. As early as 1971, Kennedy was investigating how the program environment would influence viewers’ processing of commercials. Since then, a myriad of studies have followed that show mental reactions to television programs do not stop during the commercial break. Rather, viewers’ reactions carry over to the commercials embedded within that program context (Aylesworth/MacKenzie 1998; Lloyd/Clancy 1991; Norris/Colman 1993; Schumann/Thorson 1990).

However, far fewer studies deal with the placement of the commercial within a commercial break. In some countries, advertisers may select the positioning of their commercial within a block of commercials (Pieters/Bijmolt 1997), and advertising researchers find that placing a commercial at the beginning or end of a commercial break can significantly increase information retention (Crano 1977). Despite this understanding of the temporal position of commercials though, research offers little insight into the carryover effects of commercials on the other commercials within that same commercial break.
This research gap may reflect the perception of advertisers’ limited influence over the placement of their commercial in relation to other commercials. This perception may be a misconception though; network television offers advertisers two choices in their advertising purchases, namely, participation and sponsorships. With a participation basis, several advertisers share advertising time within a program (Boveé/Arens 1982), and indeed, the advertiser likely has little control over the placement of the commercial. However, in the case of sponsorships, which are more costly and therefore admittedly less common, advertisers participate in the production of the program content and may control the number, placement and content of other advertisements that also appear (Belch/Belch 2004). For example, through its Procter & Gamble Productions, Inc., arm, the consumer packaged goods company has for decades developed and controlled soap operas such as As the World Turns and Guiding Light (Albiniak 2005). Thus, some advertisers could benefit from information about the carryover effects caused by other commercials in the same commercial break.

This study attempts to initiate research in this area by investigating the effects of commercials that use strongly emotional, positive appeals on consumer processing of subsequent commercials. From the outset, the authors recognize that ad sequencing may have multiple effects, though this study includes only two of them explicitly. Specifically, this research concentrates on strongly emotional, erotic spots, a type of television advertising frequently employed by advertisers, and details their effects on consumers’ recall and evaluation of a subsequent commercial.

Advertising literature often classifies advertising effects according to whether they result from a single exposure to an ad, such as recall, or require multiple exposures, such as purchase intentions (Franzen 1994; Moorman/Neijens/Smit 2005; Wright-Isak/Faber/Horner 1997). For this investigation, effects resulting from a consumer’s single exposure to a commercial, such as recall and ad evaluation, are most pertinent, because commercials often appear in different orders during a commercial break. Furthermore, evidence indicates that advertising recall and evaluation are program-induced (e.g. Lord/Burnkrant 1988), which makes them likely candidates for this investigation of commercial-induced context effects.

2. Context effects of commercials: Existing evidence

2.1. Effects on memory

Several existing studies regarding program-induced carryover effects focus on how a television program in which a commercial is embedded may influence recall of the commercial. Space limitations allow for only a short overview of this research; pertinent articles fall within three general topic areas.

Congruency between program context and commercial context

The first stream of research deals with the congruence between the program context and the commercial context and the potential effect on a person’s recall capabilities. In an experimental setting, Farnham/Gunter/Walsh (1998) vary pairs of program and commercial contents systematically to compare humorous and non-humorous contents. In general, viewers recall advertisements better when they appear during a non-humorous program. Moreover, memory for humorous commercials is better than that for non-humorous advertisements.

In a similar vein, Farnham/Gunter/Richardson (2002) analyze food–car pairings. In general, advertisements for cars prompted better memorization than did those for food. The non-congruent context further favoured free ad recall (i.e. car commercials embedded within a food-oriented program). However, according to the samples of young consumers in both studies, a cued-recall condition induces opposite results. Furthermore, these authors find that involvement with the surrounding program is unrelated to both recall and recognition in both studies.

Finally, Parker/Furnham (2007) examine the recall of sexual and non-sexual television advertisements embedded within programs that contain or do not contain sexual content. Sexual program content impairs the recall of advertisements, regardless of the type of commercial. Moreover, they find that the (non-)congruence effect identified in previous studies was irrelevant in this case.

Influence of violence or erotic program context

Another stream of research mostly involves work by Bushman and colleagues. In a series of articles, they investigate the influence of violence or sexual program context on memory for products in television commercials. Bushman (1998) suggests potential advertisers should not sponsor violent programs because his experimental setting indicates that respondents who see a violent film clip suffer poorer memory for commercials than do participants who watch a non-violent film clip. Bushman/Bonacci (2002) extend this experimental design and distinguish among violent, sexually explicit and neutral program content. They also record immediate and delayed memory for commercial messages. Consistently, the violent or sexual program impairs ad recall for both men and women of all ages. As an explanation, these authors suggest viewers of these programs can direct their attention to commercials; furthermore, because the program contents prompt sexual or violent thoughts, viewers’ recall of commercials suffers. Continuing this line of research, Bushman (2007) systematically varies program and commercial content and confirms the impairment of commercial memory in the context of violent or sexual program content, regardless of the ad content (i.e. no congruency effect).
Involvement with television program

The third stream of research offers widespread consensus that an important factor for remembering commercial content is the involvement of the consumer with the television program. However, there is less consensus about the level of program involvement that has the most positive impact on advertising recall. Soldow/Principe (1981) report that consumers who watch television commercials embedded in a highly involving program context remember fewer sales messages and brand names than do consumers who view commercials either during a low involvement program or without a program context. A similar effect of high involvement on viewers’ recall of commercials also emerges from other studies (Bryant/Comisky 1978; Thorson/Reeves/Schleuder 1985).

In this scenario, the high level of program involvement, regardless of its cause, inhibits the processing of commercials. The capacity constraints of short-term memory (Miller 1956; Simon 1974) suggest that highly involving program content may induce viewers to commit more of their attentional resources to processing the program, not the commercial (Lord/Burnkrant 1988).

However, the high arousal generated by strongly involving content also may encourage greater processing of information, as demonstrated by Goldberg/Gorn (1987) in a marketing context. A consumer’s heightened state of arousal can facilitate recall and recognition of stimuli (Singh/Churchill 1987), though such arousal does not immediately vanish when its source (e.g. television program, preceding commercial) disappears (Cantor/Zillmann/Bryant 1975). Rather, it may influence the processing of subsequent information. In a study of print advertisements for example, Srull (1983) finds that inducing (positive or negative) affect enhances the recall of advertisements, such that the stronger the arousal, the better the recall.

Highly involving television programs thus might have a twofold effect on ad recall: On the one hand, attentional resources focused on the context should reduce the consumer’s ability to rehearse and elaborate the commercial; on the other hand, the cognitive arousal generated by the highly involving program may enhance the viewer’s opportunities to process subsequent commercials.

It is important to note that the memory effects of television programs on embedded commercials and those of commercials on other, subsequent commercials likely differ. First, high involvement with a program may serve as “a screen preventing any interruption from entering awareness” (Soldow/Principe 1981, p. 59). Second, consumers may become irritated by commercial interruptions to a highly involving program, but no such irritation should emerge when one commercial follows another, because commercials are self-contained and do not interrupt each other. Third and most importantly, with the exception of truly extraordinary advertisements, even strongly emotional commercials rarely induce as much involvement as an action-adventure show (the high involvement condition in Bryant/Comisky 1978) or a highly relevant newscast. Therefore, in the case of commercials, strongly emotional ads are expected to improve processing of the subsequent commercial and in turn improve its recall.

Various positive emotional appeals, such as happiness, contentment, love or pride (Laros/Steenkamp 2005), appear in advertising. This study focuses on one of these positive emotions, namely, erotic appeals, because they are in common marketing use and induce strong (positive) emotions (Belch et al. 1982; Bello/Pitts/Erzel 1983).

In summary, this leads to hypothesis 1:

**H1:** If a neutral commercial is preceded by a strongly emotional, erotic commercial, viewers remember it better than they would if it were preceded by a neutral commercial.

### 2.2. Effects on advertising evaluation

In addition to memory effects, highly emotional commercials should influence consumers’ attitude toward subsequent commercials. For substantiation of this proposition, this study turns to two research streams: context theory and the theory of affective priming.

**Context theory**

Behavioural decision research frequently indicates that people’s individual preferences are largely constructed, such that instantaneously accessible inputs influence the process by which they form judgments and attitudes. In view of frequently stated conclusions of such research (e.g. Lichtenstein/Slovic 2006), Simonson (2008, p. 155) posits: “There is a growing consensus that preferences are typically constructed when decisions are made, rather than retrieved from a master list of preferences stored in memory. In particular, preferences are influenced by the method of preference elicitation, the description of the options, and the choice context”. He contrasts this view with a more traditional claim that people may have inherent preferences that reflect their more stable dispositions, determined prior to the decision context. For the research at hand, the cognitive frame provided by a preceding commercial might be an accessible input that influences evaluations of the next ad. Liking of the advertised product or the general appearance of that ad would represent the viewer’s inherent preference. Therefore, context effects might become quite pronounced, because stable dispositions might not even exist (e.g. for a newly launched product).

A special type of context effect for advertising effectiveness pertains to “clutter”. On television, clutter refers to the combination of commercials and other non-program material, such as program promotions and public service announcements (Danaher/Bonfrer/Dhar 2008, p. 212). Kent (1993) concentrates on competitive clutter (i.e.,
advertisements delivered by competing brands at or near the same time and place as advertisements for the focal brand) and discovers that highly cluttered media contexts might interfere with competitive ads, which would have negative effects on brand-attribute recall. Danaher/Bonfrer/Dhar (2008) extend this line of research, concentrating on sales rather than brand evaluations as their dependent variable and conducting an extensive econometric study using aggregate scanner data. They also conclude that context effects are strong. These works pertain to the research at hand but clearly possess a different focus.

Theory of affective priming

Cognitive psychology research indicates that consumers’ interpretation of information often depends on the knowledge structures or concepts they activate (Higgins/King 1981; Wyer/Srull 1981). Concepts activated more recently tend to be more accessible (Higgins/King 1981), and priming can activate a concept (a node in memory) through exposure to a certain stimulus, which enables it to influence the interpretation of incoming information. For example, seeing the word ‘rabbit’ activates the concept of a furry animal and thereby primes the spelling of the spoken word ‘hair’ as ‘h-a-r-e’ (Bower 1986; Meyers 1998). Priming also can occur without the person’s awareness, which implies the consumer does not need to acknowledge the activated concepts explicitly (Higgins/Bargh/Lombardi 1985).

Consumers often interpret ambiguous stimuli in terms of the concepts primed by the surrounding context (Wyer/Srull 1981). Thus, when Yi (1991) showed participants a series of print advertisements, two of which involved PCs and promoted either their versatility or their ease of use, he could demonstrate that the content of the first ad influenced the evaluation of the brand advertised in the second ad. That is, if the subject saw the versatility ad before the target ad that featured a computer with many features, they evaluated the computer in the second ad as significantly better than when they had been primed by the ease of use advertisement in advance.

Priming can influence both cognitive and emotional evaluations. Affective priming uses emotional stimuli to prime congruent evaluations (Fazio et al. 1986), and both visual stimuli (Avero/Calvo 2006) and words (Fazio et al. 1986) help induce positive or negative emotions (which is especially relevant for television advertising). The affective priming effect can be enhanced by the similarity between the prime and probe, but it also works when the two are not similar (Avero/Calvo 2006). As Fazio (2001, p. 117) states, affective priming “has proven to be a robust and replicable phenomenon apparent in experiments using a variety of priming stimuli, target stimuli and specific task requirements”.

In line with the foregoing discussion, hypothesis 2 is postulated:

**H2:** If a neutral commercial is preceded by a strongly emotional, erotic commercial, viewers evaluate it better than they would if it were preceded by a neutral commercial.

Fig. 1 summarizes the theoretical foundations of these hypotheses.

### 3. Method

#### 3.1. Participants

A total of 200 undergraduate and graduate business students at an Austrian public university participated in the study (a laboratory experiment), of whom 57% were women. They ranged in age from 17 to 42 years (mean...
neutral commercials and rated a Microsoft ad, in which a young couple undresses each other (see Fig. 2a), the highest (3.1) on a five-point scale developed by Huang (2004) to measure the erotic appeal of an advertisement. The scale contains four unipolar items: erotic, lustful, sexual and desired. A rating of 3.1 may seem relatively low, but broadcast and ethical restrictions on sexually explicit content had to be considered in the selection of the stimulus material. Parker/Furnham (2007, p. 1226) similarly reason that “sexual” might “refer to image (i.e. nudity) or sounds or innuendo” that entail less explicit sexual content. The Microsoft commercial combines sexual innuendo with a sense of humour, and according to Furnham/Gunter/Walsh (1998), this combination should make the spot an attractive stimulus. Altogether, the target population (both, females and males) should exhibit positive emotional responses to the ad.

This commercial also rated as the most liked and received a score of 6.5 on the eleven-point program analyzer measurement (described in detail in the dependent variables section). The two neutral commercials (see Fig. 2b and 2c) similarly were subject to pre-tests. None of the subjects recognized the ads, though most of the respondents knew the three brands, namely, Microsoft (97 %), Uncle Ben’s (100 %) and Nescafe (100 %).

3.3. Dependent variables

To operationalise memory for the test commercial, this study uses unaided and aided brand recall. In accordance with previous literature (Churchill/Iacobucci 2005), the unaided recall measure contains an open question that asks which brands the subject remembered seeing during the commercial break. The aided brand recall measure also uses an open question but provides product categories as retrieval cues. A program analyzer measures subjects’ evaluations of the test commercial. The ‘Program Evaluation Analysis Computer’ (Fenwick/Rice 1991) is a continuous advertising measurement method developed by Lazarsfeld and Stanton in the 1930s (Levy 1982). Participants use a ‘hand held unit to indicate the degree to which they „feel positive“ about what is on the television screen at that moment” (Fenwick/Rice 1991, p. 25). For this study, participants moved a lever up or down a scale labelled zero (very negative evaluation) to ten (very positive expression), with five at the middle position, to record their reactions. The program analyzer records participants’ affective reactions every .5 seconds; these evaluations were averaged over the entire duration of the ad to result in the rating used for the subsequent analysis.

3.4. Procedure

A trained experimenter led the participants into the screening room and seated them in front of a standard television set. This experimenter indicated that their task would be to evaluate a television program using the program analyzer. A brief news segment followed by three

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23 years). Participants were informed that their task would be to watch and evaluate a television program. They were randomly assigned to one of two treatment conditions. Although these subjects did not receive payment for participating in the study, they earned class credit for their participation.

3.2. Stimulus material

The stimulus material consisted of a videotaped news program interrupted by a commercial break that contained twelve commercials. The number of commercials reflects the length of a typical commercial break on Austrian television during prime time. In the experimental group (EG), the tenth commercial was a strongly positive, emotional commercial, whereas in the control group (CG), the tenth commercial was neutral. The filler ads were identical across both groups, and all commercials were 30 seconds in length. To ensure that the participants had no prior knowledge of the commercials, they came from two British television stations not normally accessible to Austrian consumers. The use of English commercials is appropriate because Austrian business students receive intensive language training and are highly proficient in English. A pre-test determined the positive emotional commercial (prime spot in the EG, # 10), the neutral commercial (prime spot in the CG, # 10) and the neutral commercial following the treatment (target spot in both groups, # 11).

The 78 subjects in the pre-test were different from those in the main experiment but came from the same subject pool and clearly constitute the target market for the ads tested. They viewed six positive emotional and twenty sexual commercials and rated a Microsoft ad, in which a young couple undresses each other (see Fig. 2a), the highest (3.1) on a five-point scale developed by Huang (2004) to measure the erotic appeal of an advertisement. The scale contains four unipolar items: erotic, lustful, sexual and desired. A rating of 3.1 may seem relatively low, but broadcast and ethical restrictions on sexually explicit content had to be considered in the selection of the stimulus material. Parker/Furnham (2007, p. 1226) similarly reason that “sexual” might “refer to image (i.e. nudity) or sounds or innuendo” that entail less explicit sexual content. The Microsoft commercial combines sexual innuendo with a sense of humour, and according to Furnham/Gunter/Walsh (1998), this combination should make the spot an attractive stimulus. Altogether, the target population (both, females and males) should exhibit positive emotional responses to the ad.

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commercials followed, to give participants an opportunity to familiarize themselves with the program analyzer under the guidance of the experimenter. They then placed the lever on their handheld unit in the middle position and heard that the program they were to evaluate was about to begin. A news segment began, followed by a commercial break containing twelve commercials, after which the news program resumed. Next, they completed a short questionnaire, designed to collect the brand recall data. The delay between the stimulus and recall is rather short (i.e., a couple of minutes), which implies that the effects should pertain to active memory.

Because of their advanced knowledge of the English language and the rather easy-to-understand messages of the advertising spots, the experimenter did not ask respondents if they comprehended the ad claims. After the data collection, all participants were debriefed about their tasks; none of the participants complained about a lack of understanding of the ads.

4. Results

4.1. Manipulation check

To verify the effect of the stimulus, a comparison of the commercials in the tenth position (neutral prime spot for the control group, erotic prime spot for the experimental group) produce the results in Tab. 1 and Tab. 2 (row Neutral/erotic prime spot). With respect to unaided recall, the erotic commercial prompts much better memory (58 % vs. 24 %). Moreover, the program analyzer evaluation favours the erotic commercial (7.05 vs. 5.21). These differences are statistically highly significant. Recall is a binary variable, so the differences between groups can be assessed with a $\chi^2$ test ($\chi^2 = 23.9$); as a metrically scaled variable, ad evaluation requires a difference analysis based on a $t$-test ($t = 7.45$). For both tests, the $p$-values are less than .01. Similar comparisons of commercials identical across both groups that appeared before the test ad produce one (out of nine) highly significant difference (i.e., unaided recall for #8, evaluation for #9). Members of the EG evaluated the erotic prime spot more positively than did the pre-test participants (7.05 versus 6.5), though this difference is not significant at the five percent level (two-sided).

The EG respondents remember the neutral target spot better than the erotic prime spot (unaided recall equals 58 % and 62 %, respectively), though the difference is not statistically significant ($\chi^2 = .33$; $p = .56$). This study centres on the sequencing effects of ads within a commercial break, not the effect of a single spot, which explains the comparison of a (neutral) target spot between experimental groups rather than a comparison of ads with different contents or appeals within the same group.

To minimize the burden on respondents, no additional manipulation checks occurred. However, better recall and better evaluation of a target spot caused by the preceding prime spot might be due to not only the prime ad’s emotional appeal but other impacts (e.g., involvement with the product featured in the prime spot). The study design cannot control for such an effect, though the distinctiveness of the two products used as advertised products in the prime spot (Uncle Ben’s gourmand sauce, Microsoft operational system XP) makes this explanation seem somewhat unlikely. In addition, from a pragmatic point of view, advertisers want better recall and better evaluations but care little about the exact causes of those benefits.

4.2. Hypothesis 1: Effect of preceding commercials on memory

The theoretical reasoning that provides the basis for $H1$ states that strongly emotional ads should improve processing of subsequent ads. According to Tab. 1, unaided and aided recall for the neutral commercial immediately following the stimulus (rows Neutral target spot) increased among the EG; these subjects remembered the commercial shown after the erotic ad much better than the respondents in the CG, who watched a neutral ad in that position:

- For the unaided recall, the difference of 27 percentage points (62 % versus 35 %) is quite impressive and statistically highly significant (i.e., $\chi^2$-value = 14.6 and corresponding $p$-value is less than .01)
- The aided recall for this commercial in the EG is also higher by nine percentage points (83 % versus 74 %), though the difference is not statistically significant (i.e., $\chi^2$-value = 2.40 and corresponding $p$-value = .12). However, aided recall already was quite high (i.e., 74 %, compared with 64 % as the mean recall averaged over all ads for the CG), which implies the potential for a ceiling effect, such that further increases in recall become more difficult.

- Furnham/Gunter/Walsh (1998) and Furnham/Gunter/Richardson (2002) indicate different context effects for aided and unaided recall (cf. subsection 2.1). In contrast, this investigation reveals a similar effect of the stimulus on memory (i.e., both recall measures for the EG exceed their benchmarks for CG).

An exploratory analysis reveals whether the effect observed for the target ad might extend to subsequent commercials. Therefore, Tab. 1 also lists the recall measures for spot #12 (rows Spot following target spot). The values do not differ statistically (i.e., $\chi^2_{\text{unaided}} = 1.75$, $p = .19$; $\chi^2_{\text{aided}} = .04$, $p = .85$).

Next, to analyze the potential effects of the respondents’ demographic profiles, logistic regression analyses use unaided and aided recall as the dependent variable and membership in experimental groups, gender and age as regressor variables. This analysis confirms the preceding results, in that the influence of experimental stimulus is verified and the impacts of demographic variables are negligible.
4.3. Hypothesis 2: Effect of preceding commercials on evaluations

Affective priming drives the improved evaluations of ads that are preceded by positive emotional commercials. As Tab. 2 (row Neutral target spot) illustrates, the program analyser evaluations for the commercial following the stimulus are higher among EG respondents than among CG participants (5.70 versus 4.57). This difference is statistically significant (i.e., t-value = 4.11 and corresponding p-value is less than .01), which offers support for H2.

In addition, the erotic commercial influences the following ad (i.e. spot # 12, row Spot following target spot). Although the difference (6.29 versus 5.84) is statistically significant (t = 1.91; p = .03), it is smaller in this case, which probably indicates the declining effect of priming.

Again, a linear regression analysis investigates the potential effects of the respondents’ demographic characteristics on their ad evaluations (evaluation values as the dependent variable; membership in experimental groups, gender and age as regressor variables). The results from Tab. 2 receive confirmation; there is a significant influence of the experimental stimulus, demographics have negligible impacts.

5. Discussion

5.1. Managerial relevance

This study assesses the potential impacts of positive emotional commercials on subsequent commercials in the same commercial break. The laboratory experiment demonstrates that an erotic ad increases remembrance and evaluation of subsequent ads. The results of this study in turn have several implications for marketing and advertising practice:

First, the sequence in which commercials appear influences recall and evaluation of subsequent commercials; therefore, advertisers should insist on more influence over the order of commercials during commercial breaks. Influential advertisers could stipulate in their contracts with television stations that the commercial preceding their commercial must use positive emotional appeals, as suggested by our results. Furthermore, these advertisers might object to their commercial appearing surrounded by other types of commercials whose effects have not been tested but might lead to negative context effects, such as fear-based or violent ad appeals (Bushman 2007).

Second, advertising and media agencies might opt to bundle several commercials from their clients and negotiate special commercial breaks for these bundles with broadcasters. This approach could help increase their effectiveness through mere ordering, without any need for further broadcasting time.

Third, network television providers might offer an additional, valuable service that takes the order effects of a sequence of commercials into consideration. Eventually, this service might lead to adjustments in the fee structure for television commercials.

In any case, the results of this research should sensitize both advertisers and broadcasters to the advertising context effects that go beyond the program context.

5.2. Theoretical contributions

In addition to their managerial relevance, the results offer implications for consumer behaviour theory. This study
extends existing literature on the effect of the surround-
ing context on television advertising effectiveness by
offering the first academic study, to the best of the
authors’ knowledge that investigates the influence of
television commercials on subsequent commercials. In
keeping with the research stream on activation theory
(Goldberg/Gorn 1987; Srull 1983), the results indicate a
positive effect of commercials that contain strongly posi-
tive, emotional appeals (e.g. erotic ads). Furthermore, the
results call attention to the salience of affective priming
theory (Fazio et al. 1986) for advertising research; erotic
commercials can act as effective primes that influence
the affective evaluation of subsequent commercials.

5.3. Limitations
Several limitations of this study require consideration.
First, as outlined in the introduction, this investigation
analyzes only a single set of commercials. Replication
studies are needed to increase the reliability of the find-
ings.

Second, the respondents represent only a student popula-
tion. This limitation might not cause severe problems for
this study, because the ads analyzed target this popula-
tion, and neither recall nor priming depends on gender or
age. Nevertheless, a similar analysis should recruit a
more representative sample to confirm the findings.

Third, to control for other influences, the ads shown were
not known in advance to the respondents. It would be
interesting to extend this analysis to commercials already
known to viewers; in this case, the effect might be smaller or even vanish completely.

Fourth, as noted previously, the internal validity of the
experiment could be improved by controlling for
involvement with the product featured in the prime spot.
Moreover, though a pre-test with similar respondents
indicates the interpretation of the prime and target spots,
they were not tested during the main study; that is, the
subjects’ actual interpretations of the ads remain
unknown. This simplification represents an effort to min-
imise the experimental burden on respondents; no obvi-
ous reasons would suggest any variance in the evalua-
tions between the pre-test and main study groups.

Fifth, the research instrument could constitute a possible
limitation. The program analyser takes continuous mea-
surements, but some participants may have been dis-
tracted by particularly involving aspects of the commer-
cials; further research might address the effects
of emotional commercials on subsequent commercials;
future research might address the effects on preceding commercials, which would be in line with
perceptual theories.

Sixth, the program analyzer also necessitated the use of a
forced exposure design, which is well-established in
advertising research. Furthermore, precautions in the
experiment minimized the chance of demand artefacts
to the experimental burden on respondents; no obvi-
ous reasons would suggest any variance in the evalua-
tions between the pre-test and main study groups.

Seventh, the commercials, taped in English, do not use
the respondents’ native language. Despite their English
language proficiency, this language issue may cause cul-
tural or comprehension effects.

5.4. Further research
This research project considers positive emotional com-
cmercials as a stimulus, and erotic appeals in particular.
Although erotic stimuli appear frequently in advertising,
so are other positive emotional appeals. Consequently,
the analysis should be extended to include other positive
stimuli, such as patriotism, happiness, contentment or
pride. It would be interesting to investigate the relative
effectiveness of these stimuli and possible interaction
effects among them.

Furthermore, involvement and priming might work for
negative emotional stimuli as well (e.g. the fear appeals
of social marketing, such as campaigns against smoking,
as well as campaigns aired by the insurance industry).
Investigations could extend in this direction.

The analysis of H2 reveals that the priming effect
extends to two subsequent commercials, though with
decreasing strength; this influence demands more system-
atic investigation. According to the same reasoning, mul-
tiple stimuli might increase involvement of the viewers
or consumers. Currently, researchers know little about
such arrangements. The current study only investigates
the effects of emotional commercials on subsequent commercials; future research might address the effects
on preceding commercials, which would be in line with
perceptual theories.

The subsequent commercials in this study are all neutral;
it also might be interesting to study the effects on other
types of commercials. Finally, the effects might be moder-
ated by situational variables or consumer characteristics,
which suggests a broad field of further research. However,
the exploratory analysis of the data from this study reveals
that the results do not depend on gender and age.

In conclusion, context effects of television advertising
provide an interesting stream of research from both theo-
retical and practical perspectives. This study aims to
draw greater attention to this issue and thereby perhaps
stimulate further research in this area.

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