SALIENT EFFECTS OF PUBLICITY IN ADVERTISED BRAND RECALL AND RECOGNITION

The List-Strength Paradigm

Hyun Seung Jin, Jaebeom Suh, and D. Todd Donavan

ABSTRACT: Previous research has demonstrated that preexposure of publicity about advertising campaigns facilitates recall of subsequently advertised brands. In this paper, we investigate the potential inhibitive effect; that is, preexposure of publicity can suppress retrieval of other nonpublicized brands that would otherwise have been retrieved. The inhibitive effect was examined in the list-strength paradigm, which posits that strengthened items in a list inhibit memory for nonstrengthened items. We found the inhibitive effect of publicity in free recall. The inhibition was not found in recognition memory, however. This study also examines the effect of publicity on the criterion placement in recognition tests. Integrated marketing communication (IMC) and its implications are discussed.

Strategies to generate publicity from advertising campaigns, which have been frequently used by political media consultants, have become a common practice in the repertoire of product and service markets since the 1990s (Harris 1998; Rothenberg 1990). A content analysis (Pasadeos, Phelps, and Lamme 2000) provides baseline information on the extent of news coverage of advertising. For example, the *New York Times* publishes more than 700 news stories about advertising per year. Philip Dusenberry, a former chairman of the BBDO advertising agency, once told the *New York Times* (Rothenberg 1990), "Anytime you release a new advertising campaign, you would be wise to bring in your PR people and ask: Is there anything in this that can stretch it beyond our media expenditure?"

Advertising and public relations practitioners argue that this kind of publicity is valuable because it is mentioned in a nonadvertising context. Also, publicity stimulates excitement and awareness for a new advertisement (Harris 1998; "No PR, No Comment" 1995). Yates (1995) noted that successful ad campaigns hit the headlines. Harris (1998) labels this kind of publicity "value-added public relations." Although many anecdotal cases about the effects of publicity on advertising campaigns have been reported in various publications, systemic empirical evidence is rare, except in Jin's (2003) study. Jin found the *facilitative* function of publicity about advertising campaigns; that is, preexposure to publicity about advertising campaigns increases recall of subsequently publicized brands.

In addition to the facilitative function of publicity, we argue in this paper that there would be a potential *inhibitive* effect: Publicity can suppress retrieval of other nonpublicized brands that otherwise would have been retrieved. With regard to recall versus recognition, one measure is considered more or less useful than the other depending on whether or not a brand cue is available in a purchasing environment (Bettman 1979; Lutz 1996; Singh, Rothschild, and Churchill 1988). Thus, the purpose of the present study is to investigate the inhibitive effects of publicity in both recall and recognition paradigms. This investigation, which is relevant to integrated marketing communication (IMC), is a timely empirical and theoretical examination of the synergistic effects of publicity and advertising (Lutz 1996; Stammerjohan et al. 2005; Thorson and Moore 1996).

INHIBITIVE EFFECT OF PUBLICITY IN FREE RECALL

Improved performance in a memory task with repetition is a well-established and, in retrospect, a commonsensical phenomenon. A century ago, Ebbinghaus (1885/1964) proposed

Hyun Seung Jin (Ph.D., University of North Carolina at Chapel Hill) is an associate professor of advertising, A.Q. Miller School of Journalism and Mass Communications, Kansas State University.

Jaebeom Suh (Ph.D., University of Alabama) is an assistant professor of marketing, College of Business, Kansas State University/Ajou University.

D. Todd Donavan (Ph.D., Oklahoma State University) is an assistant professor of marketing, College of Business, Colorado State University.

a simple threshold model of the savings effect—information once learned is relearned more quickly and remembered better than new information—a finding that remains unchallenged to this day. This model suggests that new trace strength is added to residual trace strength from old learning so that it is easier for old items to reach the threshold for recall. Virtually any model of memory can explain the effect.

In comparison to brands without publicity, the recall of advertised brands with publicity should be better due to repeated exposure. Coupled with a simple repetition effect, there are some other theoretical accounts for the facilitative effects of publicity. For example, the sensitization process that publicity may create provides additional explanations for the better memory of publicized brands. This issue is addressed in an earlier study (Jin 2003). Demonstrating theoretical accounts for the facilitative effects in the context of the Super Bowl, Jin proposed the dual path model: (a) motivation and (b) repetition. The motivation path refers to sensitization processes in which exposure of publicity stimulates consumers' active engagement with subsequent ads, in turn improving memory of those ads. As Jin (2003) suggests, the sensitization—affecting encoding processes when participants watch the ads—is believed to increase the memory of those publicized brands.

The encoding variability hypothesis (Melton 1970) also predicts the facilitative effects of publicity. That is, a stimulus undergoes changes in encoding from presentation to presentation. These changes in encoding add information to the episodic representation of the stimulus's presentations and underline the improvement in performance. Consequently, encoding variability allows for creation of more cue–target associations. When a person is exposed to a news story about ads and later watches the ads, the encoding variability effect will occur, resulting in better memory for the ads.

While Jin (2003) empirically showed better memory of publicized brands, our focal interest is the inhibitive effect of better-remembered publicized brands on nonpublicized brands. Although many different paradigms to examine inhibitive effects exist, strength-dependent models (see Anderson, Bjork, and Bjork 1994) may incorporate various observations such as the list-strength effect (Ratcliff, Clark, and Shiffrin 1990) and the part-list cueing effect (e.g., Alba and Chattopadhyay 1985, 1986; Brown 1968; Slamecka 1968). In essence, the list-strength model posits that strengthened items *inhibit* memory for nonstrengthened items.

Tulving and Hastie (1972) provided an early demonstration of the list-strength effect with the so-called A+2B paradigm. In the experimental group (A+2B condition), some of the words in the list occurred twice (words in Set B), others only once (words in Set A). All words were listed once in the control group (A+B condition). They found that Set B items were recalled more in the experimental group than the control

group. In addition, the experimental group recalled words in Set A less than the control group, although both groups saw the words in Set A once. The findings suggest that facilitation of recall of repeated (strengthened) items was accompanied by inhibition of recall of nonrepeated (nonstrengthened) items. Several researchers have replicated this list-strength effect study, finding consistent results (e.g., Anderson, Bjork, and Bjork 1994; Ratcliff, Clark, and Shiffrin 1990).

The connection between strengthening and inhibition is also found in the part-list cueing inhibition paradigm (Slamecka 1968). After studying a list, participants were presented with some of the items from the list to be used as retrieval cues for the remaining items. Slamecka found that the remaining target items were less likely to be recalled relative to a control group that received no retrieval cues. Brown (1968) describes the inhibitive phenomenon as strong associations blocking weaker ones. In a marketing context, Alba and Chattopadhyay (1985) demonstrated that the presentation of two brand names as cues in a product category (e.g., shampoo) inhibits recall of other brands in the category. In a follow-up study (Alba and Chattopadhyay 1986), increasing the salience of even a single brand by having participants think about the brand for a minute significantly impaired the participants' ability to recall competing brands. In the framework of strength-dependent competition models, cues (e.g., brand names) are considered strengthened items. That is, the cued brands make themselves salient to the point that they block participants' ability to remember other noncued competing brands.

The most popular mechanism for the inhibitive effect may be the one provided by Rundus (1973), who proposed the sampling-with-replacement model. The model suggests that when a strong item is recalled from a search set, its representation is strengthened and the item is more likely to be sampled again. Because items not-yet-recalled are correspondingly less likely to be sampled in a given moment, the recallability of the remaining items is decreased. In the list-strength paradigm, strengthened items are recalled earlier than nonstrengthened items. Part-list cues may be functionally similar to previously (or earlier) recalled strengthened items.

Based on the literature, we predict that publicized brands will inhibit the recall of nonpublicized brands because publicized (strengthened) brands will block retrieving of other nonpublicized items. For such an inhibitive effect to occur, publicity followed by exposure to advertising should increase the memory of publicized brands (Jin 2003); thus, those publicized brands should be recalled in earlier sequences during a recall test (Rundus 1973). We therefore hypothesize that in a recall protocol, as compared with those who are exposed to ads only, those who are exposed to publicity and ads will recall (1) publicized brands *more,* (2) nonpublicized brands *less,* and (3) publicized brands *earlier.*

INHIBITIVE EFFECT OF PUBLICITY IN RECOGNITION MEMORY

In a free recall test, participants are given a set of information and then, at a later time, are asked to retrieve that information without any aid. In a recognition test, participants are given a list of cues to determine whether they have previously been exposed to the stimuli. In a typical "yes-no" recognition scenario, test items consist of "old" items and "new" items. Items that were presented during the study phase are known as "old" items, and items not shown are referred to as "new" items, often known as "lures" or "distractors." With the "yes-no" method, responding "old" ("yes") when the item is "old" is called a "hit," and responding "old" ("yes") when the item is "new" is called a "false alarm."

The hit rate alone cannot reflect the ability to discriminate between "old" and "new" items, because false alarm rates can vary even when hit rates are equal. One of the most common ways to measure the discriminability (or sensitivity) is d', that is, the standardized distance between the means of the "new" distribution and the "old" distribution from signal detection theory (Green and Swets 1966). The larger the difference between the distributions (larger discriminability), the larger d' is. The recognition sensitivity measure (d') is a commonly used measure in the list-strength paradigm.

Empirical findings in the list-strength paradigm illustrate that there is a consistent inhibitive effect in free recall. In several experiments, however, Ratcliff, Clark, and Shiffrin (1990) did not find an inhibitive effect for recognition memory. Strengthening memory traces with some items did not impair recognition of other related nonstrengthened items. Several other studies replicated this null inhibitive effect for recognition memory (e.g., Murnane and Shiffrin 1991; Norman 2002; Rose and Sutton 1996; Yonelinas, Hockley, and Murdock 1992).

The findings of the null effect were a watershed event because most global models of recognition predict that increasing list-strength should impair recognition of nonstrengthened items (see Shiffrin, Ratcliff, and Clark 1990 for a review). The striking contrast of recall versus recognition cannot be attributed to differences in encoding or storage, since the type of test (recall versus recognition) is unknown until testing begins. Any explanatory mechanism should be related to differential retrieval processes. Free recall involves memory search with a context cue related to the learning situation or a context cue plus an item already recalled, whereas the memory probe cues in recognition consist of a context cue plus test-item cues (Gillund and Shiffrin 1984). When test-item cues are not available (e.g., free recall), strengthened items will harm the recall of the remaining nonstrengthened items. This is the inhibitive effect that occurs in free recall.

A popular explanation for the null inhibitive effect in recognition may be the "differentiation" hypothesis proposed by Shiffrin, Ratcliff, and Clark (1990) and implemented later in the REM (Retrieving Effectively from Memory) model (Shiffrin and Steyvers 1997). The hypothesis posits that an inhibitive process might occur in recognition when the context cue(s) is activated by strengthened items. However, strengthened items' representations become increasingly distinct from the representations of other items. Then, the strengthened memory trace would help in recognizing the remaining list items during the test—hence, the *differentiation* hypothesis. These two opposing factors neutralize each other. If the two cues are combined together—the former (i.e., activation of context cue) predicts harm (decreasing d') and the latter (i.e., differentiation) predicts benefit (increasing d')—the net effect is to roughly cancel out, resulting in the null inhibitive effect.

Another factor related to d' is C, the measure of criterion placement when applying signal detection theory to recognition memory. Criterion placement refers to the minimum level of certainty required for a participant to say "yes" in a "yes-no" recognition task. During testing, participants are assumed to set a decision criterion along the familiarity axis. Any test item with a familiarity value above the criterion is judged to be "old" ("yes"); otherwise, the item is judged to be "new" ("no"). When d' is equal, criterion placements in the two groups can be different.

Generally, in the signal detection framework, criterion shifts as an old item's familiarity increases (i.e., when strengthened). Because the strengthened item generates a strong sense of prior occurrence during the test, participants set a higher decision criterion before declaring a test item to be "old" (Hirshman 1995; Stretch and Wixted 1998). The range model (Parducci 1984) claims that participants estimate a range of familiarity values during the test and the criterion decision is set between high and low endpoints. Given that strengthened items are easily recalled and/or more familiar, participants use a higher endpoint on the range than when all items are not strengthened. Consequently, participants who are exposed to strengthened items have a larger range and are more likely to use a higher criterion. Hirshman's (1995) meta-analysis of previous list-strength experiments, as well as his own experiments, supported the changes in decision criterion as the list-strength was manipulated.

Based on the differentiation hypothesis (Shiffrin and Steyvers 1997; Shiffrin, Ratcliff, and Clark 1990) and previous empirical findings (Murnane and Shiffrin 1991; Rose and Sutton 1996; Yonelinas, Hockley, and Murdock 1992), we predict that publicity will not inhibit the recognition of other advertised brands that are not mentioned via publicity. Thus, those who are exposed to both publicity and ads will

have the same level of recognition sensitivity (d') for unpublicized brand ads as those who are exposed to ads only. Based on the range model (Parducci 1984) and Hirshman (1995), we hypothesize that those who are exposed to both publicity and ads will have a higher criterion placement than those who are exposed to ads only.

METHOD

In general, exposure to publicity about ads and ads themselves does not occur simultaneously, although consumers are occasionally exposed to publicity and ads at the same time on the Internet. Furthermore, consumers do not always use brand information immediately after publicity or ad exposure. In both cases, time lags exist between exposure and use. Accordingly, our study design incorporates a substantial time lag between two exposures (publicity and ads) and a long-term memory test. Some researchers argue that too much advertising research is conducted in the laboratory and movement into the field would be beneficial for ecological validity (Lutz 1996; Wells 1993). These considerations led to our study design, whose outline is illustrated in Figure 1.

Procedure

Experiments were conducted in six different classes at a major Midwestern university. The experimental procedure replicated Jin's (2003) study. Proctors followed detailed written directions to ensure that testing procedures in all the sessions were identical. In the experimental group, which was randomly selected, some brands that would later appear during the Super Bowl game were preexposed in Phase 1 (January 30, 2004). The control group was not exposed to the stimulus. Instead, the group was given a story that was not related to advertising. To make our discussion concise, we call those brands mentioned in the publicity "Set A (publicized brands in the experimental stimulus)." We refer to all other brands that appeared in the Super Bowl game but were not in Set A as "Set B (nonpublicized brands)." Thus, the total of Set A and Set B consists of all brands with commercials during the Super Bowl game.

In Phase 1, the proctors instructed participants when to begin, when to stop, when to turn the page, and not to talk during the experiment. After every participant had received the stimulus and an attitude/demographics questionnaire, the proctor asked the participants to write down the last four digits of their student identification number as an entry for a prize drawing. The proctors told participants that the purpose of the study was to examine attitudes toward a news story; the real purpose of the study was not revealed. Two minutes after the participants began reading the story, they were told to stop. A pretest showed that students needed approximately

two minutes to finish the story. Demographics and attitude toward the news were then measured. The proctors did not mention that an additional survey, including a memory test on the Super Bowl ads, would be conducted after the Super Bowl game.

In Phase 2, respondents watched the Super Bowl and the associated ads in a natural setting. Participants did not anticipate subsequent memory tests of the ads, and they watched the game and ads in their natural environments. In Phase 3, a different proctor visited the class to reduce participants' association between the two events (i.e., Friday and Monday). The participants received instructions similar, but not identical to, the first session. Having received the questionnaire booklet, the proctor asked participants to write down their ID number. After the memory test, other measures followed. We matched Friday and Monday measures with student IDs. Participants were tested for either recall *or* recognition of brands. The outcomes of recall and recognition for Set A and Set B in the two groups were subsequently compared. Psychology literature offers conflicting evidence about participants taking recall and recognition tests together (i.e., a recall test prior to a recognition test). Some studies show that prior recall affects subsequent recognition, whereas others indicate no effect (see Singh, Rothschild, and Churchill 1988 for references). Because recall versus recognition was one of our research interests, we collected the recall and recognition measures from different samples.

Target Stimuli

The focal stimulus was a single-page layout (8.5 × 11 inches) constructed to look like a magazine article (see Appendix). The stimulus news story for the experimental group was modified from actual news articles about Super Bowl ads that were published in *Advertising Age* and daily newspapers. The story consisted of a headline and body that depicted the descriptions of advertisements for four different brands: Cialis, IBM, Gillette, and Staples. Information about each brand's ad was subtitled over two paragraphs of text.

Several factors guided the selection of the four brands. We sought to minimize the opportunity for the formation of item-to-item associations by selecting brands in different product categories. Based on the previous Super Bowl ad list, we did not include brands that frequently appeared (e.g., Budweiser). We knew how many times and when (i.e., first quarter, second quarter, etc.) each ad would be shown during the game from the published article in *Advertising Age.* To control ad repetition, we selected brand ads that would be aired only once. To reduce primacy and recency effects, brands in the first and last quarters of the game were not included. The ads for the four selected brands were shown during the commercial breaks in the second and third quarters of the Super Bowl game. Item

FIGURE 1
Schematic Outline of Study
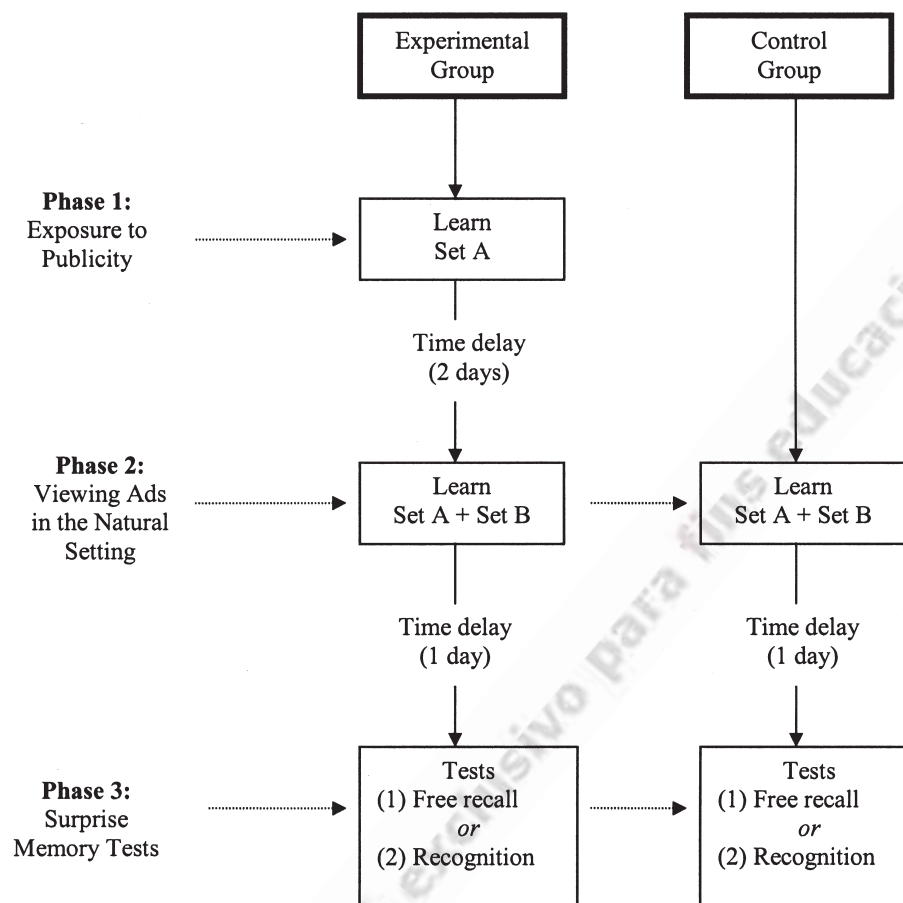
orders in the stimulus were partially counterbalanced with eight different versions.

Measurements

In the first section of the questionnaire, we asked the respondents to report whether they watched the game and, if so, what portion they watched (i.e., first quarter, second quarter, etc). For the free recall, we asked them to list on a blank sheet of paper as many brand names as they could recall from the Super Bowl game. To identify the sequence of recalled items, 10 horizontal lines were prepared on the sheet. For those receiving the recognition test, we used a forced "yes versus no" method. A total of 16 test items consisted of 8 "old" and 8 "new" items. "Old" items appeared during the game, while "new" items (distractors or lures) did not. All "new" items were familiar brands within some different product categories. Participants were given 10 minutes to finish the memory tests.

We could not control each participant's behavior and/or environment after the treatment (i.e., exposure to publicity).

Most important, we could not exclude the possibility that participants in the control group might have been exposed to the stimuli brands during the time period of this study. Thus, we directly asked participants in the control group a question about their exposure to any news stories about the four brands in the stimulus news story, that is, Set A brands, before/after the Super Bowl game.

In addition, several covariates were considered. Viewing the Super Bowl game is often a social event. People might watch the game alone or with others (variable: *people*) at home or elsewhere (variable: *place*). For *people* and *place,* we asked, "How many people watched the Super Bowl game with you?" and "Where did you watch the Super Bowl game?" People often watch the game while drinking alcoholic beverages (*alcohol*) and many viewers talk about the ads before, during, and/or after the game (*discussion*). The *alcohol* variable was measured with a seven-point scale by asking, "How much did you drink alcoholic beverages while you watched the broadcast?" ("1": not at all; "7": more than usual). To measure *discussion,* we asked three separate questions with a seven-point scale, "How often

did you discuss the Super Bowl ads before/during/after the Super Bowl game? ("1": not very often; "7": very often).

Furthermore, we assumed that a certain proportion of the sample would be exposed to news about the Super Bowl ads other than stimulus news material before and/or after the game (*prenews/postnews*). For *prenews,* participants in the control group were asked, "Before the Super Bowl game, did you read, hear, or see any news coverage about any advertisements that appeared in Sunday's Super Bowl game?" Participants in the experimental group were asked the same question, but were instructed not to include the news story they read in class the previous Friday. For *postnews,* we asked all participants, "Since the Super Bowl game, have you read, heard or seen any news coverage about any ads that appeared in Sunday's Super Bowl game?" A binary scale—"yes" or "no"—was used.

RESULTS

Respondents were included if they watched at least the second and third quarters of the game. Some participants in the control group reported that they heard/saw/read at least one brand of the stimuli brands (10 cases; 6.6%). We excluded those cases for statistical analyses. Total sample size was 312. The data show that watching other segments of the game was not different between the experimental and control groups: the first quarter (76% versus 81%; χ^2 = .33; p > .56) and the fourth quarter (91% versus 87%; χ^2 = 1.2; p > .20). The final sample showed that the experimental group had more males (65%) than the control group (56%). Thus, we added *gender* as a control variable. The average age of participants was 21.

Facilitation and Inhibition in Recall

In the recall test, 34 brand names out of 635 total items were falsely recalled, amounting to 5% of total items recalled. No systematic group differences were found for false recall. We created two sets of variables in recall: Set A (brands in the publicity) and Set B (brands that were not in the publicity). Because the purpose of the study was concerned with overall memory performance rather than the impact of any specific individual brand, the results reported are based on each participant's aggregate score. The independent variable, *publicity,* was dummy-coded (experimental group: "1"; control group: "0"). We ran separate hierarchical regressions for Set A and Set B controlling for *gender, place, people, alcohol, discussion, prenews,* and *postnews.* The reported regression results in Table 1 do not include the nonsignificant control variables (i.e., *gender, place, people,* and *alcohol*).

For both Set A and Set B, *discussion* was significant. The more participants discussed the ads, the higher the brand recall. Neither *prenews* nor *postnews* was related to recall of Set A, whereas both significantly influenced Set B brands. These findings provide extra evidence for the positive effect of publicity on recall. The results for Set A suggested that the four brands might not have had heavy news coverage, a factor that might have otherwise affected the results to some degree.

T tests without the control variables showed that the average recall for Set A was higher in the experimental group than the control group ($M_{\text{experiment}}$ = .62, SD = .73; M_{control} = .13, SD = .34; t = 5.93; p < .001). As we expected, the experimental group had lower recall for Set B ($M_{\text{experiment}}$ = 2.79, SD = 1.43; M_{control} = 3.41, SD = 2.03; t = −2.08; p < .04). The total number of brands in Set A and Set B were not equal (Set A < Set B). Set A consisted of four brands, whereas Set B included all other brands in the Super Bowl broadcast (57 brands, including local ads). The different number of brands in Set A and Set B explains why the overall recall for Set A was much lower than that of Set B.

When the control variables were included in the regression analyses, group mean values changed slightly because those control variables took some variance of dependent measures. No significant differences were observed, however. As indicated in Figure 2, the experimental group had a .45 higher average recall score than the control group for recall of Set A brands ($M_{\text{experiment}}$ = .61; M_{control} = .16; β = .45; t = 4.32; p < .001; R^2 = 9.4%). For recall of Set B brands, the experimental group had a .56 lower average score than the control group ($M_{\text{experiment}}$ = 2.81; M_{control} = 3.37; β = −.56, t = −2.05; p < .03; R^2 = 2.3%). To understand the mechanisms of such effects, the experimental group should recall those publicized brands (Set A) earlier than the control group. Analysis supported this notion (see Table 2). About 11% of the participants in the experimental group recalled brands from Set A first in the sequence of recall, whereas only 1.5% of the control group did. A similar pattern was observed for the second (15.3% versus 1.5%) and third (17% versus 6%) items recalled.

Recognition Sensitivity

Initial regression analysis showed that none of the control variables were significant except for *gender.* Table 2 presents the results for the "yes-no" recognition test after controlling for *gender* in the analysis. Hit rate, false alarm rate, and d' are given for each condition. We calculated the hit rate (H) as the number of hits divided by the number of "old" items. The false alarm rate (FA) was calculated as the number of false alarms divided by the number of "new" items. Given a hit rate (H) and a false alarm rate (FA), d' (sensitivity) was calculated as: d' = z (H) − z (FA), where z (x) was the z-transformation. Because d' cannot be calculated when there are hit or false alarm rates of 1 or 0, those perfect rates were converted to .99 and .01, respectively (Hirshman 1995). As expected, the analysis of d' indicates that the experimental group recognized the publicized brands (Set A) better than the control group

TABLE 1
Recall Performances: Multiple Regression Analyses

	Set A			Set B		
	Unstandardized coefficient	**Standardized coefficient**	**t**	**Unstandardized coefficient**	**Standardized coefficient**	**t**
Constant	−.17		−1.3	2.16		6.38***
Control block						
Prenews	.06	.04	.46	.66	.16	2.31*
Postnews	.14	.10	1.35	1.04	.29	4.13***
Discussion	.08	.19	2.62**	.19	.18	2.69*
Independent: Publicity	.45	.32	4.32***	−.56	−.16	−2.05*
R^2 of control block (%)		7.9**			19.6***	
ΔR^2 due to independent (%)		9.4**			2.3*	
Total R^2 (%)		17.3			21.9	

* $p < .05$.

** $p < .005$.

*** $p < .001$.

FIGURE 2
Recall Performance for Set A and Set B

Set A (Publicized Brands)

Set B (Other Nonpublicized Brands)
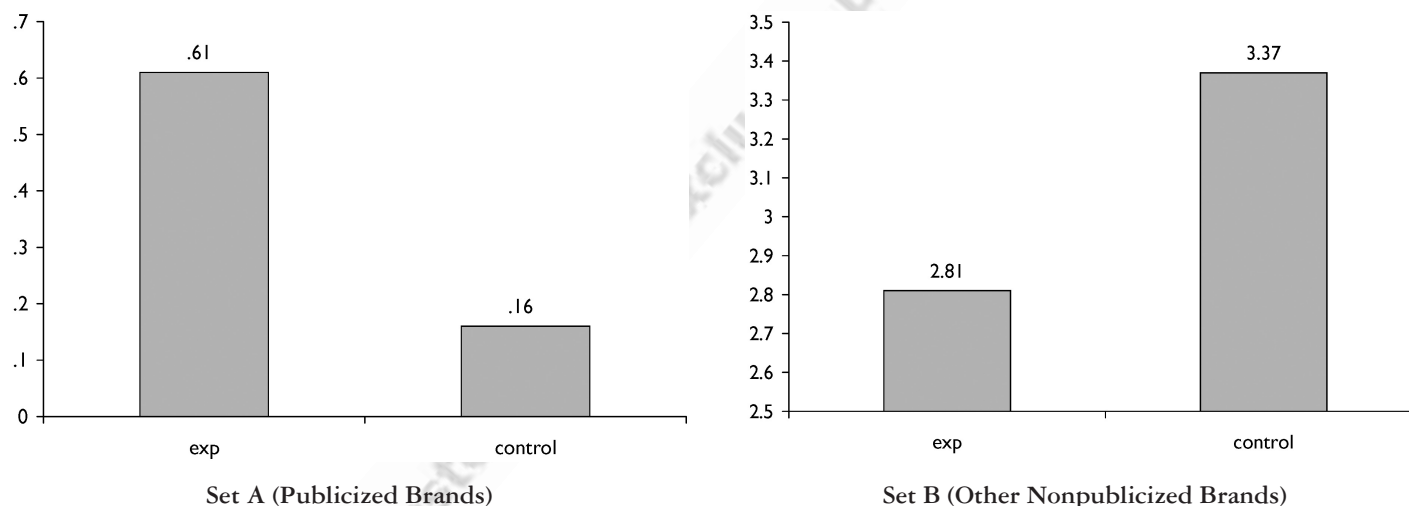
($M_{\text{experiment}} = 1.57$; $M_{\text{control}} = .08$; $t = 6.97$; $p < .001$). However, the group difference for Set B was not significantly different ($M_{\text{experiment}} = .71$; $M_{\text{control}} = 1.00$; $t = -1.51$; $p > .13$), replicating the null list-strength (inhibitive) effect. The nonpublicized brands in the experimental group were recognized as well as they were in the control group.

Criterion Shift and Nonparametric Measures

As predicted, our analysis shows that C (criterion placement) was greater in the experimental group than in the control group (.04 versus −.21, $t = 2.96$, $p < .005$). The higher criterion in the experimental group suggested that the participants had a conservative response bias—a tendency to identify more "old" items as "new." The criterion shifts produced a greater hit rate for Set B in the control group than the experimental group (.70 versus .59; $t = -3.27$; $p < .003$), but false alarm rates were not significantly different, although the expected direction was found (.36 versus .40; $t = -1.13$; $p > .26$). Decision criterion, C, was calculated as: $C = -[z(H) + z(FA)]/2$. Two measures, d' and C, from signal detection theory assume that the variance of the two distributions ("old" and "new") is the same and the distributions are normal. Nonparametric measures such as A' and B'' (analogue to d' and C, respectively) do not require those assumptions and can calculate the perfect hit or false alarm rate. We conducted follow-up analyses with

TABLE 2
Sequence of Publicized (Set A) Brands Recalled

Sequence	Experimental group	Control group
First	11.3%	1.5%
Second	15.2%	1.5%
Third	17.4%	6.0%
Total	43.9%	9.0%

TABLE 3
Recognition Sensitivity and Criterion Placement

	Experimental group	Control group	t
Hit rate	.59	.70	−3.27**
False alarm rate	.36	.40	−1.13
d'	.71	1.00	−1.51
C	.04	−.21	2.96**
A'	.45	.43	1.36
B''	0	−.18	2.38*

* $p < .05$.

** $p < .01$.

A' and B'' (see Stanislaw and Todorov 1999 for the formulas). The results with the nonparametric measures were equivalent to the results with d' and C (see Table 3). No group differences were found for Set B in A' (.43 versus .45; $t = 1.36$; $p > .18$), while B'' was significantly higher in the experimental group (−.18 versus 0; $t = 2.38$; $p < .03$).

DISCUSSION

In an earlier study, Jin (2003) reported a facilitative role of publicity. That is, preexposure of publicity about advertising campaigns increases the memory of the subsequently advertised brands. While our study replicated the facilitative effect, the main purpose of the current study was to examine an additional potential effect of publicity: an inhibitive role. We asked whether preexposure to publicity on advertising campaigns about brands can suppress retrieval of other nonpublicized brands that otherwise would have been retrieved.

Our results suggest that strengthened memory traces created from publicity have some distinctive characteristics in free recall. People who received publicity recalled the brands both *more* frequently and *earlier* than those individuals who were not exposed to publicity. More important, those in the experimental group recalled brands that were not in the publicity significantly *less.* The overall average recall score of the experimental group was not different from that of the control group. This result suggests that the recall of salient items with more "memory strength" occurs at the expense of less salient items. Free recall has two properties: asymptotic recall and rate of approach to asymptote (Wixted and Rohrer 1994). We allotted what we believed to be adequate time (based on a pretest) for the recall performance to reach asymptotic levels. The poorer recall performance of Set A (Set B) in the control (experimental) group cannot be attributed to the possibility that it had not yet reached asymptote, since the recall test ceased before the time limit expired. The inhibitive effect was not found in recognition, however. The results of a null inhibition effect in recognition are in agreement with previous research (Murnane and Shiffrin 1991; Ratcliff, Clark, and Shiffrin 1990; Yonelinas, Hockley, and Murdock 1992) that reported the absence of an inhibitive effect.

In a field study to investigate the effects of publicity about advertising, Jin, Zhao, and An (2006) found that publicity effects were much stronger in recall than in recognition. Our study provides a theoretical account for the weaker effect in recognition. As found in our study, the preexposure of publicity involves two distinct but related effects in memory: facilitation for the publicized brands and inhibition for the nonpublicized brands. The recall measure in Jin, Zhao, and An (2006) might have reflected the inhibition that provided the publicized brands with an additional benefit to the facilitation. However, such inhibition would not have occurred in the recognition measure, although publicity had a facilitative effect. Consequently, publicity effects would be stronger in recall.

An intriguing finding is related to criterion placement in recognition tests, a central component of decision processes. Some brands strengthened by publicity can make consumers use a higher decision criterion on nonstrengthened brands. The criterion shift in the experimental group was related to a lower hit rate for nonpublicized brands because those participants demonstrated a conservative response bias; that is, they were more reluctant to say "yes" to those brands. Although overall recognition performance, d' and A', did not differ, criterion shift might have some implications in a marketing context. When a brand receives extra publicity in addition to advertising, consumers might be less willing to judge what they saw or heard about other brands' information as "old" (e.g., "That is not what I saw."). Of course, this is not the inhibitive effect. Criterion shift, however, is still effective for those publicized brands.

In previous studies on the inhibitive effect, memory tests followed immediately after a study phase or after a maximum delay of 20 minutes. Such immediate tests were deemed necessary to generate recall inhibition effects. One contribution of our study is to establish the validity of the inhibitive effect in a long-term memory scenario. Furthermore, the current study could minimize two possible confounding effects that are frequently observed in memory literature. When participants are

informed of a follow-up memory test in advance and are aware of the vulnerability of weak (nonstrengthened) items in a recall test, the memory literature illustrates that participants tend to use two strategies, resulting in confounding artifacts. One is "rehearsal borrowing," which refers to participants' rehearsal of weak items at the expense of stronger (strengthened) items. The other is "cognitive triage." When a recall test begins, participants first try to recall weak items before they are lost (Brainerd 1995). The incidental learning condition and unexpected memory test in the current study may have excluded the possibilities of these two confounding effects because there was no motivation to use those strategies.

Our findings suggest that the benefits of publicity go beyond what marketing professionals and academicians have anticipated and found (Harris 1998; Jin 2003; Ries and Ries 1999; Yates 1995), that is, the *facilitative* effect. Another effect as a by-product—*inhibition*—exists because strengthening a brand memory results in inhibiting memory of other related brands as far as the free recall paradigm is concerned. The publicity effects reported in this study indicate that using a preannouncement to kick off an advertising campaign can enhance the efficiency and effectiveness of the campaign. Our study is particularly relevant in light of increasing interest in IMC, which seeks potential synergy effects using various marketing communication tools (Belch and Belch 2004; Lutz 1996; Naik and Raman 2003; Schultz, Tannenbaum, and Lauterborn 1992; Shimp 2003; Stammerjohan et al. 2005; Thorson and Moore 1996).

According to Janiszewski, Noel, and Sawyer (2003), an optimal repetition strategy involves intentional processing during one presentation and incidental processing in another. They posit that a combination of elaborated and unelaborated processing of a stimulus results in better memory. The process of encoding news usually requires active participation by the audience, that is, it is more likely to be intentional processing. The typical television commercial exposure, on the other hand, is mostly incidental processing. In this sense, the value of publicity is to create an environment where intentional learning occurs. Publicity can therefore be an important first step in developing IMC.

Previous research demonstrates that consumers often have difficulty linking advertising messages to brand names (e.g., they remember elements of an advertising execution, but cannot remember the advertised brand name or identify a brand correctly), particularly in highly competitive advertising environments (Burke and Srull 1988; Kent and Allen 1994). To reduce this problem, Baker, Honea, and Russell (2004) suggest that advertising is more effective when a brand name is presented at the beginning of an advertisement rather than at the end, because knowing the brand name earlier in an ad strengthens the memory association between the brand name and ad content. Preexposure to publicity about advertising may produce a similar cognitive effect: Prior knowledge of brand ads from the publicity increases "brand-centered information processing" when consumers are exposed to publicized ads. This increase, in turn, results in more accurate advertised brand recall.

A critical question arises: How to attract publicity? Advertisers have little control over publicity. However, substantial amounts of publicity about advertising campaigns are based on sources from public relations. Press releases and press conferences are prime ways in which news media find out about organizations' activities. Numerous studies indicate that the contribution of public relations activities to total news coverage is in the range of 40 to 70% (Lattimore et al. 1997). Thus, a necessary condition for media coverage—although it is not sufficient—is an active effort by advertisers to utilize marketing public relations (MPR). This effort includes distributing print news and/or video news release packages with teasers of commercials and interviews with spokespersons in the ads, enabling news media to put together their own segments and voice-overs (Harris 1998).

A related question for advertisers is what factors determine the likelihood of being publicized, because every effort made by advertisers to get publicity does not result in media coverage. Literature suggests that information must have some news value. News selection is a complex process that reflects various values, goals, and process factors. Shoemaker and Reese (1996) point out that newsworthiness involves timeliness, proximity, prominence, conflict, oddity, and human interest. In general, these values influence news selection by media gatekeepers. In an advertising context, Pasadeos, Phelps, and Lamme (2000) found two major categories of information that impact the newsworthiness of advertising campaigns: "its importance" or "how interesting it is." They suggest that PR efforts related to newsworthiness result in higher chances for advertising campaigns to be publicized. For example, Super Bowl advertising has news value because it is arguably the most visible advertising event of the year (e.g., stratospheric price tags, fun ads, etc.). Celebrity figures can also generate extensive publicity for endorsed brands by capturing media attention (Agrawal and Kamakura 1995; Erdogan, Baker, and Tagg 2001). Pasadeos, Phelps, and Lamme (2000) noted other examples frequently covered by the news media: launch of a new campaign, firing/hiring of an ad agency, size of ad budget, and so forth. To garner media attention, publicity specialists advise that a forthcoming ad should have an exploitable property such as exceptionally creative work, an unusual or innovative approach to advertising, an evolving story line, well-known cast members, or a musical interest ("No PR, No Comment" 1995). In sum, it is worthwhile to mention that (1) an ad campaign should have news value in it, and (2) an advertiser should actively engage in marketing public relations efforts. If there is no PR, there will be little or no publicity.

LIMITATIONS AND FURTHER RESEARCH

A recent study by Norman (2002) suggests that an inhibitive effect can be observed when recognition sensitivity is dominantly driven by recollection (i.e., remembering information) rather than familiarity. In a situation in which distractors (lures) are extremely similar to studied items, Norman made participants rely on recollection-based processing because familiarity does not help recognition. Norman's findings suggest that inhibitive effects might depend on how test items are selected. Using a single version of test items with a relatively easy test, our study did not examine this issue thoroughly. In addition, a recognition test is sensitive to how test items are presented (e.g., visual versus verbal; written versus auditory, etc.). The recognition test in this study used verbal brand names. This method has limitations to capture not only a broader, deeper range of memory traces, but also emotional impacts of ads on memory. We cannot exclude the possibility that publicity effects on advertised brand recognition will be different when the recognition is measured by showing actual ads. A visual recognition memory should be examined in future research.

We were limited in terms of brand selection due to several considerations in our design (e.g., controlling ad frequency and avoiding primacy/recency effects). It is likely that some products are more or less relevant to our sample. In addition, brand familiarity was neither properly addressed nor manipulated. We anticipated and controlled potential confounds statistically. Most of the covariates, however, were measured by a single item that remains open to reliability problems.

Our focal attention was to examine the publicity effects, controlling ad repetition (once) for both the experimental and control groups. We cannot predict whether we would observe the same results when participants are exposed to more than two repetitions of the target ads. It is plausible that the publicity effects would have diminishing power when ad repetitions increase (e.g., a ceiling effect). Also, this study does not show how exposure to publicity differs conceptually and empirically from advertising. For instance, a design in which a control group is exposed to ads at Time 1 and the same ads at Time 2 while an experimental group is exposed to publicity about ads at Time 1 and the ads at Time 2 may allow for an intriguing test of IMC strength. In such a design, we might be able to answer whether prior exposure to publicity causes a differential inhibitive effect compared with the prior exposure to a regular ad.

We make no claims about generalizability because the Super Bowl is a highly visible event and a special case within the advertising environment. Some people are willing to watch the ads even when they are not interested in the game. Moreover, the readers or viewers of news about Super Bowl ads know exactly when they will be seen. In most news stories about ad campaigns, people do not know when the ads featured in the news stories will be seen. Thus, our study does not show how publicity affects the information processing of ads when the ads are shown in an inattentive situation, that is, in a more typical low-involvement advertising commercial exposure situation (Krugman 1965). Our findings should be applied to other advertising contexts with caution. Although our study limits its value only to the Super Bowl context, practical implications would be significant given the fact that the Super Bowl is the most important advertising event of the year. In addition, our contribution as the first study on the inhibitive effect of publicity is that the effect does exist.

Nonetheless, publicity effects might not significantly differ in non–Super Bowl contexts. Lynch and Srull (1982) suggest that, compared to information that is expected to appear in a given context, information that is unexpected seems to capture one's attention more, is processed more extensively, and is subsequently more likely to be recalled. This has become known in the memory literature as the "von Restorff effect." When consumers happen to watch a commercial that they previously read, heard, or saw in the news, the ad might be more distinctive. Consequently, the ad captures consumers' attention more than other ads in the same commercial pod. If we assume that most Super Bowl ads, by the nature of the event, are given a similar level of attention by viewers, the von Restorff effect might be reduced for the brands that have received publicity. Thus, the inhibitive effect of publicity in a typical advertising context would not be invalid. Future research is needed to employ different controls and settings to improve generalizability (Cook and Campbell 1979; Wells 1993) and to determine boundary conditions.

REFERENCES

Agrawal, Jagdish, and Wagner A. Kamakura (1995), "The Economic Worth of Celebrity Endorsers: An Event Study Analysis," *Journal of Marketing,* 59 (July), 56–62.

Alba, Joseph W., and Amitava Chattopadhyay (1985), "Effects of Context and Part-Category Cues on Recall of Competing Brands," *Journal of Marketing Research,* 23 (August), 340–349.

———, and ——— (1986), "Salience Effects in Brand Recall," *Journal of Marketing Research,* 23 (November), 363–369.

Anderson, Michael C., Robert A. Bjork, and Elizabeth L. Bjork (1994), "Remembering Can Cause Forgetting: Retrieval Dynamics in Long-Term Memory," *Journal of Experimental Psychology: Learning, Memory, and Cognition,* 20 (September), 1063–1087.

Baker, William E., Heather Honea, and Cristel A. Russell (2004), "Do Not Wait to Reveal the Brand Name: The Effect of Brand-Name Placement on Television Advertising Effectiveness," *Journal of Advertising,* 33 (Fall), 77–85.

Belch, George E., and Michael A. Belch (2004), *Advertising and*

Promotion: An Integrated Marketing Communications Perspective, 6th ed., New York: McGraw-Hill.

Bettman, James R. (1979), "Memory Factors in Consumer Choice: A Review," *Journal of Marketing,* 43 (Spring), 37–53.

Brainerd, Charkes J. (1995), "Interference Processes in Memory Development: The Case of Cognitive Triage," in *Interference and Inhibition in Cognition,* Frank N. Dempster and Charles J. Brainerd, eds., San Diego: Academic Press, 105–139.

Brown, John (1968), "Reciprocal Facilitation and Impairment of Free Recall," *Psychonomic Science,* 10 (2), 41–42.

Burke, Raymond R., and Thomas K. Srull (1988), "Competitive Interference and Consumer Memory for Advertising," *Journal of Consumer Research,* 15 (June), 55–68.

Cook, Thomas D., and Donald T. Campbell (1979), *Quasi-Experimentation: Design and Analysis Issues for Field Setting,* Boston: Houghton Mifflin.

Ebbinghaus, Hermann ([1885] 1964), *Memory: A Contribution to Experimental Psychology,* trans. H. A. Ruger and C. E. Bussenius, New York: Dover.

Erdogan, B. Zafer, Michael J. Baker, and Stephen Tagg (2001), "Selecting Celebrity Endorsers: The Practitioner's Perspective," *Journal of Advertising Research,* 41 (May), 39–48.

Gillund, Gary, and Richard M. Shiffrin (1984), "A Retrieval Model for Both Recognition and Recall," *Psychological Review,* 91 (January), 1–67.

Green, David M., and John A. Swets (1966), *Signal Detection Theory and Psychophysics,* New York: Wiley.

Harris, Thomas L. (1998), *Value-Added Public Relations: The Secret Weapon of Integrated Marketing,* Lincolnwood, IL: NTC Business Books.

Hirshman, Elliot (1995), "Decision Processes in Recognition Memory: Criterion Shifts and the List-Strength Paradigm," *Journal of Experimental Psychology: Learning, Memory, and Cognition,* 21 (March), 302–313.

Janiszewski, Chris, Hayden Noel, and Alan G. Sawyer (2003), "A Meta-Analysis of the Spacing Effect in Verbal Learning: Implications for Research on Advertising Repetition and Consumer Memory," *Journal of Consumer Research,* 30 (June), 138–149.

Jin, Hyun Seung (2003), "Compounding Consumer Interest: Effects of Advertising Campaign Publicity on the Ability to Recall Subsequent Advertisements," *Journal of Advertising,* 32 (Winter), 29–41.

———, Xinshu Zhao, and Soontae An (2006), "Examining Effects of Advertising Campaign Publicity in a Field Study," *Journal of Advertising Research,* 46 (June), 172–182.

Kent, Robert J., and Chris T. Allen (1994), "Competitive Interference Effects in Consumer Memory for Advertising: The Role of Brand Familiarity," *Journal of Marketing,* 58 (July), 97–106.

Krugman, Herbert E. (1965), "The Impact of Television Advertising: Learning Without Involvement," *Public Opinion Quarterly,* 29 (Autumn), 349–356.

Lattimore, Dan, Otis Baskin, Suzette T. Heiman, Elizabeth L. Toth, and James K. Van Leuven (1997), *Public Relations: The Profession and the Practice,* 4th ed., New York: McGraw-Hill.

Lutz, Richard J. (1996), "Some General Observations About Research on Integrated Marketing Communications," in *Integrated Communication: Synergy of Persuasive Voices,* Esther Thorson and Jeri Moore, eds., Mahwah, NJ: Lawrence Erlbaum, 355–367.

Lynch, John S., Jr., and Thomas K. Srull (1982), "Memory and Attentional Factors in Consumer Choice: Concepts and Research Methods," *Journal of Consumer Research,* 9 (June), 18–37.

Melton, Arthur W. (1970), "The Situation with Respect to the Spacing of Repetitions and Memory," *Journal of Verbal Learning and Verbal Behavior,* 9 (October), 596–606.

Murnane, Kevin, and Richard M. Shiffrin (1991), "Interference and the Representation of Events in Memory," *Journal of Experimental Psychology: Learning, Memory, and Cognition,* 17 (September), 855–874.

Naik, Prasad A., and Kalyan Raman (2003), "Understanding the Impact of Synergy in Multimedia Communications," *Journal of Marketing Research,* 40 (November), 375–388.

"No PR, No Comment" (1995), *Marketing* (January 26), 37.

Norman, Kenneth A. (2002), "Differential Effects of List Strength on Recollection and Familiarity," *Journal of Experimental Psychology: Learning, Memory, and Cognition,* 28 (November), 1083–1094.

Parducci, Allen (1984), "Perceptual and Judgmental Relativity," in *Perspectives in Psychological Experimentation,* Viktor Sarris and Allen Parducci, eds., Hillsdale, NJ: Lawrence Erlbaum, 135–149.

Pasadeos, Yorgo, Joe Phelps, and Opdycke Lamme (2000), "Newspaper Coverage of Advertising: The Unfolding Story," in *Proceedings of the 2000 Conference of the American Academy of Advertising,* Mary Alice Shaver, ed., East Lansing: Michigan State University, 79–89.

Ratcliff, Roger, Steven E. Clark, and Richard M. Shiffrin (1990), "List-Strength Effects: I. Data and Discussion," *Journal of Experimental Psychology: Learning, Memory, and Cognition,* 16 (March), 163–178.

Ries, Al, and Laura Ries (1999), "First Do Some Great Publicity: Building a Brand Takes More than a Big Burst of Advertising Dollars," *Advertising Age* (February 8), 42.

Rose, Robert T., and Lavinia T. Sutton (1996), "Encoding Conditions and the List-Strength Effect," *Canadian Journal of Experimental Psychology,* 50 (September), 261–268.

Rothenberg, Randall (1990), "Commercials Become News and the Airtime Is Free," *New York Times* (January 8), D1.

Rundus, Dewey (1973), "Negative Effects of Using List Items as Recall Cues," *Journal of Verbal Learning and Verbal Behavior,* 12 (February), 43–50.

Schultz, Don E., Stanley I. Tannenbaum, and Robert F. Lauterborn (1992), *Integrated Marketing Communications,* Lincolnwood, IL: NTC Publishing Group.

Shiffrin, Richard M., and Mark Steyvers (1997), "A Model for Recognition Memory: REM—Retrieving Effectively from Memory," *Psychonomic Bulletin and Review,* 4 (June), 145–166.

———, Roger Ratcliff, and Steven E. Clark (1990), "List-Strength Effects: II. Theoretical Mechanism," *Journal of Experimental Psychology: Learning, Memory, and Cognition,* 16 (March), 179–195.

Shimp, Terence A. (2003), *Advertising, Promotion, and Supplemental Aspects of Integrated Marketing Communications,* Mason, OH: Thomson.

Shoemaker, Pamela J., and Stephen D. Reese (1996), *Mediating the Message,* White Plains, NY: Longman.

Singh, Surendra N., Michael L. Rothschild, and Gilbert A. Churchill, Jr. (1988), "Recognition Versus Recall as Measures of Television Commercial Forgetting," *Journal of Marketing Research,* 25 (February), 72–80.

Slamecka (1968), "An Examination of Trace Storage in Free Recall," *Journal of Experimental Psychology,* 76 (April), 504–513.

Stammerjohan, Claire, Charles M. Wood, Yuhmiin Chang, and Esther Thorson (2005), "An Empirical Investigation of the Interaction Between Publicity, Advertising, and Previous Brand Attitudes and Knowledge," *Journal of Advertising,* 34 (Winter), 55–67.

Stanislaw, Harold, and Natasha Todorov (1999), "Calculation of Signal Detection Theory Measures," *Behavior Research Methods, Instruments, and Computers,* 31 (February), 137–149.

Stretch, Vincent, and John T. Wixted (1998), "On the Difference Between Strength-Based and Frequency-Based Mirror Effects in Recognition Memory," *Journal of Experimental Psychology: Learning, Memory, and Cognition,* 24 (November), 1379–1396.

Thorson, Esther, and Jeri Moore (1996), Introduction to *Integrated Communication: Synergy of Persuasive Voices,* Esther Thorson and Jeri Moore, eds., Mahwah, NJ: Lawrence Erlbaum, 1–10.

Tulving, Endel, and Reid Hastie (1972), "Inhibition Effects of Intralist Repetition in Free Recall," *Journal of Experimental Psychology,* 92 (March), 297–304.

Wells, William D. (1993), "Discovery-Oriented Consumer Research," *Journal of Consumer Research,* 19 (March), 489–504.

Wixted, John, and Doug Rohrer (1994), "Analyzing the Dynamics of Free Recall: An Integrative Review of the Empirical Literature," *Psychonomic Bulletin and Review,* 1 (May), 89–106.

Yates, Karen (1995), "Making News: Press Coverage of Advertising Campaigns," *Campaign* (May 26), 36.

Yonelinas, Andrew P., William E. Hockley, and Bennet B. Murdock (1992), "Tests of the List-Strength Effect in Recognition Memory," *Journal of Experimental Psychology: Learning, Memory, and Cognition,* 18 (March), 345–355.

APPENDIX

Super Ads for Super Bowl XXXVIII

Twenty years after the Super Bowl first became as big a day for advertising as it is for professional football, Madison Avenue is gearing up for what looks to be a cheerier, somewhat sillier and certainly more expensive version of the annual midwinter festival of commercialism. The Ad Bowl within Super Bowl XXXVIII, to be broadcast on Sunday by CBS, will be infused with oversized servings of ingredients like humor, schmaltz, special effects and anthropomorphic animals. Here is a preview of some of the contenders for this year's advertising battle.

Cialis: Cialis's ad has an odd setting for romance. In separate bathtubs, overlooking a coastal vista, a middle-aged couple lounge naked. But, there's a spark within this surreal landscape. The woman reaches out to lightly caress a masculine wrist. But don't worry, said Leonard Blum, vice president for Cialis. "They don't get out of the bathtubs."

The ad will clearly state what the drug treats. Cialis is getting specific because it wants to draw attention to what it considers its advantage. The ad will highlight Cialis' 36-hour window of effectiveness, versus the competitor's shorter efficacy period. After the Super Bowl, Cialis plans to continue the ad campaign on prime-time shows on the major networks, including PGA Tour telecasts. Print ads consistent with the TV spots will begin appearing in national outlets.

Staples: "Staples' ad is a comic dramatization of an office that has a flawed supply distribution process," said Shira Goodman, vice president of marketing for Staples. The Staples' commercial depicts the title character, Randy, in the role of an office supply manager who despicably uses his position to take advantage of his co-workers. In order to get file folders, ink cartridges and paperclips from Randy, the office workers must abide by a policy of "baked goods as currency."

Workers learn that they need to "give a little to get a little," but one co-worker is pushed too far. After discovering Staples as an easier method to obtain office supplies, he turns the tables on Randy with a little help from "tough guy" Joe Viterelli. The goal is to humorously and clearly deliver Staples' strategy of "easy" within the context of other Super Bowl advertising.

IBM: Muhammad Ali is still a revered figure in the sports world, and now he is a major part of IBM's last-minute entry in the Super Bowl of Advertising. IBM has spent big bucks and it has decided to cough up a couple million dollars to reach the massive Super Bowl audience. Unlike the many humorous spots that are sure to be on offer during the game, the IBM commercial goes for the emotional punch instead.

We see the young boy sitting in a chair in a stark white setting staring intently at a television screen on which appears vintage footage of Ali in his prime boasting about shaking up the world. Suddenly, we see the real Ali, as he is today, sitting opposite the young boy and delivering the same message in person. He is surely a symbol of perseverance, and that, we assume, is the chief message IBM wanted to convey.

Gillette: Gillette's fast-paced commercial uses far less traditional imagery than before; the men are younger, for instance, and there are many more models who are neither blond nor white. In the new Gillette's ad, the script that is read by a voice-over announcer, as well as the lyrics of a jingle heard in the spot, are much more conversational, colloquial and casual than in Gillette's previous commercials.

"It's a guy trying to express to other guys what it's like to feel great," said Al Merrin, creative director at BBDO New York. He added, "It's more contemporary, sexy, and the images are a lot more inclusive; you don't have to be the perfect guy." Mr. Merrin said the goal for Gillette advertising was twofold: to convince men that Gillette is "the best at what it does, product-wise; and to make the brand emotionally acceptable and likable."