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## **INTEGRATING PLACEMENT AND AUDIENCE CHARACTERISTICS TO ASSESS THE RECALL OF PRODUCT PLACEMENTS IN FILM: FINDINGS FROM A FIELD STUDY**

*Etienne Bressoud, Jean-Marc Lehu, Cristel Antonia Russell*

### **ABSTRACT**

This research incorporates into a single model characteristics of product placements in films and characteristics of the consumers and their viewing environment to assess the memorability of the placements. Eleven movies containing a total of 98 placements of varied characteristics were coded. 3,532 individuals who viewed a DVD rental of one of these movies at home completed a questionnaire on the following day. The questionnaire included audience viewing characteristics as well as a free recall measure of placements. The results reveal important insights into the variables that affect, positively or negatively, the day after recall of products placed in movies.

### **INTRODUCTION**

The last fourteen years have witnessed an exponential increase in the academic literature on product placements and their effects on consumers. Since Nebenzal and Secunda's 1993 article in the *International Journal of Advertising* and Balasubramanian's *Journal of Advertising* article on hybrid advertising in 1994, no less than 31 scientific articles on product placement have appeared in the leading marketing and advertising journals, including thirteen in the last two years alone (Proquest, 2008). Some research has focused on consumers' attitudes toward the practice of product placement, but most has addressed the cognitive and persuasive implications of product placements, by investigating their impact on memory and brand attitudes.

The most widely used measure of product placement effectiveness is memory, specifically explicit memory, a common indicator in both industry (Karrh, 1995; Karrh, Brittain McKee, and Pardun, 2003; Russell and Belch, 2005) and academic studies (d'Astous and Chartier, 2000; Babin and Carder, 1996; Karrh, 1998; McCarty, 2004; Ong and Meri, 1994; Yang, Roskso-Ewoldsen, and Roskos-Ewoldsen, 2004). The extant research suggests that memory for products placed in a movie should be a function, not just of the execution characteristics of the placement, but also of audience characteristics (Lehu and Bressoud, forthcoming). Although previous research has identified many placement variables as having an impact on the recall of placed brands (Balasubramanian, Karrh, and Patwardhan, 2006), little research to date has integrated those with characteristics of the viewer and his/her viewing environment in a single model.

This research focuses on product placements in film and their impact on viewers' explicit memory. It incorporates into a single model characteristics of the product placements in the film and characteristics of the consumers and their viewing environment. The synergy of a stimulus-side analysis of placements in a range of films and a large scale response-side investigation of viewers' day after spontaneous recall of placements provides a novel and insightful assessment of product placement effectiveness in a real viewing environment.

## THEORETICAL MODEL

The theoretical model integrates several characteristics of the placements outlined in previous research that should impact how they are processed and thus their memorability and characteristics linked to the consumer and the viewing environment that are also likely to impact the viewers' recollection of the placements.

### **Placement Characteristics**

Previous research has indicated that a placement's prominence has a positive impact on the recall of the placed brand (Gupta and Lord, 1998; Brennan, Dubas and Babin, 1999; d'Astous and Chartier, 2000). There are several variables that can affect prominence and that are therefore expected to benefit recall: the total duration of exposure of the placement (H1), whether the placement is centrally located on the screen (Lehu, 2005) (H2), the amount of the screen taken up by the placement (H3). Research has also identified perceptual and semantic dimensions of placements that would affect the way they are processed and in turn whether they will be noticed and recalled (Russell, 2002); specifically, it is expected that auditory mentions should increase recall (H4) and that the level of integration of the placement to the plot of the story would induce deeper processing and thus help recall (H5). With regards to the timing of the placement in the movie, research on primacy and recency effects has shown that, whereas in immediate tests, both primacy and recency effects occurred, only primacy remained after a delay (Terry, 2005) and that, in order to maximize brand recall, it is better to place a commercial at the beginning of a commercial break rather than at its end (Pieters and Bijmolt, 1997). Therefore, a primacy effect is expected with earlier placements leading to better recall than later placements (H6). Finally, distraction is an important potential hindrance to the placement's ability to attract the viewer's attention. Therefore, the model also incorporates whether the placement is unique at its time or whether other brands are simultaneously showing on the screen at the time of the placement, which is expected to decrease attention, and therefore recall of each placement (H7).

### **Audience Characteristics**

The second set of hypotheses integrates viewer and viewing characteristics that may affect exposure conditions to the movie and in turn affect the recall of placements in the film (Lehu and Bressoud, forthcoming). Whenever viewers watch a film at home, it is important to integrate the possibility of previous exposure to the film at the theatre. In the cognitive psychology literature, the positive impact of repeated exposures on familiarity for and thus recollection of stimuli is well-established (e.g., Yonelinas, 2002). As in Auty and Lewis (2004), previous exposure to a movie is expected to act as a priming device for recognizing the brands placed within it, and thus to facilitate the recall of placements (H8). In addition to prior exposure to the film, the actual viewing conditions may also affect the impact of the movie and the likelihood of recall of the brands placed within it. In particular, viewing conditions at home vary, with some viewers enjoying the movie on a large projection screen and others on a smaller TV screen. Given the relationship between prominence and recall addressed earlier, it is expected that the absolute size of the screen would affect memory for the brands placed in the film. Therefore, viewing a movie on a large projection screen should lead to greater recall of brands placed in the movie (H9). The last two hypotheses focus on movie variables, relating memory for the placed brands to the viewer's attitude toward the movie both before and after viewing it. Interest in

the movie before is conceptualized as the key motivation for choosing the movie. Some movie viewers select movies because of the movie director (Ainslie, Drèze and Zufryden, 2003) and this increased interest should lead to greater motivation for viewing and thus greater attention to the movie, which in turn, is expected to improve recall for brand placements (H10). The viewer's post-viewing attitude toward the movie is also expected to have a positive impact on the recall of placed brands. For instance, Johnstone and Dodd's research (2000) showed that attitude toward the movie improved brand salience. It is thus expected that the more positive viewers are toward a movie, the more attentive they are, and in turn the more likely they will recall placements (H11). The hypotheses are summarized in Figure 1.

### **Insert Figure 1 Here**

## **METHODOLOGY**

### **Placement Side: Sample of Movies**

The data collection took place in France. It was focused on 11 American movies: *Men in Black II*, *Minority Report*, *Analyze that*, *Banger Sisters*, *Fashion Victim*, *Austin Powers in Goldmember*, *Johnny English*, *Intolerable Cruelty*, *Mr. Deeds*, *Hardball* and *Paycheck*. These movies were selected primarily because the placements within them were easily and clearly recognizable. All the brand placements identified and used in the research were strictly isolated, occurring only once in the movie, thus making it undoubtedly possible to link recall to a specific placement and its executional characteristics. Two additional criteria were used to select the movies: they were new DVD releases during the data collection process, hence providing an opportunity to collect data from a large number of DVD renters, and they were successful movies (or at least expected to be for video rental), hence ensuring that many copies were available and facilitating the data collection. Furthermore, the focus on American movies is justified as they represent 55% of the 2003 French DVD market share in volume, and 69% in value (C.N.C., 2005). The large sample provides variance in types of placements.

### **Coding of Placement-Side Measures**

Across all the movies, 98 placements were identified and coded. Each placement was coded for the total duration of exposure of the placement in seconds and the amount of the screen space taken up by the placement was measured by the surface area of the placement on the surface area of the screen. Dichotomous variables were created to capture whether the placement appeared in the central quadrant of the screen (Lehu, 2005), whether the placement was verbally mentioned, and whether the placement was unique at its time. The level of integration of the placement was double-coded on a scale from 1 (low) to 5 (high) based on previous research (Russell, 2002). Timing of the placement in the movie was converting the exact time when the placement appeared in seconds.

### **Audience-Side: Sample of Respondents**

Data were collected from French consumers who completed questionnaires at a video store upon returning a rented DVD the day before. 3,532 individuals participated (51.4% males). The data collection process took place from January 2003 to February 2005 focusing on the selected "just released" DVDs. The questionnaire was systematically presented to every renter of one of the DVDs studied in the research.

Participants had chosen the movie freely. Response rate was extremely high with only six persons refusing to answer the questionnaire. This may be due to the small size and proximity of the video clubs and the appeal and personal relevance of the research topic. The questionnaires were completed inside the videoclubs where the presence of the club manager as well as other renters allowed a natural contact when the renters returned their DVDs. In addition, the questionnaire was relatively short, taking just a few minutes.

### **Audience-Side Measures and Dependent Variable**

The questionnaire began with a series of questions about the movie experience. Attitude toward the movie viewed was measured by asking participants to rate the movie on a scale from 0 (dislike) to 20 (absolute like). They were then asked whether they had watched the DVD on a TV screen or on a large home cinema screen. Then, they indicated the reasons for their DVD movie choice, selecting from five response options: actor, genre, director, recommendation, title, or other. If the movie director was included in the choice, this was dichotomously recoded (yes/no). Previous viewing of the movie in a theatre was measured with a dichotomous question ("Had you previously seen this movie at the theatre?" yes/no). The questionnaire concluded with the brand recall measure, a spontaneous day after recall (SDAR) of brand placements. A first question inquired whether, when viewing the film, the respondent had noticed any brands on the screen or in the dialogue (yes/no) and, if the answer was positive, they were then asked to list all those brands that they recalled.

## **EMPIRICAL FINDINGS**

### **Descriptive Statistics – Placement Side**

The 98 placements in the sampled movies provided variance in terms of executional variables. The majority ( $N = 78$ ) was visual, ten were audio only and another ten were audio and visual. Twenty-seven appeared in conjunction with another placement (i.e. were not unique). Eighteen were located in the central quadrant of the screen. They also provided variance in terms of cumulative exposure, which ranged from .34 to 40.28 seconds with a mean of 5.43 ( $SD = 6.90$ ), level of integration ( $M = 2.57$ ,  $SD = 1.54$ ), and screen surface ( $M = 2.90\%$ ,  $SD = 7.79\%$ ).

### **Descriptive Statistics – Audience Side**

The sample of this study is much larger than previous academic studies with 3,532 video viewers. Only 15% of the participants ( $N = 522$ ) indicated that they had previously seen the movie in a theatre. 16.6 % ( $N = 587$ ) of the participants had viewed the movie on a large screen, in a home cinema. 10.4% ( $N = 366$ ) of the participants indicated that they had chosen their DVD because of the movie director. Attitudes toward the movie were generally positive ( $M = 12.13$ ) and provided adequate variance ( $SD = 4.04$ ) to test a range of evaluations and their relationship to recall of brands placed within them.

### **Model Testing**

Data were tabulated so that each observation corresponded to a viewer's recall (or not) of a specific placement, thus resulting in 32,662 observations. The dichotomous recall variable was then logistically regressed on the set of placement characteristic variables and the set of viewer variables using a weighted log analysis. Weights were used to balance the number of recalled and non recalled placements that were

respectively 1,382 and 31,280 and to strengthen the model's explanability of the spontaneous recall dependent variable. The results, as seen in Table 1, provide support for all hypotheses. All the placement execution variables were significant and in the expected direction. In addition, all the viewer characteristic variables were significant and in the expected direction. An observation of the standardized coefficients reveals that the most important placement characteristics in predicting placement recall are whether the placement is unique at the time, the cumulative exposure and the brand's level of integration. Interestingly, two of the audience variables, namely viewing the film on a large projection screen and previous exposure, carried equivalent weights to these placements characteristics. Overall, these results reiterate the need to take into account both placement and audience characteristics in assessing product placement recall.

## DISCUSSION

Data collected from a large sample of movie viewers provide important insights into the variables that affect, positively or negatively, the day after recall of products placed in the movie. Support is found for the positive impact of prominence in terms of overall duration of exposure of the placement, the central location of the placement as well as the amount of screen taken up by the placement. The placement's level of integration to the plot also benefited recall, as did a placement's auditory mention. Support is found for a primacy effect, whereby recall is better for placements that appear earlier in the movie, in line with previous research conducted on the order of commercials in a commercial break (Pieters and Bijmolt, 1997). Distraction, in the form of multiple placements appearing simultaneously, is found to hinder recall. In addition to placement execution variables, several characteristics of the audience and the viewing environment were hypothesized and indeed found to improve recall, namely previous exposure, viewing on a large projection screen as well as the viewer's attitude toward the movie both before and after viewing it.

This study contributes to the growing body of literature on product placement effects. Unlike many studies conducted in a controlled environment, this one emphasized external validity with data collected from real viewers having seen real movies in their natural environment. Of course, this emphasis also brings in limitations. Unlike controlled experiments, the research procedures did not allow control over the viewing environment. The use of real movies did not allow control over the actual stimuli. The focus on an explicit memory measure, although in line with practitioners' current views for evaluating placement performance, is a limitation, because less salient placements that may not be explicitly remembered may be processed implicitly and still have an impact on consumers' attitudes. Notwithstanding these limitations, this research is novel in that it incorporates into the same model both characteristics of the placement and characteristics of the individual and of the viewing context.

The findings of how placement and audience variables relate to recall yield clear managerial implications. The research contributes to the growing need to incorporate placement characteristics in contractual agreements and for the development of placement valuation tools. The research also confirms the importance of placing products in films likely to yield positive attitudinal responses and with well-known directors. An additional contribution of this study is that it demonstrates the

importance of the lifecycle of films, from movie theatres, to DVD releases, to television.

## REFERENCES

- Ainslie, A., Drèze X. and Zufryden F. (2003). Modeling movie choice, working paper, University of California, Los Angeles, June.
- Auty, S., Lewis, C. (2004). Exploring children's choice: the reminder effect of product placement, Psychology & Marketing, 21(9), 697-713.
- Babin, L. A., Carder, S. T. (1996). Advertising via the box office: Is product placement effective? Journal of Promotion Management, 3 (1/2), 31-51.
- Balasubramanian, S. K., Karrh, J. A, Patwardhan, H. (2006). Audience response to product placements: An integrative framework and future research agenda, Journal of Advertising, 35(3), 115-141.
- Brennan, I., Dubas, K. M., Babin, L. A. (1999). The influence of product-placement type and exposure time on product-placement recognition, International Journal of Advertising, 18 (3), 323-337.
- C.N.C. (2005). Le marché du cinéma en vidéo, C.N.C. Info, le dossier du C.N.C., Spécial Vidéo, issue 293, March.
- d'Astous, A., Chartier, F. (2000). A study of factors affecting consumer evaluations and memory of product placements in movies, Journal of Current Issues and Research in Advertising, 22 (2), 31-40.
- Gupta, P. B., Lord, K. R. (1998). Product placement in movies: The effect of prominence and mode on audience recall, Journal of Current Issues and Research in Advertising, 20 (1), 47-59.
- Johnstone, E., Dodd C. A. (2000). Placements as mediators of brand salience within a UK cinema audience, Journal of Marketing Communications, 6 (3), 141-158.
- Karrh, J. A. (1995). Brand placements in feature films: the practitioners' view, in Proceedings of the 1995 Conference of the American Academy of Advertising, Charles S. Madden, ed., Waco: TX, Hankamer School of Business, Baylor University, 182-188.
- Karrh, J. A. (1998). Brand placement: A review, Journal of Current Issues and Research in Advertising, 20 (2), 31-49.
- Karrh, J. A., Brittain McKee, K., Pardun, C. J. (2003). Practitioners' evolving views on product placement effectiveness, Journal of Advertising Research, 43 (2), 138-149.
- Lehu, J.-M., Bressoud, E. (forthcoming). Effectiveness of brand placement: New insights about viewers, Journal of Business Research.
- Lehu, J.-M. (2005). Le placement de marques au cinéma : proposition de la localisation du placement à l'écran comme nouveau facteur d'efficacité potentielle, Décisions Marketing, 37 (January-March), 17-31.
- McCarty, J. (2004). Product placement: The nature of the practice and potential avenues of inquiry, in The Psychology of Entertainment Media, L.J Shrum, ed., Mahwah, New Jersey: Lawrence Erlbaum Associates, 45-61.
- Nebenzahl, I. D., Secunda, E. (1993). Consumers' attitudes toward product placement in movies, International Journal of Advertising, 12(1), 1-11.
- Ong, B. S., Meri, D. (1994). Should product placement in movies be banned? Journal of Promotion Management, 2(3/4), 159-175.

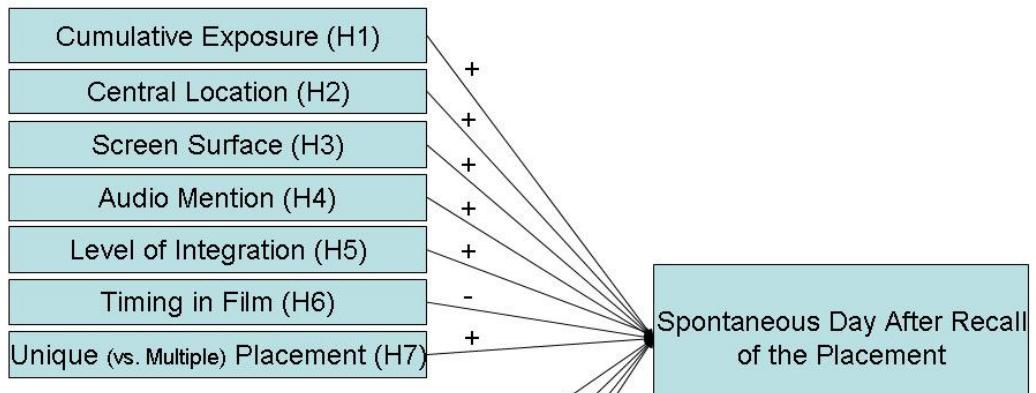
- Pieters, R. G. M., Bijmolt, T. H. A. (1997). Consumer memory for television advertising: A field study of duration, serial position, and competition effects, Journal of Consumer Research, 23(4), 362-372.
- Proquest (2008). www.proquest.com.
- Russell, C. A. (2002). Investigating the effectiveness of product placements in television shows: The role of modality and plot connection congruence on brand memory and attitude, Journal of Consumer Research, 29, December, 306-318.
- Russell, C. A., Belch M. (2005). A managerial investigation into the product placement industry, Journal of Advertising Research, 45, 1, 73-92.
- Terry, W. S. (2005). Serial position effects in recall of television commercials, The Journal of General Psychology, 132(2), 151-163.
- Yang, M., Roskos-Ewoldsen, B., Roskos-Ewoldsen, D.R. (2004). Mental models for brand placement, The Psychology of Entertainment Media: Blurring the Lines Between Entertainment and Persuasion, L. J. Shrum, ed., Mahwah, NJ: Lawrence Erlbaum, 79-98.
- Yonelinas, A. P. (2002). The nature of recollection and familiarity: A review of 30 years of research, Journal of Memory & Language, 46, 441-517.

**TABLE 1: LOGISTIC REGRESSION RESULTS**

Hypothesis	Variable	Khi <sup>2</sup> (Wald)	Significance	Standardized coefficients
H1	Cumulative Exposure	1132.636	< 0.01	0.269
H2	Central Location	247.037	< 0.01	0.122
H3	Screen Surface	287.253	< 0.01	0.127
H4	Audio mention	96.873	< 0.01	0.077
H5	Level of Integration	588.864	< 0.01	0.237
H6	Timing in Film	160.218	< 0.01	-0.118
H7	Multiple Placement (vs. Unique)	1000.407	< 0.01	-0.337
H8	Previous Exposure	982.572	< 0.01	0.242
H9	Projection Screen (vs. TV Screen)	1318.050	< 0.01	0.252
H10	Selection based on Director	722.208	< 0.01	0.183
H11	Attitude toward Movie	112.282	< 0.01	0.094

**FIGURE 1: CONCEPTUAL MODEL**

Placement variables:



Audience variables:

