

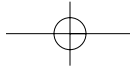
Exploring Children's Choice: The Reminder Effect of Product Placement

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ABSTRACT

There has been little attempt to understand the influence on children of branded products that appear in television programs and movies. A study exposed children of two different age groups (6–7 and 11–12) in classrooms to a brief film clip. They were then individually asked to demonstrate their witness skills by describing in as much detail as possible what they had seen. Half of each class was shown a scene from *Home Alone* that shows Pepsi Cola being spilled during a meal. The other half was shown a similar clip from *Home Alone* but without branded products. All children were invited to help themselves from a choice of Pepsi or Coke at the outset of the individual interviews. Those who had seen the branded clip made a significantly different choice of drink. The responses to the interviews suggest that it is not simply exposure to the film but rather previous exposure together with a reminder in the form of recent exposure that affects choice. Age (and by implication processing skill) does not appear to be a mediating factor affecting choice, because implicit memory (mere exposure) seems to be more important than explicit recall. © 2004 Wiley Periodicals, Inc.

Despite a history of at least 60 years in films, product placement has suffered relative neglect at the hands of researchers. Indeed, almost every article now being published on the topic notes this fact (e.g., Babin & Carder, 1996; DeLorme & Reid, 1999; Ferraro & Avery, 2000; Russell, 1998). At the same time they report the increasing attractiveness of this



form of communication for brand owners in an age of media fragmentation and consumer sophistication, where the prevailing objective of advertisers is to get under the radar of the target market. Shapiro, MacInnis, Heckler, and Perez (1999), building on earlier work of Janiszewski (1988, 1993) and an earlier study (Shapiro, MacInnis, & Heckler, 1997), indicate that advertisements, even if not explicitly recalled or recognized, may influence consumers especially with regard to the inclusion of a brand in a consideration set.

With product placement being ranked almost on a par with subliminal advertising (Balasubramanian, 1994; D'Astous & Chartier, 2000), there is probably no better way to achieve this objective than to get one's product placed casually but prominently within a popular film or television program. Far from being rejected by today's viewers, DeLorme and Reid (1999) found that brand props in films contribute to realism and a sense of familiarity that is valued by Generation X. Although their study did not include respondents below the age of 18, they indicate the critical need to investigate young children's experiences and interpretations of brand placement. Similarly, Karrh (1998) and Roedder John (1999) suggest that entertainment content needs more attention with regard to the subtle messages being delivered and their effects on young children. A systematic search of several databases (PsychInfo, ProQuest, Zetoc, Dissertation Abstracts, and Ebsco) on the terms *product placement* and *brand placement* revealed only one Ph.D. dissertation and no articles on the effect of product placement on children. The dissertation (Vollmers, 1995) had a very specific focus on explicit measures of recall and affect, for example, asking children 7–12 years of age to recall brands of motor oil and farm equipment in the film *Lassie*. The current study was undertaken in order to determine if children are aware of product placement to the extent that they even notice brands in films. The effect of these placements on choice, while notoriously difficult to measure, is also examined under experimental conditions with the use of an implicit measure.

CHILDREN AND ADVERTISING

A great deal of research effort has gone into understanding what children know about advertising—its commercial intent, its difference from programming—and how effectively they process its messages (e.g., Bijmolt, Claassen, & Brus, 1998; Macklin, 1984, 1994; Robertson & Rossiter, 1974; Roedder, 1982). Roedder's (1981) information-processing distinction between "limited processors" (up to 8 years old), "cued processors" (8–12 years old) and "strategic processors" (over 13 years old) has been widely adopted by researchers, though with some modification to the age boundaries on occasion (see Macklin, 1984). Her review of research into information processing concluded that, without prompts, cued processors would have difficulty in absorbing product information. In order to off-

set their deficiencies, the message content would have to be strong enough to compete with peripheral distractions.

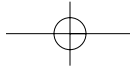
Past research indicated that with increasing knowledge of advertising's intent comes an enhanced ability to resist or elaborate its messages. Moore and Lutz (2000) observe that older children (10–12-year-olds) are more able to appreciate advertisements' nuances and to connect these with how products are used. Yet product placements may get under the radar of even older children who have strategic information processing capabilities (13 years and up). Because product placement, when it is done well, looks as if it is part of the lives of the characters, it may lead to less counterarguing and “internal zapping”—tuning out mentally—even by adult consumers (D'Astous & Chartier, 2000).

Moreover, cognitive processing may not be required to affect choice if one accepts Zajonc's (1980) discussion of mere exposure and the independence of affect and cognition: “It sometimes happens that we are reminded of a movie or a book whose contents we are unable to recall. Yet the affect present when leaving the movie or our general impression of the book are readily accessible” (p. 159). Indeed, some researchers indicate that awareness may actually inhibit the primary affective reaction (Ye & van Raaij, 1997). They point to earlier research by Kihlstrom (1987), and suggest that conscious countercontrol may offset any affect such that the attitude toward clearly recognized stimuli may be less favorable as a result.

PREVIOUS RESEARCH INTO EXPLICIT AND IMPLICIT MEMORY FOR PRODUCT PLACEMENTS

Most studies on the effect of product placement have used explicit memory tests. For example, Gupta and Lord (1998) found that recall and recognition are better for prominently placed products rather than those simply appearing in the background. Babin and Carder (1996) reported that recognition appeared to be influenced not only by prominence but also recency—later placements being recognized more than early ones. Unlike Gupta and Lord, they found that audiovisual placements were much more effective than visual ones alone, although their visual placements were background ones rather than the prominent ones referred to by Gupta and Lord. Russell (2002) investigates plot integration as a possible factor in successful placement. She concludes that well-integrated but visual-only placements appear to be more persuasive in changing attitudes than prominent but incongruent auditory placements.

Shapiro et al. (1997) conducted research showing how little-noticed material may still be absorbed by viewers and retained in memory, even though the memory may not be accessible to consciousness. A magazine article was read by participants on a computer screen, and ads appeared in the margins. Tasks were designed to maximize attention to the arti-



cle and minimize attention to the ads. Implicit memory was measured by asking participants to construct a shopping list of eight items for a particular buying occasion. To measure explicit memory a recognition test of depicted items was administered. Although the recognition rate was not significantly different between the experimental and control groups, the shopping lists of the experimental group were much more likely to include the advertised products (e.g., a carrot and a can opener) than those in the control group.

The importance of not limiting measures to explicit tests of recognition and recall was also noted by Holden and Vanhuele (1999). Their research manipulated deliberate versus incidental attention to fictitious brand names as well as aural versus visual modality, with participants required to identify each brand as known, recognized, or unknown. They found that deliberate attention led to a sense of familiarity that was not accompanied by a knowledge of the brand's newness; rather it was a sense that, "If this brand is familiar to me, it must be because it's worthy of my consideration." The source of the brand's familiarity—the context of the memory—was not remembered. Such an effect might well occur in prominent product placements, whereby the brand is noticed sufficiently to be retained in implicit memory but not accessible to recognition judgments.

Law and Braun (2000) used first implicit measures and then explicit recall measures in their investigation of the modality of product placement in *Seinfeld*. The more prominent placements in their research had no effect on choice, but the seen-only products, while least recalled, had the greatest influence on choice. They conclude that explicit testing measures may mislead marketers into underestimating the importance of visual placements.

IMPLICIT MEMORY AND MERE EXPOSURE

A meta-analysis of exposure and affect (Bornstein, 1989) concludes that subliminal stimuli may be processed affectively without any concomitant cognitive processing. Although not strictly subliminal, product placements may not be consciously encoded even by those who are capable of doing so. The effect of product placement on choice may be mediated therefore by repetition—mere exposure—rather than by age. "Mere exposure" theory suggests that the limited processing that occurs with a product placement exposure is enough to produce a feeling of familiarity that is later processed as a preference for the stimulus (Janiszewski, 1993; see also Zajonc, 1980). It must be noted, however, that in the case of young children, the findings are mixed, with some researchers recording a novelty effect of unfamiliar stimuli (Bornstein, 1989).

Recent research by Nordhielm (2002) reinforces the growing consensus about the importance of an understanding of implicit memory on affect and choice. Providing the semantic content of an ad is processed,

her research confirms the expected inverted-U shape for advertising affective judgments when measuring the wear-out effects of repetition. Where the advertising was only incidentally processed (that is, seen but not recalled), affective judgments of the ad showed a linear effect with regard to repetition: There did not appear to be any wear out after 25 repetitions. Moreover, 25 repetitions of these perceptually processed ads led to significantly greater likelihood of choice compared to fewer repetitions. She also found that after that number of repetitions, the ads that were only perceptually processed led to significantly greater choice than semantically processed ads. These findings have profound implications for product placement with regard to children. In children without the cognitive skills to understand or even consciously notice product placements (i.e., limited processors), frequent viewing of videos or video games may lead to greater affect for the product over time, rather than the reverse that might be expected for cued processors. Any novelty effects will also be insignificant when there are many repetitions.

HYPOTHESES

Based on the literature cited above, a working model of how product placement affects choice may be seen in Figure 1. Here it is shown that exposure to product placement may be mediated by cognitive ability (age) and explicit memory leading to choice. An independent pathway through the implicit memory of a past exposure is also possible. The double-headed dotted arrow between current and past exposure depicts an unknown relationship between current and previous exposure and an uncertainty about the effect of recall versus mere exposure (implicit memory). In a sequence of related hypotheses with brand choice as the dependent variable, first the effect of exposure to product placement is

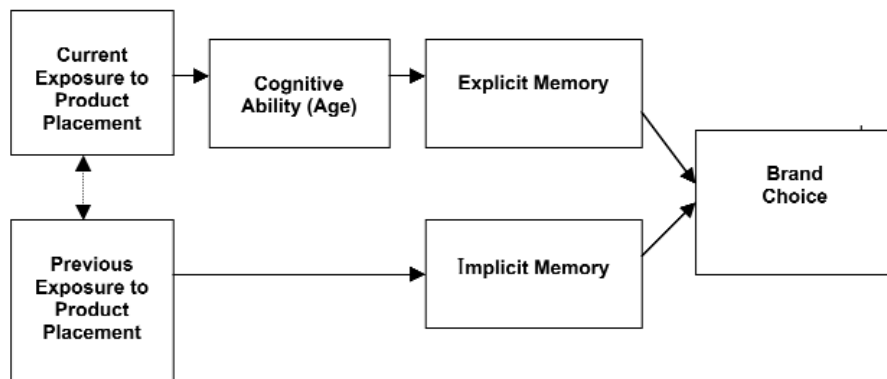
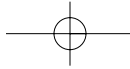


Figure 1. Working model of the effect of product placement on choice in children.



examined as an independent variable mediated by cognitive ability (age) leading to recall and then to choice. Then the effect of prior exposure is considered as an independent variable leading to implicit memory and then to choice. The effects on choice of past and current exposure and current exposure alone are also examined.

First there is a need to establish if there is an effect on children:

- H1** Children exposed to product placement in a film clip will choose a different brand when offered a choice on the same day from those who are not shown the branded film clip.

Then the effect of age, and by implication processing ability, is examined as a mediating factor in the effect of product placement on an explicit memory pathway to choice. Recall of the brand is taken as a measure of cognitive processing and hence is used to determine if cued processors absorb brand information from product placements differently than limited processors do.

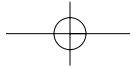
- H2** (a) There will be a difference in recall of the brand shown in a product-placement film clip between cued processors (11–12-year-olds) and limited processors (6–7-year-olds).

Recall of the brand suggests a salience equivalent to top-of-mind awareness. As this awareness level is what many advertisers strive for, it is reasonable to expect that children who demonstrate salience of the brand by retrieving it from memory will choose differently from other children when offered a choice including the exhibited one. This expectation assumes that no counterargument occurs. Thus, to see if explicit memory of a placement affects choice, the following is hypothesized.

- H2** (b) There will be a difference in the choice of brand between children who have correctly recalled the brand and those who do not recall the brand.

In considering previous exposure, an earlier viewing might be expected to act as a priming device for recognizing the branded stimulus. This effect should not be mediated by age, as Peracchio (1993) suggests that even 5-year-olds are able to acquire event knowledge (i.e., a story about product exchange) when shown an audiovisual presentation of the event multiple times. Another possibility is that having seen the film before, children may be able to devote more attention to the background details rather than attending to the plot and be more effectively primed than those who had never seen the film before.

These expectations make an assumption that explicit memory is involved in the effect on choice. The possibility of an independent pathway to choice from the implicit memory is strengthened by the litera-



ture on mere exposure. This effect has been attributed to the shallow perceptual processing leading to implicit memory and is depicted in the lower pathway in Figure 1. Compared to explicit memory skills, implicit memory is believed to be relatively well developed in 5–7-year-olds (Cycowicz, Friedman, Snodgrass, & Rothstein, 2000) and provides a reason for prior exposure to be independent of age as a mediating factor.

Similarly, current exposure may not necessarily mediate prior exposure in its effect on choice. Indeed, a delay between presentations and ratings may actually increase the effect on preference (Bornstein, 1989). Naturalistic studies, that is, those investigating effects in a nonlaboratory setting when it is not possible to know the period of delay between exposure and ratings, appear still to produce a pronounced effect on preference. Hence the following is hypothesized:

- H3** Children who have seen the film before will make a different choice of brand from those who have not, regardless of whether or not they have been exposed to the branded clip.

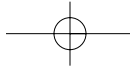
However, the priming effect is generally accepted to last up to 2 weeks (Bornstein, 1989), so if priming is an essential element in the effect of mere exposure on choice, then one would expect to find a difference (in children with previous exposure) between those who saw the branded clip on the day and those who did not. Thus, a further hypothesis explores the interaction between prior and current exposure.

- H4** Among children who have seen the film before, those shown the brand in a film clip will choose a different brand from those who are not shown the branded film clip.

A final question arises with regard to exposure to the stimulus. In the absence of previous exposure, is seeing the branded clip on the day sufficient to affect choice? Hence,

- H5** Among children who have never seen the film before, those shown the brand in a film clip will choose a different brand from those who are not shown the branded film clip.

The following experiment was designed to explore the effect of product placement on children in two age groups in terms of their choice of the brand in an implicit preference test. Using Roedder's (1981) classification, 6–7-year-olds were selected as limited processors and 11–12-year-olds as cued processors. The intention was to see if the children's choices of a drink were related to the brand displayed in the clip and, if so, whether or not they explicitly recalled the brand, indicating cognitive processing, or was it a case of mere exposure. The effect of previous exposure was also measured to explore the strength of the mere-



exposure effect, and by implication the importance of implicit memory to choice.

METHOD

Participants

One hundred and five children participated in the research. Forty-eight were 11–12-year-olds in their first year of a mixed-ability state secondary school in the United Kingdom; the rest were 6–7-year-olds in their third year of primary school. Within their classes, participants were randomly assigned by their teachers to groups alphabetically by last name. Prior written permission to offer children a soft drink during a brief interview was obtained from parents. Parents and teachers were told that children would be asked questions about their observations after they viewed a film clip.

Design

Children in the treatment group were shown a short clip (1 minute and 50 seconds) from *Home Alone*, which showed the family around a dinner table consuming pizza, milk, and Pepsi Cola. Pepsi is mentioned by name by an adult (“Fuller, go easy on the Pepsi”), and in the course of the clip it spills on the table. The bottle is in evidence throughout the clip, although it should be noted that the color of the bottle has since changed. In past research into implicit perceptual memory and color processing, Mecklenbrauker, Hupbach, and Wippich (2001) report several studies that show that drawings of objects whose color had changed between exposure and test were named as quickly as those that stayed the same color, even in experiments with 4–8-year-olds. Thus, the change in bottle livery was judged to be neutral in its likely effect on the experiment. The clip was chosen because it showed the family around the dinner table eating unbranded pizza and displaying—and mentioning—unbranded milk as well as the Pepsi, allowing the clip to be paired with the one described below.

The control was defined as a scene of similar length from the same movie, showing similar content—eating and drinking—but without branded products on display. Children in the control group were shown a clip in which an unbranded macaroni and cheese meal is placed in the microwave and then eaten by Kevin, the child hero of the film, who also drinks a glass of milk. He draws attention to the food by saying: “Bless this highly nutritious macaroni and cheese microwavable meal that the supermarket had on sale. Amen.”

Home Alone was chosen as being suitable for both age groups and well-liked by viewers of both sexes. It was released over 10 years ago, mak-

ing it likely that many children would have seen it at some point in their lives but not necessarily recently. Pepsi was judged to be a good brand for testing preferences because it is very well known without being the brand leader. Moreover, the relative market share of Pepsi to the brand leader, Coke, is known, as is the relative ad spend. Coke outsells Pepsi in the United Kingdom by a ratio of 3:1, and its ad spend for the past five years has been approximately two and a half times as great (A.C. Nielsen, December 2000).

Procedure

The experimental design manipulated type of exposure (branded or unbranded) by an independent variable, the age group. Prior exposure was a measured variable. The dependent variable was choice of soft drink after exposure. Each group was taken out of class separately to view their respective clips and then assimilated into the class activities. After both groups had seen their clip, children were randomly taken out of class over a period of up to 4 hours to a separate interview room (the head teacher's office), which was equipped with comfortable chairs and a table with cups on which an equal number of small cans of Coke and Pepsi (two of each) were displayed. The two interviewers had been former students at the schools they visited, and thus spoke in familiar accents. They also introduced themselves by saying that they used to go to the same school, which put the children at their ease. They were fully apprised of the research hypotheses and were trained to avoid the types of subtle messages or body language that might affect results. They were unaware of the experimental condition of each child until after the interviewee began to describe the clip in the manner described below.

Children were invited to help themselves to a drink before being asked "a few easy questions." The researchers were careful to look elsewhere while each child was making his/her choice. This implicit test of preference was similar to Gorn's (1982) experiment in which participants were asked to select a pen of their choice after exposure to different conditions. The children's choice of drink was recorded surreptitiously as they were being asked to describe what they had seen in as much detail as they could remember.

If members of the treatment group did not mention Pepsi in their account, they were prompted with increasing specificity from the very general "What were they doing?" through a series of nine questions leading to the very specific, "What was the name of the cola?" but without naming the brand:

- What were they doing?
- Can you think of anything else?
- Were they eating or drinking?

- What were they drinking?
- Was it a fizzy drink?
- What color was it?
- Was it a cola?
- What was the name of the cola?

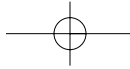
It was recognized that the series might not be able to be strictly followed, so simply the number of general prompts required to elicit a brand of cola was recorded, together with the brand stated. They were then asked if they had seen the film before, and if so, how many times. Children in the control group were asked a similar set of questions, especially about what was drunk in the clip, in order to see if prior viewing brought mistaken identification of Pepsi as the drink being consumed. Each interview took about 5 minutes after which the child was returned to the classroom and the next one called out. It was recognized that the delay in later tests might affect recall. It was decided that any effect could be determined by the number of prompts required by later interviewees compared to earlier ones.

RESULTS

Cross tabulation of choice of soft drink by exposure to the branded film clip supported H1: $\chi^2(1, N = 105) = 4.22, p = .04$. There was a significant difference between the two groups. The control group split between Coke and Pepsi was 58:42 compared with the treatment group's 38:62, compared with an overall market in the United Kingdom of 75:25.

Cognitive ability (age) was not a significant mediating factor in the choice of drink and exposure to the branded film clip. First the data were checked to see if there was a difference in the ability of each age group to recall Pepsi after prompting. There was no statistically significant difference: $\chi^2(1, n = 52) = 1.47, p = .23$. Sixty-seven percent of the cued processors were able to recall Pepsi compared with 50% of the limited processors. Hence, H2(a) is not supported. Yet, regardless of age, explicit memory or recall might affect choice. So recall was cross tabulated by choice: $\chi^2(1, n = 52) = 0.07, p = .79$. Thus H2(b) is not supported either. The number of prompts required for recall, however, was highly dependent on age: Means were 4.43 for the 6–7-year-olds ($n = 28$) and 2.06 for the 11–12-year-olds ($n = 18$), $t = 5.11$ ($df = 44$), $p < .000$, in keeping with an expected increase in cognitive ability.

There was no significant difference between the two age groups in the number of times the film had been seen before, which might have



affected recall: Means (with 4 or more recorded as a single category owing to the increasing imprecision with which children were able to remember the exact number of times they had seen it) were 1.46 of the 6–7-year-olds, $n = 28$, and 2.08 for the older children, $n = 24$, and $t = -1.39$, $df = 50$, $p = .17$. It would appear that cognitive ability as measured by recall discriminates between the two age groups, but cognitive ability (and by implication explicit memory) is not a mediating factor in the influence of product placement on choice.

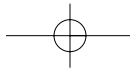
With regard to the link depicted by the dotted arrow in Figure 1—recall and previous exposure—it was predicted that there would be a negative correlation between times of previous exposure and the number of general prompts required to elicit the brand. Analysis showed that the prediction was correct: There was a significant negative Pearson correlation ($n = 46$, $r = -.35$, $p = .009$, one-tailed) between the number of general prompts required to elicit the brand and the number of times the film had been previously seen. The 6–7-year-olds, as might be expected, accounted for most of the correlation ($n = 28$, $r = -.32$, $p = .05$) compared to the 11–12-year-olds ($n = 18$, $r = -.04$, $p = .44$). The ability of the limited processors to recall the brand benefited from repeated exposure. To see if a delay of hours affected recall, the time of being tested was checked. There was no correlation between order of being tested (a surrogate measure of delay) and number of prompts required.

Does this long-term recollection from previous viewings with or without a new exposure translate into choice behavior, as advertisers hope it does? The cross tabulation between those who have seen the film before or not and choice of drink does not support that link: $\chi^2(1, N = 105) = 0.16$, $p = .68$. Hence H3 is not supported. Repetition without a current exposure does not appear to influence choice.

When the same analysis is done separately for those who have seen the film before and then either exposed to the brand or not, however, there is a pronounced difference. Among children who had seen the film before, those who were exposed to the brand chose differently from those who were not shown the brand on the day: $\chi^2(1, n = 72) = 4.71$, $p = .03$. Hence, H4 is supported. The ratio of Coke to Pepsi choices among those who had seen the film earlier and also on the day ($n = 33$) fell to 33:67, compared with the ratio of the control group (who had also seen the film before) of 58:42. Children exposed to the Pepsi brand seem to be more likely to choose Pepsi than those who were not exposed.

In contrast, those who had never seen the film before but saw the clip for the first time were not more likely to choose a different brand from the control group: $\chi^2(1, n = 33) = 0.31$, $p = .58$. H5 is not supported. It would appear that it is the combination of prior exposure and reminder that is most effective in influencing choice by reactivating a trace in children's implicit memory.

A summary of the hypothesized findings appears in Table 1.

**Table 1. Summary of Findings.**

Hypothesis	N =	Supported/ Not Supported	χ^2	Significance (<i>p</i> =)
H1 Exposure/Choice	105	Supported	4.22	.040
H2a Age/Recall	52	Not Supported	1.47	.225
H2b Recall/Choice	52	Not Supported	0.07	.790
H3 Previous/Choice	105	Not Supported	0.16	.683
H4 Reminder/Choice	72	Supported	4.71	.030
H5 Clip Only/Choice	33	Not Supported	0.31	.579

DISCUSSION

This study was an initial experiment to explore the issue of whether or not product placement has an effect on children. It was suspected that, on the one hand, greater processing ability would result in differences depending on the age of the children and, on the other, that mere exposure effects might operate regardless of age. Additional questions may always be asked in this type of research, and as the research was carried out, three factors were identified that should be explored in any further studies: the respondent's favorite brand of the tested product, recency of previous viewing of the treatment film, and gender. In the second round of data collection, children were asked about ownership of the video and when they had most recently seen the film, but there were insufficient data to draw any conclusions. Prior research would suggest that there are no gender differences (Dotson & Hyatt, 2000; Macklin, 1994; Vollmers, 1995), but Bijmolt et al. (1998) did find that among very young children (5–6-year-olds) boys were much more aware of the commercial intent of TV advertising than girls were.

A reviewer has also suggested that participants should be invited to guess the purpose of the research to see if choice was related to knowledge of research intentions. Bowers and Schacter (1990) have produced an awareness questionnaire that is often used in experiments on implicit memory effects, and a similar measure should be derived for future experiments with children. Nevertheless, in the current experiment, children's recall of the placement was not a significant factor relating to choice, and therefore in the event that some children guessed the experimental intent, it should not have materially affected the results, other than possibly to underestimate them. Despite the absence of the data indicated above, this study appears to show a clear effect of product placement upon children's incidental choice of a drink. The link needs detailed examination and qualification, considering the interactions between the number of exposures, the type of learning, the type of product, and the differences between younger and older children.

In contrast to Johnstone and Dodd (2000), it was found that those with prior exposure to the film were more able to recall the brand correctly and

required fewer general prompts to do so than those who had not seen it before. It would seem that with prior exposure some kind of learning occurs in all ages of children, although the findings suggest a greater ability to process the information from prior exposure in older children. On the evidence of the number of prompts required to recall the brand in the hours following exposure to the placement, the cued processors seem to be more easily able to retrieve the brand than limited processors regardless of prior exposure. Nevertheless, prompting was necessary and effective in the limited processors because the cues corrected their cognitive deficits, so it was found that there was no difference by age in actual recall of the brand. An explanation for the effectiveness of prompting and the lack of difference in choice between the two age groups exposed to the branded film clip may possibly be found in the role of “verbal labeling.” Macklin (1984) found that 6–8-year-olds benefited from having the name spoken aloud in storing important visual information about the product, leading to improved recognition in the store, with an expected influence on choice. It is also acknowledged in the industry that the best placements are those in which the star actually uses the product and the product name is mentioned, although recent research has cast doubt on that assumption (Law & Braun, 2000).

The current research suggests that limited processors in particular benefit from repetition of placements. Verbal labeling may work together with implicit perceptual memory to strengthen trace memory with repetition. This implicit memory may lead to increased fluency in processing, in turn leading to preference for the familiar item (see Jacoby, Kelley, & Dywan, 1989). No difference in choice was found between those who correctly recalled the brand and those who did not, regardless of age, suggesting that explicit memory does not play a significant role in choice. Moreover, cognition does not appear to have inhibited affect, suggesting in turn that counterargument by cued processors did not negatively influence choice. This supports Russell’s (2002) finding that “natural” placements, even if entirely visual, result in positive affect. The use and reference to Pepsi were entirely natural in the treatment film clip, and thus did not lead to deep processing even by cued processors.

The most intriguing finding from the research is the effect of the reminder of prior exposure on choice, compared with a single exposure or compared with prior exposure without a reminder (i.e., exposure to the unbranded clip). The contention of Zajonc and Markus (1982) that when objects are repeatedly presented to the individual, the mere exposure may make the individual’s attitude toward the objects more positive is supported by the findings only to the extent that a reminder of the object is provided. The fact that exposure to the product placement in the film was needed supports the research of Johnstone and Dodd (2000), who found that promotional activity associated with a film did not increase brand salience when the film was shown, although product placement did. Indeed, Pepsi was the brand cited here as an interesting case because in

the film used to measure the effects of product placement, *Spice Girls: The Movie*, Pepsi did not actually appear, but there was a lot of promotional activity with Pepsi publicizing both the film and the pop group. In an experiment, people did not make the association between the film and the brand.

Yet, even without brand salience, our findings show an effect on choice among those who were in the treatment group who had seen the film before, probably owing to affect rather than association. The findings support the recent work on implicit memory and advertising, for example, that of Holden and Vanhuele (1999), who conclude that “failure to remember exposure to an ad does not preclude the possibility that it has affected consumer behavior processes such as brand consideration” (p. 493). It may be that children are likely to employ a heuristic processing model (Shrum, 1999), and in this experiment chose Pepsi because it was most easily retrieved when an earlier exposure had been processed together with the current one. This suggestion supports the notion of a processing fluency, which then becomes interpreted by the individual as positive affect (Jacoby et al., 1989).

For a revised model in light of the experimental findings, particularly Hypotheses 4 and 5, see Figure 2. Here the importance of the interaction of previous exposure with current exposure is indicated by a linear pathway to choice through implicit memory. Age is no longer a contributory variable, because the greater cognitive ability that affects recall appears to have no effect as a mediator between exposure and choice: Explicit memory does not seem to be important. Rather, implicit memory reactivated by a current exposure provides an explanation for the findings. These findings are in line with Nordhielm (2002), who found that repetition leads to increased affect in relation to advertisements that are not deeply processed. The issue of how long the effect lasts after the most recent reminder needs further research. It would be interesting to replicate Nordhielm’s research—and the current study—with a delay between exposure and testing.

Given the tendency of young children to watch videos of their favorite films over and over again, the findings have ethical implications for the use of product placement in films targeted at young children who have not yet acquired strategic processing skills. Without being aware of their exposure to commercial messages, they have been affected by the exposure in some preconscious way. What is not known is how long the effect

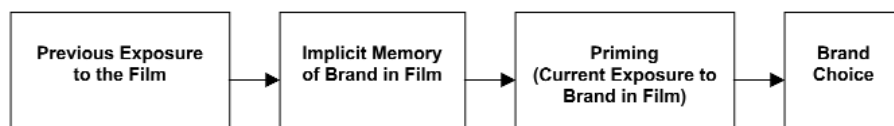


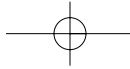
Figure 2. Suggested model of the effect of product placement on choice in children.

of a reminder of prior exposure is or how prominent the placement needs to be before these have an effect. These are research questions to pursue that would be of great interest to policy makers who deal with the growing use of this form of communication.

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