

## **THE INHIBITING EFFECT OF BRAND SALIENCE ON BRAND NAME RECALL**

Julian Vieceli  
Deakin University

Byron Sharp  
University of South Australia

### **Abstract**

This paper reports on a replication of Alba and Chattopadhyay's (1986) study of the effects of substantially heightened brand salience upon the recall of competing brand names. Heightened salience was consistently shown to have an inhibiting effect on recall across a variety of experimental conditions. However, in the replication study this salience effect was not observed. Instead a trend in the reverse direction was found. This new finding is congruent with associative network model of memory and its prediction that subjects concentrating on a brand should trigger links in memory to the brand and other brands in the category.

### **The Inhibiting Effect of Brand Salience on Brand Name Recall**

This paper reports on a replication of a study that has potentially vast impact on marketing especially in the area of advertising recall and brand choice. If consumer recall is inhibited by increasing salience of a brand then the effect of exposing consumers to a brand at the point of purchase should limit their choice set and eventually their choice.

Salience has been defined as the "prominence or level of activation of a brand in memory" (Alba and Chattopadhyay 1986). To make a brand name fully salient is to give it top-of-mind awareness where it will be the first brand brought to mind by the consumers in a search of internal memory when cued to recall information. Theoretical and empirical work has suggested that this may be a primary role of repetitive image advertising and other marketing communications; to change salience rather than to effect attitude change (Ehrenberg, 1974; Miller and Berry 1998).

This paper reports on a replication of a series of five experiments by Alba and Chattopadhyay (1986), which investigated the inhibiting effect of brand salience on brand name recall. Alba and Chattopadhyay (1986) showed a consistent significant inhibition effect with subjects in the heightened salience condition able to recall fewer brands than subjects in the low salience condition. This study replicated the experiments conducted by Alba and Chattopadhyay and produced contradictory results. Methodological design explains some of the differences in results and supports the finding of our study that heightened salience does not inhibit recall.

### **Salience Differentials and Recall**

Heightened salience has been proposed to inhibit the recall of other brands in the consumer's memory due to the process of sampling with replacement (Rundus 1973). The method of recalling

information by sampling with replacement indicates that when a consumer recalls brand information from memory they recall a brand, which will then be replaced in their retrieval set available for further recall. It is proposed that a salient brand will be recalled first due to its prominence in the consumer's mind and the salient brand will be recalled again at the expense of competing brands.

The mere act of recall itself heightens a brand's salience as it strengthens the links in memory to that brand and causes the brand to reach the threshold of retrieval more easily, according to the Anderson (1983) model of spreading activation in semantic memory. A salient brand would then continue to be recalled to the exclusion of other brands, including competitor's brands in the consumer's retrieval set.

### **Does Using Brand Names as Cues Inhibit or Facilitate Recall?**

Nedungadi (1990) found using a brand as a cue facilitates brand retrieval through both a direct and indirect effect. Priming a minor brand in a minor category increased the probability of retrieval of the major brand in that minor category. This is tested in the first experiment by looking at the effect of pre-experimental salience using both high salience and low salience cues (as per Nedungadi 1990). Alba and Chattopadhyay (1986) found that the provision of a brand name prior to recall could facilitate brand recall if the brand name cues an unretrieved (sub) category, but inhibits brand recall in accessible categories. Alba and Chattopadhyay (1986) specifically investigated the impact of extremely heightened salience rather than merely the effect of being presented with a cue prior to recall and found the inhibition effect of high salience was observed consistently across a series of experiments designed to extend the generalisability of results.

### **Purpose of the Research**

It is known that multiple cues at the point of retrieval inhibit recall of competitor's brand names (Nickerson 1984; Roediger and Neely 1982), but this experiment investigates whether or not the provision of a single "salient" cue will have a similar effect to the presentation of multiple cues.

**H<sub>0</sub>:** Substantially increasing the salience of a brand name cue at the point of retrieval will cause inhibition of competitors' brand names in the recall process.

**H<sub>1</sub>:** Substantially increasing the salience of a brand name cue at the point of retrieval will facilitate heightened recall of competitors' brand names in the recall process.

### **Experiment 1**

This experiment investigates the popular consumer category of shampoo. All subjects were given one familiar cue brand to increase salience. In both experiments salience was manipulated by altering the amount of time subjects were exposed to the cue and the effort directed to the brand prior to recall.

This experiment also tested for pre-experimental salience and gender effects. Gender was expected to have an affect as it was thought that females would have a higher recall and be more expert in the shampoo category than would males. Expertise should override the effect of salience as awareness differentials are expected to have greater impact on novice consumers (Alba and Hutchinson 1987).

Pre-experimental salience was operationalised through the cues used. Four cues in total were used in the experiment, with two high salience cues (Decore and Pert) and two low salience cues (Sunsilk and Silkience), as determined from a previous free recall exercise in an unrelated experiment. A further extension to the Alba and Chattopadhyay (1986) paper was the inclusion of a no salience (unaided free recall) condition to check the effect of the salience conditions had an on the recall of brands.

In both experiments, subjects were run individually. After completion of a basic task, subjects were given a piece of paper with one of the four brand names printed at the top. Subjects in the high salience condition were told to concentrate on the brand for one minute and to visualise the brand and the packaging. After one minute subjects were asked to list beneath the cue all of the brands of shampoo that they could recall. Subjects in the low salience condition were asked to commence recall immediately upon exposure to the cue. After 30 seconds subjects were asked to turn over the piece of paper and continue recalling brands. Subjects were given a total of four minutes for recall. All participants were undergraduate commerce students. A total of 90 subjects participated in this experiment (30 in each condition).

**Table 1 - Mean Recall of Non-Cued Brands Recalled for Experiment 1**

Condition	Recall 30 sec	Recall 30 sec	Total Recall	Total Recall
	A & C	Replication	A & C	Replication
Control	N / A	<b>3.73</b>	N / A	<b>9.19</b>
High Salience	N / A	<b>3.19</b>	8.88	<b>7.5</b>
Low Salience	N / A	<b>2.34</b>	10.44	<b>7.07</b>
Difference	0.78	<b>0.54</b>	1.56	<b>0.43</b>
F Value	7.5	< <b>1</b>	6.39	< <b>1</b>
p Value	<.01	<b>NS</b>	<0.02	<b>NS</b>

A & C - Alba, J. W. and Chattopadhyay, A (1986); NS = finding not statistically significant  $P > 0.1$ ; N/ A = not available

The results for the experiment indicate that the experimental manipulation of salience had no effect on the recall of competing brands by the subjects in the experiment. There was no statistically significant difference between the total recall for high versus low salience conditions, compared with Alba and Chattopadhyay (1986) who found statistical significance. Gender effects were found to be significant ( $F = 16.3$ ,  $p = 0.002$  c.f. A & C;  $F = 11.13$ ,  $p = 0.002$ ) for this experiment, which is consistent with the findings of Alba and Chattopadhyay (1986). The pre-experimental salience factor was not found to have a significant effect on the recall of competing brand and was not found to interact with the other variables to a significant degree ( $F < 1$ ), these results concurred with the original study.

## Experiment 2

In order to increase generalisability of the salience effect, the product category of breakfast cereal was used in this experiment. Due to the lack of pre-experimental salience for Experiment 1, only one brand was used in the high salience category. In line with the original study, two new conditions were introduced. To further heighten salience in this case subjects in the high salience condition were asked to read a mock print ad for the product (Kellogg's Corn Flakes). The advertisement consisted of an 80-word blurb, which was mostly puffery. To reduce the possibility that subjects in

the high salience condition for Experiment 1 were suffering fatigue from the rehearsal task, subjects in the low salience condition were asked to concentrate on an unrelated brand from a different category (Sports Craft clothing) for one minute before recall of cereal brands. The procedure was the same as in Experiment 1, although no significant gender effects were found in the original study. A total of 120 subjects participated in this experiment, 30 in each condition.

**Table 2 - Mean Recall of Non-Cued brands for Experiment 2**

Condition	Recall 30 sec	<b>Recall 30 sec</b>	Total Recall	<b>Total Recall</b>
(Salience)	A & C	<b>Replication</b>	A & C	<b>Replication</b>
High (Brand)	3.70	<b>3.03</b>	14.30	<b>11.07</b>
High (Ad)	3.61	<b>2.67</b>	12.57	<b>10.17</b>
Low	5.26	<b>3.63</b>	17.61	<b>9.37</b>
Control	N / A	<b>7.93</b>	N / A	<b>9.10</b>
F Values	10.98	<b>4.38</b>	5.51	<b>5.51</b>
p Values	< .001	<b>&lt;.02</b>	< .01	<b>&lt;.05</b>

Alba and Chattopadhyay (1986) again found differences between the two high salience conditions and the low salience condition in their experiment. These differences were again significant at the 30-second mark and also after the allotted time for recall was complete. There were no gender effects found in the experiment in the original study. The results gained in the replication were once again different with rehearsal effects (salience) found to exert a statistically significant inhibiting effect at the 30-second mark which changes to a statistically significant facilitating effect overall.

There was also a gender effect in the replication study ( $F = 4.12$ ,  $p < .04$ ) with females having greater recall than males. This could be explained by the fact that the females interviewed in the whole for this sample were slightly older and may have assumed the cereal-buying role for the family.

### **Conclusion and Implications**

The purpose of undertaking a replication study is to either support to some degree or falsify to some degree the findings of the original study. The results of the replication are a falsification of the findings of the original study by Alba and Chattopadhyay (1986). The research findings of the original experiment, that a single cue can have an inhibitory effect on recall of competing brands, were not reflected in the findings of this replication study. A trend in the reverse direction was found, where recall using a single highly salient brand as a cue, was higher overall.

### **Theoretical Explanation**

According to the associative network model of memory, the one-minute rehearsal period may enable subjects to more easily access relevant information in memory by activating more nodes and allowing the formation of links in memory. This should facilitate recall overall, compared with consumers who did not study the cue brand for an extended length of time. The two experiments in this paper showed a pattern of inhibition for the low salience group, slight inhibition for the high salience group and facilitation for the control group. The replication study found that for both experiments recall for

control > high salience > low salience. This is in contrast to Alba and Chattopadhyay (1986) who found control > low salience > high salience.

The findings in this replication could be explained by the fact that category cues tend to facilitate recall (therefore high recall by the control group) whereas part-category cues tend to inhibit recall/salience conditions (Dong, 1972).

### **Prior Empirical Support**

The main support for the facilitating effect of a single cue comes from previous research that shows that multiple cues are required to inhibit recall in consumers memory (Nickerson 1984; Nedungadi 1993). Consumers also undertook directed learning of the cue brand in the high salience condition for one minute prior to recall. This amount of directed learning would enable more efficient encoding and increase the accessibility of the cue brand in memory. Tulving & Donaldson (1972) indicate that cues facilitate recall if presented during learning and recall. In the experimental procedures followed in this paper, cues were presented during learning and recall and thus a facilitating effect was expected.

### **Limitations of the Current Study**

The operationalisation of salience by getting subjects to concentrate on the brand for one minute, whilst appropriate in experimental conditions, does not translate well into real-life conditions where consumers are bombarded with cues and advertisements continuously and cannot escape the effect of cues. Even the most creative advertisement could not hope to achieve this level of success. Respondents were given several minutes to recall brands. In a realistic brand choice situation, the consumer may operate on a time heuristic when making a purchase decision for a low involvement product such as coffee (Dickson and Sawyer 1990). Therefore, the consumer may decide that after 30 seconds they will make a choice from the brands they have recalled. In this instance the high salience effect might inhibit recall of competing brands. However, over the full time period in this experiment no inhibition was exhibited.

The method of counting only non-cued brands in calculating mean brand recalled in the high salience condition may have skewed the reported level of inhibition for high salience conditions. In the high salience condition, the cue brand would be expected to be the most salient and was therefore recalled the most often in the first 30 seconds. This inhibition effect decayed by the completion of the fully allotted time for recall. Across all experiments and all conditions subjects recalled a high number of cue brands, which were not counted in the high salience condition, but were counted in the lower salience conditions, and this may impact on the ratio rule used to support the salience hypothesis (see Miniard et al, 1989). A Kolmogorov-Smirnov test may have been used to test the significance of the rank orderings.

## Future Research

Future research in this area should concentrate on developing a more realistic operationalisation of the salience concept using more realistic settings. The use of point of purchase advertising could then be tested in order to measure the efficacy of this form of promotion in altering the state of salience in consumers. Extending the subjects beyond students to different groups of consumers would also help to further increase the external validity of the experimental procedure.

## Bibliography

- Alba, Joseph W. and Chattopadhyay, Amitava (1986). "Salience Effects in Brand Recall." *Journal of Marketing Research*, 23, 363-9.
- , and Hutchinson, J. Wesley (1987). "Dimensions of Consumer Expertise." *Journal of Consumer Research*. 13, 411-54.
- Anderson, John (1983). "The Architecture of Cognition." Harvard University Press: Cambridge, MA.
- , and Bower, Gordon H. (1979). *Human Associative Memory*. Hillsdale N.J.: Lawrence Erlbaum.
- Dickson, Peter R. and Sawyer, Alan G. (1986). "Point-Of-Purchase Behaviour and Price Perceptions of Supermarket Shoppers." Marketing Science Institute: Cambridge, MA: MSI.
- Dong, Tim (1972). "Cued Partial Recall of Categorized Words." *Journal of Experimental Psychology*. 93 (1) 123-129.
- Ehrenberg, Andrew S. C. (1974). "Repetitive Advertising and the Consumer." *Journal of Advertising Research*. 14, 25-34.
- Leone, Robert P. and Schultz, Randall L. (1980). "A Study of Marketing Generalizations." *Journal of Marketing*. 44, 10-18.
- Miller, Stephen and Berry, Lisette (1998). "Brand salience versus brand image: Two theories of advertising effectiveness." *Journal of Advertising Research*. 38 (5), 77-83.
- Miniard, Paul W. Unnava, H. Rao and Bhatla, Sunil (1989). "Inhibiting brand name recall: A test of the salience hypothesis." *Advances in Consumer Research* 16, 264-270.
- Nedungadi, Prakash (1990). "Recall and Consumer Consideration Sets: Influencing Choice Without Altering Brand Evaluations." *Journal of Consumer Research*. 17 (December). 263-276.
- Nickerson, Raymond S., Smith, E. E. and Wallach R. (1984). "Memory for search of semantic categories following exposure to category instances." Manuscript submitted for publication in Nickerson, Raymond S.(1984). "Retrieval inhibition from part-set cuing: A persisting enigma in memory research." *Memory and Cognition*. 12 (6), 531-552
- , (1984). "Retrieval inhibition from part-set cuing: A persisting enigma in memory research." *Memory and Cognition*. 12 (6), 531-552.
- Roediger, Henry L. III (1974). "Inhibiting Effects of Recall." *Memory and Cognition*. 2 (2), 261-9.
- , and Neely, James H. (1982). "Retrieval blocks in episodic and semantic memory." *Canadian Journal of Psychology*. 36 (June), 213-242.
- Rundus, Dewey (1973). "Negative effects of using list items as recall cues." *Journal of Verbal Learning and Verbal Behavior*. 12, 43-50.
- Tulving, Endel and Donaldson, Wayne (1972). "Organisation of Memory." Academic Press: NY.