

THE EMOTIONAL ASPECT OF PRODUCT INVOLVEMENT¹

Judith Lynne Zaichkowsky, Simon Fraser University²

Abstract

Several products proposed to have varying degrees of emotion and involvement were measured and classified using the PII. Products were generally classified as expected with the exception of personal computers, which were perceived by the sample to have an emotional aspect. Some differences in product perception were found between males and females.

Introduction

Some current work on involvement manipulates the construct in terms of a cognitive/rational thought or in terms of an emotional or affective reaction to the stimulus in question (e.g., Park and Young, 1983, 1986). This view is appealing given the thrust of interest on emotional states in advertising. However, the method used to measure that affective level of involvement needs to be refined in order to facilitate research on the topic. It is the purpose of this paper to provide discussion and present some exploratory empirical work on measuring the emotional component of involvement perceived in product categories.

Background

When developing the Personal Involvement Inventory (Zaichkowsky, 1985), an investigation of the dimensionality and interpretation of the 20-item scale was carried out for each product category. Although one major factor always emerged, the individual item loadings on that factor varied across products. For certain products, several of the 20 items correlated and loaded more heavily on the residual factor that accounted for a minor percent of the variation. These items were boring-interesting, unexciting-exciting, mundane-fascinating and appealing-unappealing and on a face validity judgment seemed to represent the emotional or arousing side of involvement. For other products, these same items did load highly on the first major factor. An example of the factor loadings for the product categories of bubble bath and headache remedies displayed in Table 1 exemplifies this pattern. At this point I thought it might be possible to describe the involvement state of the subjects to the product, in terms of an emotional or cognitive relationship via the weights of the item loadings. For example, bubble bath might be described as an emotional or affective product, while headache remedies might be described as a cognitive or rational product, depending upon the loading of the affective word-pairs. Yet for other products this classification in terms of an emotional or rational type product may be inappropriate since no such pattern emerged (e.g., 35mm cameras). Both types of items were used equally by the subjects to describe their involvement level with the object. So although the PII was developed to measure involvement as high or low, the question of whether it could be used in a more complex manner arose.

¹The author wishes to thank Jon Greenesid for his careful computation of the data collected for this study. Constructive criticisms received from Gary Mauser of S.F.U. and the faculty at Penn State University were gratefully received and incorporated into this paper. The initial idea for this paper came from an anonymous JCR reviewer of the 1985 scale development article.

²Mailing address: Faculty of Business Administration, Simon Fraser University, Burnaby, British Columbia, Canada V5A 1S6.

TABLE 1
FACTOR LOADINGS FOR BUBBLE BATH
AND HEADACHE REMEDIES

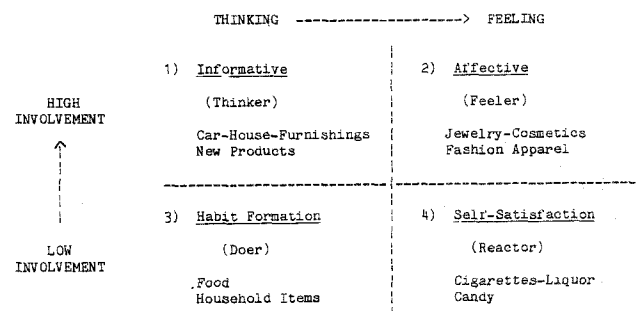
ITEM	Bubble Bath: N=45		Headache Remedies: N=68	
	Factor One	Factor Two	Factor One	Factor Two
Important	.35	.67	.86	.17
Of no concern#	.25	.75	.76	.19
Irrelevant#	.42	.74	.82	.24
Means a lot to me	.37	.58	.75	.41
Useless#	.54	.59	.75	.22
Valuable	.28	.41	.90	.20
Trivial#	.28	.58	.71	.21
Beneficial	.73	.18	.77	.25
Matters to me	.20	.33	.80	.34
Uninterested#	.57	.54	.65	.45
Significant	.29	.26	.85	.33
Vital#	.17	.35	.78	.34
Boring#	.82	.28	.16	.80
Unexciting#	.86	.37	.21	.76
Appealing	.80	.35	.36	.78
Mundane#	.77	.17	.30	.85
Essential	.23	.70	.76	.26
Undesirable#	.86	.33	.64	.46
Wanted	.72	.42	.66	.37
Not needed#	.36	.73	.36	.36
Eigenvalue	12.75	1.87	12.34	1.67
Percent Common Variance Accounted For	81.9%	12.0%	88%	12%

item is reverse scored

Related Theoretical Work and Framework for Testing the Emotional Side of Involvement

In a 1980 *Journal of Advertising Research* article, Vaughn outlined a theoretical perspective for viewing product categories which added a second dimension orthogonal to the notion of high and low involvement. The second dimension was one of thinking versus feeling. This model departs from the traditional model which implies that high involvement products require a thinking or cognitive orientation first, whereas low involvement products are more suited to an affective or non-informational appeal (Engel and Blackwell, 1982). The expansion of involvement along an orthogonal continuum from thinking to feeling allows a more complex approach which perhaps takes into account the excitement that accompanies certain purchases. Specifically, Vaughn (1980) proposed the following classification scheme for products:

FIGURE 1
FOOTE, CONE AND BELDING
PRODUCT CATEGORY CLASSIFICATION SCHEME



The first quadrant is high involvement/thinking and implies a large need for information because of the importance of the product and thinking issues related to it. In the second quadrant the product decision is involving, but specific information is less important than an attitude or holistic feeling toward the product. The third quadrant is low involvement/thinking and product decisions in this area are hypothesized to require minimal thought and a tendency to form buying habits for convenience. The fourth quadrant is the low involvement/affective and is reserved for those products that satisfy personal tastes (Vaughn, 1980).

The implication for advertisers is that the different quadrants require different types of advertising appeals. This notion is intuitively appealing because it allows for the emotional aspects frequently associated with certain products to be acknowledged and incorporated into the advertising strategy. Advertising copy for products perceived as informative, such as cars or new products, should focus on specific information. Advertising copy for habit formation products, such as food or household items, need only brand name reminder information. Affective products such as cosmetics or jewelry need emotional arousal in their advertising message, while self satisfaction products such as cigarette or liquor are thought to require ads which grab the receiver's attention. While I could find no empirical support for these propositions, it is likely that research is now being carried out to gather data on the question.

A very recent paper by Vaughn (1986) has tested out the product categorization scheme using three items to measure involvement: (1) very important/unimportant decision; (2) lot/little to lose if you choose the wrong brand; and (3) decision requires lot/little thought. The think/feel dimension was measured by two questions for think: (1) decision is/is not mainly logical or objective and (2) decision is/is not based mainly on functional facts; and three questions for feel: (1) decision is/is not based on a lot of feeling, (2) decision does/does not express one's personality, and (3) decision is/is not based on looks, taste, touch, smell or sound. Using these measures, Foote, Cone and Belding have classified product categories, brands and consumers into the four quadrants.

This paper also tests out Vaughn's product classification scheme but uses the Personal Involvement Inventory to do so. The thinking versus feeling dimension is replaced and measured by the amount of emotion found in the involvement measure. The emotional or affective side of involvement is represented by the factor loading of the word pair unexciting-exciting. The adjective of exciting is representative of the arousing aspect of emotion (Russell, 1983). The other word pairs of fascinating-boring or appealing-unappealing, which seemed to correlate with exciting on the PII, are not part of Russell's identified emotional adjectives and hence were not used. An independent judgement of the 20 PII items into emotional or rational categories proved unreliable across subjects. Hence this study measured involvement and then determined the emphasis placed on the emotional aspect perceived in the product through the word-pair unexciting-exciting to try and reconstruct Vaughn's (1980) classification scheme.

Method

Stimulus

Two product categories from each quadrant were selected for study. The high involvement/thinking category was represented by automobiles and personal computers. The high involvement/feeling category was represented by the product categories of diamond ring and cologne. The low involvement/thinking category was represented by ground beef and paper towels. The low involvement/feeling category was represented by the product categories of chocolate and cigarettes.

Subjects

A total of 230 subjects rated each product category. One hundred fifty three subjects were undergraduate business students, 90 females and 64 males,³ of which the median age was 21. Seventy-three were graduate business students; 33 male and 40 female, of which the median age 28.

Measuring Instrument

The Personal Involvement Inventory (PII) (Zaichkowsky, 1985) consists of 20 bi-polar adjectives which represent the involvement construct. Each item is rated on a seven point bi-polar scale. Adding up the responses from the 20 adjectives gives a possible low score of 20 and a possible high score of 140. Based on the average score obtained for the product, the product judged can be classified as either relatively high or low involving as perceived by the subjects. The derived mean for products is 90. Therefore product scores above 90 are considered relatively high involving product categories and scores below 90 are considered to represent relatively low involving product categories as perceived by the subjects.

By factor analyzing the 20 scale items, the weight given to the emotional component of involvement was determined by the factor loadings of the exciting item. These loadings should be between 0 and 1. An average loading below .5 would indicate a relatively low level of emotion and a loading between .5 and 1 would indicate a higher level of emotional involvement.

Procedure

Subjects were administered the Personal Involvement Inventory during the beginning of class time. Each subject rated all eight products and the order of product rating was randomized to control for fatigue and order effects. The total time taken to rate the products was about 10 minutes.

Results

The involvement levels of the eight product categories were tabulated over the total sample, as well as by sex and age group. These results are presented in Table 2 and the general pattern is in agreement with Vaughn (1980). Automobiles were perceived to be the most involving product category PII=131, while cigarettes were perceived to be the least involving product category PII=49. The other products thought to be low involving had average PII levels as follows: paper towels 83; ground beef 85; and chocolate 82. The high involvement product categories received the following PII scores: personal computer 108; cologne 99 and diamond ring 95.

Similar involvement scores were obtained across graduate and undergraduate subjects. The only significant difference between graduate and undergraduate students was in the involvement of diamond rings, with undergraduates being significantly more involved (M=99) than graduate students (M=86). More variation was observed between males and females within the product categories. For example, males rated their involvement with personal computers 112 while females rated personal computers 104 on the PII. Males rated diamond rings 81, whereas the females' average PII score was 105. This indicates males are more involved with computers than females and females are more involved with diamond rings than males.

³The sex of three respondents was unknown due to missing data

TABLE 2
MEAN PERSONAL INVOLVEMENT LEVEL BY
PRODUCT AND SUBJECT GROUP

Product:	Grand Total N=230	Total Grad N=73	Total U Grad N=157	Total Males N=97	Total Females N=130
1. Automobiles	131(10)*	130(11) _a	131(10) _a	132(10) _a	130(10) _a
2. Personal Computer	108(25)	109(25) _a	107(25) _a	112(19) _a	104(25) _b
3. Cologne	99(27)	94(32) _a	101(24) _a	91(27) _a	105(26) _b
4. Diamond Ring	95(29)	86(31) _a	99(27) _b	81(29) _a	105(26) _b
5. Paper Towels	83(23)	86(25) _a	82(23) _a	81(23) _a	85(24) _a
6. Ground Beef	85(25)	83(31) _a	86(22) _a	90(23) _a	82(26) _b
7. Cigarettes	49(36)	44(33) _a	51(37) _a	42(31) _a	54(36) _b
8. Chocolate	82(28)	81(29) _a	81(29) _a	74(25) _a	87(30) _b

* Standard deviations are in brackets after the PII score.
Scores less than 90 are considered low in involvement.
Subscripts a and b are significantly different from each other at $p < .05$.
(Graduates are compared to undergraduates and males are compared to females.)

Testing for the emotional loading was carried out by factor analyzing the 20 adjective pairs for each product. A varimax (orthogonal) rotation was used to pull the groupings of adjective pairs as far apart as possible. The factor loadings for unexciting-exciting for each product are presented in Table 3.

TABLE 3
FACTOR LOADINGS OF UNEXCITING-EXCITING
ACROSS PRODUCTS FOR THE TOTAL SAMPLE

Product	Factor Loading Unexciting-Exciting	% Variance Accounted for by the First Factor
Auto	.17	80%
Personal Computer	.81	83%
Cologne	.79	94%
Diamond Ring	.79	87%
Paper Towels	.17	75%
Ground Beef	.24	90%
Cigarettes	.57	94%
Chocolate	.67	90%

These factor loadings are as expected, except for the product category of personal computers, with average exciting loadings of .81. However, as predicted, autos (.17), paper towels (.17) and ground beef (.24) were all low in emotion, while cologne (.79), diamond ring (.79) and chocolate (.67) were all relatively high on the emotional loading.

Next, these two aspects of involvement, the PII score and the factor loading for exciting, were plotted in a two dimensional space. The first PII dimension is plotted from 20 to 140 with the average level of product involvement judged at 90 (Zaichkowsky, 1985). The second dimension is the average emotion factor score and is plotted from 0 to 1 with mean .5. The plots for the females $N = 130$ and males $N = 97$ are in Figures 2 and 3. From these plots we can see that automobiles, personal computers, paper towels, ground beef and cigarettes were similarly perceived over both male and female subjects. The product category of diamond ring shifted from high involvement for females to low involvement for males. Cologne which was a high involvement affective product for women shifted to the low emotion side of involvement for men. Chocolate which was predicted to be a low involvement affective product shifted to the thinking or habitual space for women. Perhaps women perceive chocolate more in terms of the calories it represents rather than the sensual taste.

FIGURE 2
PLOT OF LOW VS. HIGH AND EMOTIONAL
INVOLVEMENT LEVELS - FEMALES

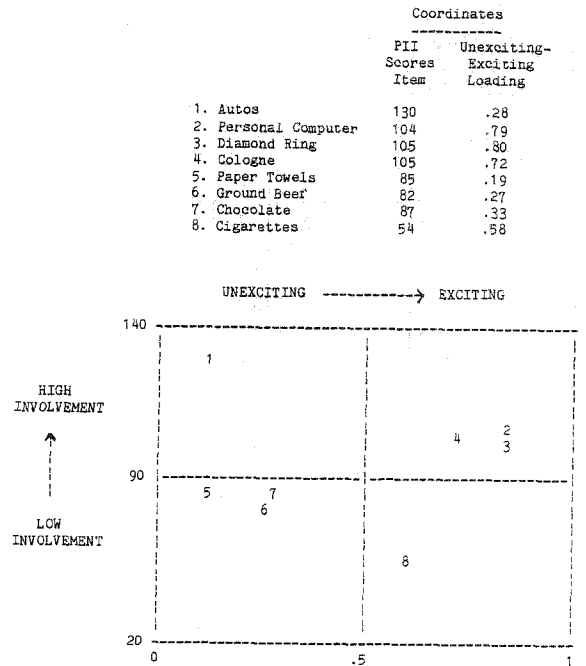
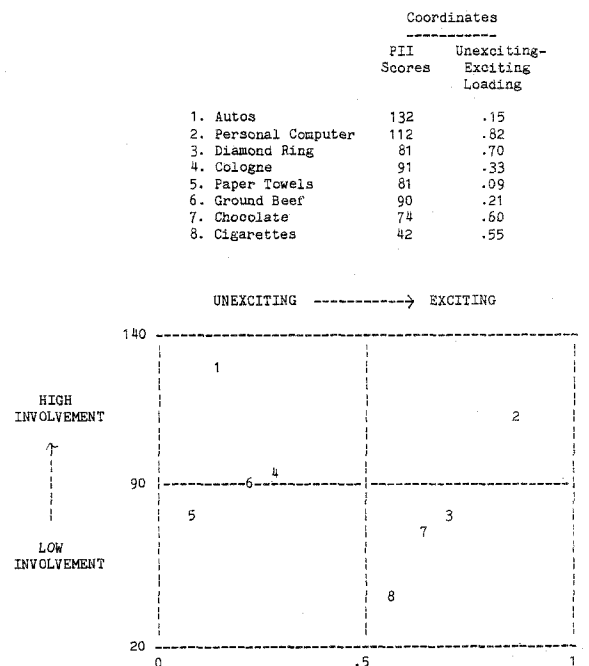


FIGURE 3
PLOT OF LOW VS. HIGH AND EMOTIONAL
INVOLVEMENT LEVELS - MALES



Discussion and Summary

The FCB model (Vaughn, 1980) for product classification was used as a framework for testing the use of the PII (Zaichkowsky, 1985). The results generally support the proposed product classification scheme. The consistent misclassification was in the product category of personal computers where they apparently were seen to have a great emotional or affective component in its perception. It may be that personal computers are viewed as an exciting, fascinating product category by the average student subject.

An important aspect to this paper is the variability among the males and females in their emotional perception of some product categories. Perhaps advertising chocolate to females should take on an informative role of calorie content. Can a calorie reduced chocolate bar be on the horizon? From these components of level of involvement and amount of emotion, some clustering of product users to brands of the product might be interesting.

The Next Step

The analyses presented in this paper represents a little science and some creativity. Psychometricians may cringe at the thought of taking a unidimensional measure and then pulling apart one item to determine the breadth of part of the scale. This whole exercise has led me to another rethinking of how to view and measure involvement, if indeed we agree that there is an emotional side to the construct. The next step in scale development is actually one backward to some of the original items for involvement which were eliminated after early rounds of data analyses. A wider range of stimuli needs to be judged against an unreduced scale and then the items should be reduced back to a smaller number. There are two main reasons for this further development process. First, from consumer demand and a practical point of view, it seems researchers want to use the scale many times at one sitting and, worried about subject fatigue, are ad hoc reducing the PII on their own. Fewer items might increase the ability to administer the PII many times to the same subjects in conjunction with lengthy questionnaires. However, the decision of which items to delete should be based on the same careful empirical work which developed the scale in the first place. Secondly, keeping with our theory of an emotional side to involvement, the reduced PII should have a consistently identifiable emotion component.

References

- Engel, James F. and Roger D. Blackwell (1982), Consumer Behavior, 4th edition, New York: The Dryden Press.
- Park, C. Whan and S. Mark Young (1983), "Types and Levels of Involvement and Brand Attitude Formation", in Advances in Consumer Research, Vol. X, eds., Richard Bagozzi and Alice Tybout, Ann Arbor Association for Consumer Research, 320-324.
- Park, C. Whan and S. Mark Young (1986), "Consumer Response to Television Commercials: The Impact of Involvement and Background Music on Brand Attitude Formation", Journal of Marketing Research, 23(February), 11-24.
- Russell, James A. (1983), "Pancultural Aspects of the Human Conceptual Organization of Emotions", Journal of Personality and Social Psychology, Vol. 45, No. 6, 1281-1288.
- Vaughn, Richard (1980), "How Advertising Works: A Planning Model", Journal of Advertising Research, 20(October), 27-33.

Vaughn, Richard (1986), "How Advertising Works: A Planning Model Revisited", Journal of Advertising Research, February/March, 57-66.

Zaichkowsky, Judith Lynne (1985), "Measuring the Involvement Construct", Journal of Consumer Research, 12(December), 341-352.

Copyright of *Advances in Consumer Research* is the property of Association for Consumer Research and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.