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**THE EFFECT OF ADVERTISING REPETITIONS AND BRAND SHARE ON**  
**RECALL, ATTITUDES, ATTITUDE CONFIDENCE, ATTITUDE**  
**ACCESSIBILITY, AND THE ATTITUDE-BEHAVIOUR RELATIONSHIP**

IRENE MARAVELAKIS

A Thesis

in

The Faculty of

Commerce and Administration

Presented in Partial Fulfilment of the Requirements

for the Degree of Master of Science at

Concordia University

Montreal, Quebec, Canada

May 1995

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## **ABSTRACT**

### **THE EFFECT OF ADVERTISING REPETITION AND BRAND SHARES ON RECALL, ATTITUDES, ATTITUDE CONFIDENCE, ATTITUDE ACCESSIBILITY, AND THE ATTITUDE/BEHAVIOUR RELATIONSHIP**

Irene Maravelakis

In this thesis, variables were sought that could explain both when and how attitudes predict behaviour. This paper reports on the effects of repetition in advertising, brand popularity, and competition, and their effects on attitudes, recall, attitude confidence, attitude accessibility and on the attitude-behaviour relationship.

The results showed that significant correlations of accessibility with behaviour were only found in the conditions where competitive advertising was not shown. There was some evidence, however, that attitude accessibility did have an effect on confidence and that attitude confidence moderated the attitude-behaviour relationship. Furthermore, it was found that advertising repetition affected accessibility of unfamiliar, low share brands, but not of high share brands.

Another finding was that competitive advertising had a detrimental effect on accessibility but only for the low share brands. Furthermore, high share brands only required low/moderate repetitions to make attitudes as accessible as possible, but low share brands required moderate/high repetition levels.

Evaluations for the high share brands were lower in the presence of competitive lower share brands, but evaluations of the low share brands were higher in the presence of competitive higher share brands. Finally, it was found that recall



for the high share brands increased more in the competition condition but recall for the low share brands increased more in the no competition condition.

The results of this study showed that further research needs to be accomplished in the area of attitude accessibility and its effect on the attitude-behaviour relationship.

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most of the lectures and actually PASS the course!!!

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**CHAPTER 1**  
**THE EFFECT OF ADVERTISING REPETITIONS AND BRAND SHARES ON**  
**ATTITUDE ACCESSIBILITY AND ON THE ATTITUDE-BEHAVIOUR**  
**RELATIONSHIP**

**INTRODUCTION**

Attitudes have been a main preoccupation of consumer researchers for many years and have become an important mediating variable in understanding the relationship between external stimuli and the consumer's behavioral responses.

The definition of attitudes can simply be stated as "evaluations of an object or concept".

Attitudes have often served as independent (i.e., predictor) variables in studies examining consumer behaviour wherein the explicit assumption has been that attitudes are good predictors of consumer behaviour. The assumption through the years has been that creating favourable attitudes will obviously result in increased sales. Studies in advertising have typically considered the effects of a communication, or its repetition, on an individual's cognitive structure. Throughout the years, it has been assumed that advertising variables must first change attitudes in order to change behaviour and that attitudes are highly predictive of behaviour.

## **CONCEPTUAL DEVELOPMENT - METHODOLOGICAL VS. MODERATOR APPROACHES**

As early as 1934 La Pierre demonstrated that attitudes are not necessarily predictive of behaviours. By 1969, the increased evidence led to conclude that it is "considerably more likely that attitudes will be unrelated, or only slightly related to overt behaviour than that attitudes will be closely related to actions" (Wicker, 1969, p. 65). Since then, researchers have generally approached the attitude behaviour relationship from either a methodological or moderator variable perspective. Those adopting a methodological perspective argue that attitudes are good predictors of behaviour, but that researchers have generally failed to operationalize and measure the attitude and behavioral constructs appropriately. Those adopting a moderator variable perspective concede that attitudes are often poor predictors of behaviour, and they seek to specify variables that moderate the relationship between attitudes and behaviour.

### **The Methodological Approach**

Ajzen and Fishbein (1977) examined the attitude/behaviour literature from a methodological perspective. They concluded that "people's actions are found to be systematically related to their attitudes when the nature of the attitudinal predictors and behavioral criteria are taken into consideration" (pg. 888). They concluded that attitudes and behaviours may be measured either generally or specifically with respect to action, target, context, or time elements. To achieve maximum attitude/behaviour consistency, attitude measures and behavioral measures must be at comparable levels

of specificity. Therefore, the appropriate attitudinal measure would then be the individual's attitude toward a certain act of, for instance, purchasing brand X at the supermarket. This perspective had given rise to the popularity of Attitude toward to Act (Aact) models of attitudes.

### **The Moderator Variable Approach**

The moderator variable approach evolved from the seminal work of Fazio and Zanna, which demonstrated that attitudes based on direct experiences were more predictive of behaviour than attitudes based on indirect experiences. Using this approach, several variables that moderate the relationship between attitudes and behaviour have been identified empirically. These variables include attitude confidence (Fazio and Zanna, 1978b), self-monitoring tendency (Snyder, 1982), direct experience with the attitude object, situational context, and attitude availability/relevance (Snyder and Kendzierski, 1982).

Fazio and Zanna (1981) suggested organizing the various moderators in terms of situational characteristics, personality traits and qualitative dimensions of the attitude. Fazio (Fazio et al, 1982, Fazio et al, and Fazio, 1986) has subsequently developed and partially tested a model of the process by which attitudes influence behaviour.

The model focuses on the proposition that the attitude accessibility variable may be the critical dimension moderating the attitude-behaviour relationship. Activated (or accessible) attitudes are thought to filter or bias an individual's immediate perceptions of the object, which influence the individual's definition of the

event, and thereby frames or influences subsequent behaviour with respect to the object.

In his model, Fazio postulates that attitude accessibility influences the likelihood that a previously formed attitude will be activated from memory in a behavioral situation. Fazio suggests that the attitude is automatically retrieved from memory upon exposure to the object and thereby the attitude influences behaviour. Furthermore, Fazio et al (1982, 1986) postulate that any variable that influences attitude accessibility will, as a consequence, influence the relationship between attitudes and behaviour. More accessible attitudes are more likely to be activated in a behavioral situation and, therefore, are more likely to influence perceptions and consequently behaviour.

Fazio et al. (1982) used a response latency task to operationalize accessibility and found that attitudes based on direct experience were indeed more accessible from memory than those based on indirect experience. They also found that attitudes made more accessible using a repeated expression manipulation were more predictive of subsequent behaviour than attitudes not repeatedly expressed.

This body of evidence also suggests that attitude accessibility can be increased by repeated expression and that it may be possible to make attitudes based on indirect experience as accessible as those based on direct experience, possibly making indirect experience attitudes just as predictive of future behaviour.

### **VARIABLES MODERATING THE A/B RELATIONSHIP**

A number of variables have been defined to act as moderators. Some of these are: qualitative dimensions of the attitudes, personality traits, and situational

characteristics.

### **Qualitative Dimensions**

As previously mentioned, it has been found that attitudes formed on the basis of a direct experience with an attitude object were more predictive of behaviour than attitudes formed on the basis of an indirect experience.

Fazio and Zanna, (1981) suggested that direct experience attitudes might differ from indirect experience attitudes in terms of three factors; (1) amount of information available, (2) manner of information processing and (3) manner of attitude storage and retrieval. They argued that direct experiences in general provide individuals with more information. Secondly that from direct experiences, individuals focus on, attend to and process information about their own behaviour with respect to the attitude object. Finally, attitudes formed on the basis of behavioral information may be stored in memory in such a way as to be more easily retrieved.

One such experiment was conducted by Fazio and Zanna. They were interested in the influence of attitude confidence on the a/b relationship. They found that subjects who directly experienced a series of intellectual puzzles behaved more consistently with their measured attitudes than subjects who did not actually try to solve the puzzles. The researchers also measured the confidence with which these attitudes were held. Subjects responded on an 11 point scale to the question "How confident are you in the ratings you have just made?" (Fazio and Zanna, 1978b, p. 232). As expected, subjects in the direct experience condition held their attitudes with considerably more confidence than subjects in the indirect condition.

### **Personality Traits**

It has been suggested that personality traits may influence the strength of the relationship between attitudes and behaviour. Some individuals may, in general, behave in a manner more consistent with their attitudes than others. The variable self-monitoring tendency (Snyder, 1979) has been frequently suggested (and tested) in this context. Low self monitors are usually described as individuals who behave in accordance with inner states and personal predispositions. High self monitors on the other hand are guided by situational information and cues. As long as attitudes are defined as inner states or predispositions (as is usually the case) low self monitors should demonstrate higher attitude-behaviour consistencies than high self monitors.

Snyder and Swann (1976), Zanna et al (1980) and Olson and Zanna (1980) each reported that the attitudes of low self monitors were more predictive of behaviour than high self monitors.

### **Situational Characteristics**

It has been suggested that situations which individuals face may influence the ability of attitudes to predict behaviour. The position taken is that characteristics or aspects of a behavioral situation may cue or prod individuals to consider their attitudes before behaving.

Salancik (1982) examined the social context of behavioral situations. He found that by varying the context of a behaviour in terms of its personal implications to an individual, attitude-behaviour correlations varied. Salancik suggested that as the personal implications of an individual's attitude become salient in the behavioral

situation, their behaviour will become more consistent with those attitudes.

Snyder and Kenzierski (1982) showed that individuals provided with the opportunity to adopt an advocacy role (thereby defining attitudes as relevant guides to behaviour) behaved more in accordance with their attitudes. They labelled this the "attitude-relevant" condition. Borgida and Campbell (1982) also found that subjects who were unobtrusively cued to consider their own attitudes as relevant guides to behaviour behaved more consistently with their attitudes than non-cued subjects .

### **The Validity of the Methodological Argument**

The methodological approach to the attitude-behaviour consistency debate was briefly outlined earlier. Recall that Fishbein and Ajzen (1975, 1980) argued that variables have been found moderating the a-b relationship because of temporal instabilities in the predictor variables. If the predictor variable were measured directly before the criterion measure, and if the variables were measured at comparable levels of specificity no such moderating effect would be found.

Sherman et al (1982) tested this argument in the context of the Fishbein and Ajzen behavioral intentions model. Attitudes toward the act, Subjective Norms and Behavioral Intentions toward smoking were measured on a single instrument. Level of direct experience with smoking was also measured. The results contradicted the methodological explanation. Even when the predictor variable was measured at the same time and at comparable levels of specificity as the criterion variable, the level of direct experience moderated the strength of the a-b intention relationship. Attitude toward the act intentions correlations were significantly higher for students with high

behavioral experience than for low experience students.

Importantly, when using multiple regression to analyze the relative influence of attitudes and subjective norms on intentions, Sherman et al found that the weight on the attitudinal component (regression correlation coefficient) varied with experience. The weight of the attitudinal component was significantly higher for high experience respondents than for low experience respondents. Identically they analyzed a single regression equation which included an attitude  $\times$  direct experience interaction term and found the interaction term to contribute significantly to the prediction of behavioral intentions. Direct experience therefore, moderated the form of the relationship between attitudes and behavioral intentions.

Manstead, Profitt and Smart (1983) also examined the influence of direct experience in the behavioral intentions model. They also reported that the weight of the attitudinal component was greater for experienced, than for inexperienced subjects.

These findings question the methodological explanation, at least with respect to the relationship between attitudes and behavioral intentions. It does appear that the manner of attitude formation moderates the degree of the relationship between attitudes and behavioral intentions, even when the methodological prescriptions are adhered to.



### **Marketing Examples of Moderating Influences**

Marketing researchers have also found evidence of the moderating influence of direct behavioral experience.

Wilson, Mathews, and Harvey (1973) found that the behavioral intentions model predicted behavioral intentions better for brands in a subject's evoked set as opposed to brands not in the evoked set. Whether or not a brand is in a subject's evoked set appears to moderate the strength of the relationship between brand attitudes (and subjective norms) and brand purchase intentions.

Bonfield (1974) found that the weight of the attitudinal component in the behavioral intentions model was greater for individuals with "wide" rather than "medium" brand experience. Brand experience was defined in terms of the variety of people served with the brand (i.e, children, husbands, friends etc.). Again this indicates that the kind of experience upon which the attitude is formed moderates the form of the relationship between attitudes and behavioral intentions.

**CHAPTER 2**  
**THE ROLE OF ATTITUDE ACCESSIBILITY IN THE ATTITUDE TO**  
**BEHAVIOUR RELATIONSHIP**

Fazio, Powell, and Williams (1989), measured attitude accessibility via latency response to an attitudinal inquiry. The latency measure has been found to reflect what has been postulated to be the conceptual variable that determines the chronic accessibility of an attitude - namely, the strength of association between the object and the evaluation. A number of experiments have manipulated the strength of this object-evaluation of association by having subjects express their attitudes repeatedly. Second, and more important, the latency measure provides a good approximation of the likelihood that the attitude will be activated from memory automatically upon mere observation of the object. It has been demonstrated that attitude objects pre-selected on the basis of an individual's having responded quickly to an attitudinal inquiry are more likely to activate the attitude automatically upon subsequent presentation of the object than are attitudes characterized by relatively slow latencies of response to an attitudinal inquiry. Thus, the latency with which one responds to an attitudinal inquiry is sensitive to the strength of the object-evaluation association and provides an indication of the likelihood that the attitude will be activated spontaneously upon one's encountering the object.

The findings of this study were consistent with the hypothesis that attitude accessibility exerts a moderating role upon the attitude behaviour relation. Observation of the object automatically activated the attitude from memory if the

chronic accessibility of the attitude, as estimated by a relatively fast latency of response to an earlier attitudinal inquiry, was high. Such activated attitudes strongly determined the subjects' feelings toward the object in the immediate situation. If the object evaluation association for a given product was weak and, hence, the chronic accessibility was relatively low, then the immediate perception was likely to be influenced by momentarily salient thoughts or features of the object.

### **PRODUCT POSITIONING AND THE CONSIDERATION SET**

Roskos-Ewoldsen and Fazio (1989) found that a hypothetical individual A will quickly and easily notice those products concerning which accessible attitudes are held even if those items are positioned in the relatively disadvantageous back row. In other words, the perception or appraisal of the product in the immediate situation, determined by a negative attitude activated from memory, will lead to its rejection. In contrast, those products that are both positively valued and characterised by high attitude accessibility are likely to be included in a person's consideration set.

### **AFFECT REFERRAL**

Affect referral is a decision making strategy in which the individual avoids reviewing any specific attribute information concerning the alternatives, but instead relies upon previously formed, global affective judgments of the alternatives. A strong object-evaluation association in memory and, hence, a highly accessible attitude is a pre-requisite for such affect referral. In such a case, the attitude will be activated from memory and influence, if not completely determine, the individual's appraisal of

the object in the immediate situation. With a highly accessible attitude, the immediate appraisal is more likely to be congruent with the attitude stored in memory than it is when a relatively inaccessible attitude is involved. Active construction of an immediate appraisal is not necessary.

## CHAPTER 3

### THE FAZIO PROCESS MODEL

#### THE MODEL

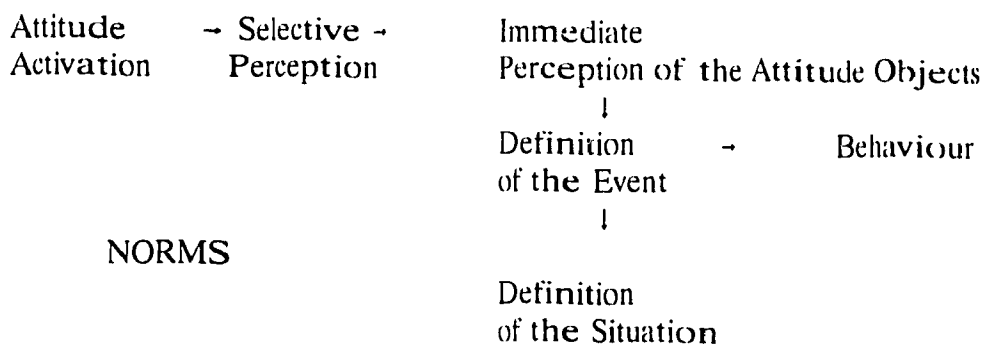
Fazio (1982, 1986) has used the research on the qualitative dimensions to develop a model of the process by which attitudes guide behaviour. This model seems the logical starting point for marketing researchers, not only because it generalized across both individuals and behavioral situations, but also because it builds on the direct/indirect experience notions already introduced in the marketing literature. Furthermore, it offers the greatest promise in terms of marketing relevance and managerial implications.

Fazio begins by suggesting that an individual's behaviour is a direct function of his/her perceptions of the particular event in question. One's immediate perception of the event (or definition of the event, as Fazio puts it) mediates the influence of all other exogenous variables. Therefore, the extent to which attitudes influence perceptions determines the extent to which attitudes can influence behaviour. The definition of the event is composed of two unique perceptions - the perception of the attitude object and the perception of the situation in which the object is encountered. The extent to which attitudes about the object can influence perceptions of the object within the situation at hand determines the extent to which attitudes can influence behaviour. Attitudes can only influence object perceptions (and thereby behaviour) to the extent that they are activated from memory. The question then becomes when (and why) are attitudes activated?

For the why question, Fazio looks to Katz's (1960) functional theory of

attitudes and argues that attitudes are used to "organize a complex, unstructured world". Individuals therefore, form and use their attitudes in order to simplify their everyday activities. However, the thrust of this model is that individuals do not always use (or activate) their attitudes. Attitudes may be "cued" in a controlled fashion by a situational characteristic. Recall that some situations "cue" individuals to consider their attitudes as relevant guides to behaviour. Alternatively, attitudes may be activated automatically. Fazio has been most concerned with these - attitudes which in the absence of situational cues, are automatically activated.

### **Fazio Process Model**



(From Fazio, 1986; Figure 1)

Fazio et al define attitudes as a categorization of an object along an evaluative dimension. They view an attitude as an association in memory between the representation of a given object and its evaluation. An association may vary in terms of its strength or activation potential (accessibility). The question then becomes: what is the impact of this attitudinal dimension (its accessibility) on the attitude-

behaviour relationship. If only attitudes which are accessed can influence behaviour, then attitude accessibility should very clearly influence the degree of relationship between attitudes and behaviour.

Fazio, Powell and Herr (1983) define attitude accessibility conceptually as the likelihood or readiness with which attitudes can be retrieved from memory, (p. 724). Accessibility has been operationalized as the speed with which an individual can respond to a direct inquiry about his/her attitudes. The model assumes that attitude accessibility (measured by response latency) is reflective of the likelihood that the attitude will be automatically activated upon exposure to the object (p. 725).

Fazio et al use the construct of attitude accessibility to explain why the qualitative dimensions noted above moderate the strength of the a-b relationship. They suggest that attitudes formed on the basis of direct experience, or attitudes that are confidently held, well defined, temporally stable, consistent across components are more consistent with behaviour because they are more accessible. Furthermore, they contend that any variable which "affects attitude accessibility will similarly affect the attitude-behaviour relationship". This proposition may be labelled the "accessibility hypothesis".

Powell and Fazio (1984) further explored the relationship between repeated expression and attitude accessibility. They varied the number of times subjects expressed their attitudes (0, 1, 3 or 6 times) and measured the resultant response latencies. In this case, the attitude objects were 12 "socially important and controversial issues" (p. 140, i.e., abortion, gun control, etc.). They found that as attitudinal expressions increased, latencies decreased but at a decreasing rate. Later

repetitions did not have as strong an effect as earlier ones.

The Fazio et al, (1982) and the Powell and Fazio (1984) studies demonstrate that it is possible to alter (or manipulate) attitude accessibility, and that indirect experience attitudes can be made as accessible as direct experience attitudes.

More importantly, Fazio has speculated that several of the qualitative dimensions of attitudes (affective-cognitive consistency, attitude confidence, attitude clarity, temporal stability) and the personality variable, self-monitoring tendency, may operate via the accessibility process. Whether or not the concept of accessibility can in fact integrate all or many of the variables known to moderate the a-b relationship, remains an empirical question. Recall that some of the qualitative dimensions (manner of attitude formation, attitude certainty and latitude of rejection) were found to moderate both the degree and form of the a-b relationship. The nature of the moderating influence of accessibility needs to be systematically examined.

From a theoretical perspective, it appears that accessibility moderates only the strength of the relationship. The Fazio model focuses on "whether" the attitude is used to guide behaviour. Whether or not the attitude is activated from memory can be seen to influence whether or not the attitude "clouds" an individual's perception of an object or event at the time of behaviour. This model thus suggests "when" the attitude is part, and when it is not part of the behavioral decisions.



### **EVIDENCE REGARDING THE ACCESSIBILITY HYPOTHESIS**

Using response latency as a measure of attitude accessibility, Fazio, Chen, McDonel and Sherman (1982) showed that the attitudes of subjects who had direct experiences with a series of intellectual puzzles were significantly more accessible than the attitudes of indirect experience subjects. In a second experiment, indirect experience subjects expressed their attitudes repeatedly. They answered an attitudinal questionnaire 3 times. The attitudes of repeated expression were significantly more accessible than those of indirect experience (no repetition) subjects. In fact, the repeated expression attitudes were more accessible than the direct experience attitudes.

Furthermore, when given a behavioral opportunity, individuals who repeatedly expressed their attitudes behaved in a manner more consistent with their attitudes than non repeaters, however the differences between the correlations only "approached" significance. The significance levels for the average of the two dependent measures was only .11. Attitudes as measured by the interest scales did not differ between conditions in any of these experiments.

### **EVIDENCE REGARDING THE AUTOMATIC ASSUMPTION**

The Fazio model suggests that attitudes that are highly accessible are automatically activated from memory upon mere exposure to an object. Fazio, Powell and Herr (1983) were interested in testing this proposition. To examine whether individuals actually access their attitudes spontaneously when these attitudes are highly accessible they used a priming methodology common to social cognition studies.

Research has demonstrated that activation of a category in memory (priming) temporarily increases the accessibility of the category and increases the likelihood that the category will be used to interpret new, in-coming information (Higgins, Rhodes and Jones, 1977, Srull and Wyer, 1979, 1980).

In an initial experiment subjects were first primed with either positive or negative adjectives and then asked to give reasons for the ambiguous behaviour of a fictitious person. The results indicated that subjects who were primed with positive adjectives were more likely to attribute the behaviour of the fictitious person to interest in the task than subjects primed with negative adjectives.

In a second experiment, subjects were each primed with an object that they had evaluated either positively or negatively. Attitudes toward the objects were created in 3 ways: through direct experience, indirect experience with no repetitions or indirect experience with repeated attitudinal expressions (3 times). When presented with the ambiguous behaviour to interpret, subjects who formed their attitudes on the basis of direct experience or who repeatedly expressed their attitudes gave reasons for the ambiguous behaviour of the fictitious person which were more consistent with their attitudes toward the primed object than the no repetition subjects. The results imply that attitudes which are more accessible (direct experience and repeated expression as measured by Fazio et al, 1982) are also more likely to be spontaneously activated upon mere observation of the object.

In a more recent series of experiments Fazio, Sanbonmatsu, Powell and Kardes (1986) again used a priming procedure to test whether attitudes strongly associated with an attitude object are automatically activated upon mere presentation of the

object. They measured whether presentation of an object with strong evaluative associations could facilitate the latency with which subjects indicated whether a target adjective had a positive or negative connotation. They argued that if positive attitudes are automatically activated upon mere exposure to an object prime, then the time necessary to indicate the connotation of a subsequently presented positive adjective will be reduced, and the time necessary to indicate the connotation of a negative adjective will be increased, relative to a neutral prime.

These propositions were tested in 3 experiments. The first two used attitudinal primes which differed in associative strength naturally. Here, latencies for attitudinal inquiries were measured for 70 objects, and fast latency objects were defined as strong associative primes and slow latency objects as weak associative primes. The third used attitudinal primes whose attitude object associations were experimentally manipulated using a repeated expression manipulation. Facilitation was found only for objects with strong associative strength, in all 3 experiments. Consequently the results of the 3 studies support the proposition that attitudes that are characterized by strong object-evaluation associations are automatically activated upon mere observation of the attitude object.

### **CREATING ACCESSIBILITY**

Research reviewed earlier clearly indicates that direct experiences with an attitude object create relatively high levels of attitude accessibility. Furthermore, repeated expression also creates relatively high levels of accessibility. In order to understand this later phenomenon, "Associative Network Models" of memory will be reviewed.

### Associative Network Models of Memory

Evidence has already been cited that repeated attitudinal expression increases accessibility and the strength of the a-b relationship. To understand this, one must consider Associative Network Models of memory (Collins and Loftus 1973, Anderson 1983). These models postulate that knowledge (information) is stored in long term memory in the form of nodes and arcs (associations between nodes). Further, nodes and arcs can vary in strength reflecting differences in accessibility. In general, node or arc strength is simply a function of recency and frequency of activation.

Hayes-Roth (1977) presented evidence that "configurations of nodes and arcs can be strengthened to the point of unitization such that the configuration then acts as a discrete, all or none activatable memory representation". This process of unitization is thought to take place as a configuration is repeatedly activated as a unit.

Using this model, the representation of an attitude-object in memory can be viewed as a series of nodes and arcs. Most of the nodes are expected to contain information about the attitude-object. One of the nodes in the memory structure may represent the evaluation of the attitude-object. The strength of the link between the object node and the evaluation node would then represent the accessibility of the attitude. The more often (frequency) and the more recently (recency) these nodes and links are activated the stronger and hence more accessible they become. Furthermore, the more often the object and evaluation nodes and the arc between them are activated concurrently, the more likely that the configuration will become unitized. Once unitized, the entire unit is spontaneously activated in all or none fashion, when any of its parts are activated.

The relevance of this theory to the repeated expression manipulation is obvious. The repeated expressions can be viewed as strengthening the association (arc) between the object and the evaluation node by frequent activation. Repeatedly associating an object node and its evaluation should increase the likelihood that the evaluation (attitude) will be spontaneously activated upon mere exposure to the object. Furthermore, any manipulation which strengthens the association between the object and the association should increase the accessibility of the attitude, and (according to Fazio) increase the attitude-behaviour relationship.

Anderson (1983) has postulated that each time a cognitive unit is activated (in this case the representation of the object) its own strength and the amount of activation which it sends into the network through its associations increases. This proposition, known as spreading activation, suggests that repeatedly activating an object representation may increase the strength or accessibility not only of the object itself, but also of all its associations. Thus, assuming that the evaluation is already associated with the object, repeatedly activating the object itself may increase the strength of the association between the object and the evaluation.

It may therefore be possible to increase attitude accessibility by repeatedly activating the object and its evaluation or simply by repeatedly activating the object itself. Though it is not known for certain, the second strategy may require more repetitions to achieve the same level of accessibility.

## **CHAPTER 4**

### **USING RESPONSE LATENCY TO MEASURE ACCESSIBILITY**

Marketing researchers now use several measures of "preference", including constant sum scales, lottery choices, purchase intention questions, and coupon redemption (Axelrod, 1968; Haley, 1970). These measures differ in terms of their reliability, validity, and practicability in a given research situation. In the 1980's, it had been suggested that response latency may be useful in measuring preference.

Response latency is the length of time taken by a respondent to make a paired comparison choice. Several researchers have shown that response latency measures strength of preference. The faster a choice is made, the stronger the preference for the selected alternative. The link between response latency and preference has been demonstrated in a variety of contexts. For example Dashiell (1937) asked respondents to select between colours and Barker (1946) used children to choose between beverage pairs. In the marketing context, Curry (1975) asked subjects to select between wines, MacLachlan and LaBarbera (1978) asked telephone interview respondents to select preferred television programs, MacLachlan (1977) had subjects choose between pairs of branded grocery products, and Tyebjee (1979) investigated the preferences and choices of respondents for beer.

In previous studies regarding accessibility, a subject's accessibility has been measured by using response latency or choice time measures. Decision time, or choice response latency has been considered to be a measure of strength of preference between choice alternatives. For a given choice decision among several

brands, it can be expected that if the brands are close together in the decision maker's preference structure, the choice will be more difficult, and hence take longer, than if one brand clearly dominates the others. If this conjecture is accepted, then a decision time may be a valuable response measure for scaling brand preference and predicting consumer choice behaviour. Furthermore, previous research by Mitchell and Berger has also shown that a shorter decision time about how a person feels about a product (attitude accessibility) can also be related to the degree to which one alternative dominates the other(s) in the preference structure.

Studies using response latencies are usually limited by one or more of the following factors: cumbersome response devices leading to inaccurate measurement of choice time; the aggregation of decision time across individuals; poor validation measures of preference structure; and the use of discrimination or recognition tasks rather than preference tasks. However, in general using response latency for measuring brand preference is an asset. Recent studies of this measure in advertising effectiveness research (MacLachlan, 1977) and telephone survey research (LaBarbera and MacLachlan, 1977; Sherill and Ray, 1971) give positive support to the potential of the measure in marketing applications.

The efficacy of response latency suggests that it be used in marketing research for several reasons. First, paired comparison preference measurement is frequently employed in part because constant sum scaling tasks are unwieldy in telephone interviewing or when the respondent is interfacing directly with a computer terminal. Furthermore, the combination of response latency and paired comparison is very likely to provide a measurement of preference that is superior to paired comparisons

by itself. Finally, response latency can be helpful in construct validation. Because a true test of construct validity requires "maximally different methods" to determine convergent and discriminant validity (Campbell and Fiske, 1959), response latency measures provide a needed method. Heretofore, construct validation studies in marketing have relied on similar self-reported methods. Finally, by serving as a multiple measure of preferences, response latency can enhance the reliability of measurements.

In Aaker, Bagozzi, Carman, and MacLachian's (May, 1980) study, findings showed that when response latencies, recorded during the paired comparison procedure are combined with the paired comparisons, the combination provides a measure of brand preference that is similar to that found for the constant sum measure used by itself. Thus, in many situations, such as telephone interviewing, where the constant sum measure is unwieldy but the recording of response latency is not, the paired comparison/response latency approach might be preferable.

Tyzoon T. Tyebjee (February, 1979) developed a model for scaling brand preference and the model which specifies the relationship between response latency and brand preference is based on two assumptions:

1. A consumer's preference structure for a set of brands.
2. The time needed for the consumer to choose between the two brands.

Tyebjee's experiment consisted of 48 college students and the study was represented as research on beer drinking habits of college youth. Nine brands of beer constituted the stimulus set. Of these brands were premium priced brands, medium priced regional brands, and low priced local brands. The task was a forced pairwise



choice from two brands of beer. Each of the 36 possible pairs of nine brands was presented in a random order. A subject was cycled through two sets of these 36 pairs. When a slide of two beers appeared on the projection screen, the subject indicated a choice by depressing one of two buttons on the teleterminal. The terminal was connected to a laboratory computer which recorded the choices and also measured the time needed (in milliseconds) for a subject to make each pairwise choice. At the end of the experiment the subject was told to pick one brand from each of the 36 possible pairs of brands as payment. This was taken as a measure of behavioral action tendency toward each of the brands. Brand preference scale values derived from the response latency measure were tested against this action tendency as an independent criterion of brand preference. In this particular experiment the response latency measure was suitable for scaling brand preference.

In October 1983, MacLachlan and Myers published an article called "Using Response Latency to Identify Commercials that Motivate". Most television commercials are designed to sell products so when testing commercials, testing motivation is very important. The major drawback however, is that the measures of motivation used are often not sensitive enough (there is no statistically significant difference between the different measuring versions) to discriminate among commercials. What is needed is a more sensitive measure of motivation.

Three popular measures of motivation are the following:

- a. **Purchase Intention Question:** If you were out shopping for (product category), which brand would you most likely buy?
- b. **Constant Sum:** Here are five envelopes labelled with brands of (product category), and here are 11 cards. Please distribute the cards among the brands based on how likely it is you would buy the brand. You can give a brand some of the cards, all of the cards, or none of the cards. (The score for each brand is the number of cards it receives).
- c. **Paired Comparison:** I'm going to show you pairs of (product category). For each pair, tell me which brand you would prefer to buy. (Pairs of all possible combinations are then shown. The score for each brand is the number of times it is chosen in preference to other brands.)

These three measures have excellent predictive validity, a more enriching method is using response latencies. Psychologists have long known that the speed with which an answer is given can be as informative as the answer itself (Johnson, 1939; Festinger, 1943). For example, if a person is asked whether they would prefer a Coke or a Pepsi, and they answer quickly "Coke", that indicates a strong strength of preference for Coke over Pepsi; on the other hand, if they were to answer slowly that would indicate a weak strength of preference. There is a substantial body of psychological literature that shows that the amount of time a respondent spends deliberating his answer to a question indicates his level of certainty. The more certain the respondent is of his answer, the faster he will reply. The judgement time involved is referred to as response latency (RL).

The psychologist John Frederick Dashiell (1937) suggested a method of analyzing latencies to paired comparison questions. He pointed out that objects can be ranked on a continuum, based on how well they are liked. Such a continuum ranges from excellent to poor, and he called the distances "affective value distances (AVD)". If two objects are close together on the scale (i.e., about equally well liked), and we ask subjects which they prefer, then their latency will be slow. If on the other hand, the objects are widely separated (one is much better than the other), then the subject would make his choice quickly.

MacLachlan and Myer's study consisted of randomly dividing 60 housewives into 2 groups whereby they were required to fill out purchase diaries weekly for 6 weeks. All subjects saw a television program concerning the intelligent use of consumer credit. Imbedded in this program were some commercials as follows: Group 1 saw commercials for Heinz catsup and Ivory soap; Group 2 saw commercials for Coca-Cola and Zest soap. Subjects answered a purchase intention question and a constant sum question. They then answered paired comparison questions. The computer recorded the decision and the elapsed time (response latency) for each choice. Five products were used in each of the three categories and all combinations of pairs were shown for each category.

It was proven that the group that saw the Coca-Cola commercial gave it greater lead over the competition than the control group. The Heinz catsup commercials were not as hoped because the Heinz commercial had been criticized in the trade press. Supposedly, the commercial portrayed the product as being "a pain to use" due to the slow pouring characteristic of Heinz. The research showed

that the group that did not see the Heinz commercial rated Heinz considerably ahead of the number two competitor, Del Monte. However, the group that saw the Heinz commercial rated Heinz and Del Monte almost the same. The AVD results for bath soaps showed that the group that saw the Ivory commercial gave it a greater lead over the competition than did the group seeing the Zest commercial. The group seeing the Zest commercial gave Zest a more favourable position than the group seeing the Ivory commercial.

Subjects were then asked whether they would prefer Del Monte or Heinz, Del Monte or Townhouse, Del Monte or Hunt's etc. and each choice was timed.

Social science researchers want to measure the conviction with which attitudes are held because the stronger the conviction, the more resistant the attitude is to change. In addition, the greater the conviction, the more the attitude is predictive of action tendency.

Researchers also wish to identify those respondents without strong convictions. Individuals without an attitude toward a subject frequently give a response other than "don't know".

One way of making decision makers assess the strength and validity of expressed opinions is to ask respondents to express the extent to which they are certain about each reported attitude toward a subject.

Response latency can measure certainty and product behaviour in a wide variety of cases. Johnson (1939) showed subjects pairs of rods and asked which rod was longer. The closer in length the rods were, the longer the judgement time. Festinger (1943) showed subjects pairs of angles drawn on paper and asked which

angle was more acute. The more similar the angles, the longer the judgment time. In an experiment involving the selection of appropriate airplanes for a war game, Hoge and Lanzetta (1968) found that the higher the level of uncertainty, the longer the judgment time. Dashiell (1937) showed subjects pairs of colours and asked which colour they preferred. The more strongly a subject preferred a colour, the faster it was chosen. Shipley, Norris, and Roberts (1946) have shown that RL correlated with certainty regardless of whether subjects were asked questions phrased in positive or negative terms. In stimulus response laboratory research, Ramond (1953) found that RL correlated inversely with strength of conditioning. Barker (1946) found that the more strongly a subject perceived one beverage as better than another, the faster the RL to choose the preferred beverage. MacLachlan (1976) has shown RL to be predictive of brand choices of frequently purchased consumer goods.

LaBarbera and MacLachlan (1979) wanted to determine whether RL, in the context of telephone interview situations, could provide a useful measure of respondent level of certainty. They obtained response latency for each answer by using an electronic stop-watch. They then asked respondents about how certain they were of the views they expressed. They hypothesized that respondents would state that they were most certain of those answers given with fast response times.

A curvilinear relationship has been found between RL and action tendency (MacLachlan 1976). But there is a linear relationship between the reciprocal of RL and action tendency. The raw time data themselves are usually not the best units for subsequent analysis. Most experimenters have analyzed RL data as their reciprocal. This reciprocal is generally referred to as the certainty value (CV); and the higher the

value, the greater the level of subjects' certainty. Many researchers have reported a near linear relationship between CV and action tendencies (Johnson, 1972; MacLachlan, 1976).

In LaBarbera's and MacLachlan telephone interview research 200 respondents were asked how likely it would be that they would get a swine flu shot. The long latencies of those saying "yes, they would get the shot", and hence the low CV for that group, suggested that the conviction was low and that the group actually making the effort to get the shot would be smaller than expected. In addition, the researchers asked the respondents who answered "no" to the question "If you read in tomorrow's newspaper that there was an outbreak of swine flu in Chicago, would you get the swine flu shot then?". It was found that the respondents who had given a slow "no" or had a low CV were the most influenceable. Thus, the CV is important to the decision maker because it indicates which groups could be easily persuaded to change positions.

The researchers also asked respondents to choose between pairs of TV shows and then to rate how strongly (on a scale of 1 to 10) they preferred the show they named. RL for each pair of programs was measured by using an electronic stopwatch counting the elapsed number of seconds. The RL is the elapsed time from the offset of the question to the onset of the subject's response. The voting and television program results showed that the CV can serve as an index of strength of preference when two alternatives are presented.

The swine flu shot data demonstrated that the CV indicates the resistance of an attitude to change. In short, the higher the CV, the more certain the subject feels

about his answer, and, depending on the context, the CV can serve as an indicator of strength of preference or level of commitment.

Another study by Burroughs and Feinberg used response time to determine the strength and nature of celebrity-product associations. In Experiment 1 the strength of the memory links between spokespersons and products was assessed using response time measures. In Experiment 2 the nature of the links between spokespersons and products was analyzed.

Response latency towards products may generally be considered a measure of approach behaviours to those products. If spokespersons are effective in reducing response latency, they will generally be effective in product promotion. On a theoretical level, a relationship between response latency and spokesperson effectiveness allows spokesperson effectiveness to be tied to a wider body of literature on memory processes. Most models of memory imply that the effectiveness of stimulus retrieval in memory is a result of the accessibility of relevant categories. When categories are primed in memory, they serve as a context within which stimulus items are judged (cf. Higgins, Rholes, and Jones, 1977). From this perspective the effectiveness of spokespersons depends on their ability to help code and retrieve product cues and characteristics.

In Experiment 1 subjects were presented with the names of products and nonproducts and asked to make speedy identifications of those names that were real products. These decisions were either primed by the name of a spokesperson associated with the product, misprimed by a spokesperson associated with another product, or unprimed by the word "blank". It was assumed that a correct

spokesperson would serve as a memory prime and speed identification responses for a product relative to unprimed responses, and that mispriming the identification response would lead to slower identification times relative to unprimed responses.

Twelve undergraduate students were presented with 24 product brand names and an additional 24 nonproduct words. Each of the stimulus words appeared 3 times during the experiment, requiring a total of 144 responses. Each was primed once with the proper celebrity spokesperson, misprimed once with an improper celebrity spokesperson randomly selected from among the 24 in the experiment, and unprimed once but signalled with the word "blank". The product names and nonproduct words were randomly ordered for presentation. One-third of these stimuli were correctly primed, one-third were misprimed, and one-third were unprimed in an initial presentation. Positioned directly in front of the subjects was a response board equipped with two buttons labelled product and non-product. The clock measuring reaction time began as the shutter of the projector opened and stopped when the subject pressed one of the buttons.

Experiment 2 examined semantic attributes of individuals identified as good spokespersons. Twenty-five male and female undergraduates participated by answering 16 seven-point bipolar scales as descriptors of the spokespersons. These scales were selected to tap frequency of exposure, overall familiarity, and semantic dimensions of evaluation, activity, and potency.

The two studies basically concluded that response latency for products primed by a spokesperson was faster than when primed by a no-name or name not associated with the products. Further, characteristics that increase the strength of memory



linkages between products and endorsers were found to be present in effective spokespersons.

Grass, Wallace, and Zuckerkandel, researched response latency in industrial advertising research. Respondents were asked if they felt that certain products were high quality or low quality. The respondents' answer was recorded in milliseconds along with the appropriate response.

It was found that the answers were highly polarized; those who perceived a product to be of high quality were certain of their position, while others were strongly convinced that it was a low quality product. Of those who were unaware of the product, theoretically, one would expect these respondents to have no opinion about the quality of the product of which they were completely unaware. The most likely source in this case was the manufacturer's name, which was always read with the brand name of each product. Where an opinion about product quality was expressed, it would appear that the respondent was willing to guess about the quality of the product as an extension of his/her opinion about the manufacturer.

Thus, respondents who say the product is "high quality" are in reality expressing a positive image of the company, while those who say "low quality" are expressing a negative image.

In this study the researchers concluded that the application of the response latency measure enriched the results of the telephone interview by providing some insights into the competitive product and manufacturer relationships that would not otherwise have emerged from the study.

## **CHAPTER 5**

### **REPETITION EFFECTS**

#### **PSYCHOLOGY**

Virtually all of the studies examining the effects of message repetition in psychology have used attitudes as the dependent variable. Caccioppo and Petty (1979, 1985) for example, examined and considered only the "cognitive and attitudinal effects of repeatedly presenting either the same or similar persuasive communications to individuals over a short time period". The implicit assumption of this approach is that in order to change behaviour, one must first change attitudes. There is no consideration given to whether the attitudinal effects are translated into behavioral effects nor the possibility that repetition might influence behaviour with little or no effect on attitudes.

Early theoretical research on the effects of exposure frequency concentrated on the relationship between mere exposure and liking (Zajonc, 1968). Though it was discovered that increased exposure to simple, unfamiliar stimuli increased liking in a variety of settings, exposure frequency often led to initial increases in liking, with subsequent decreases (see Saegert and Jellison, 1970, Smith and Dorfman, 1975, Harrison and Crandall, 1972). Numerous theoretical explanations for this inverted U-shaped relationship between exposure frequency and attitudes were proposed including competition, arousal theory, classical conditioning, differential stimulus complexity, and various 2-factor models (see Mitchell and Olson, 1977, or Caccioppo and Petty, 1979). Researchers have also focused on the mediating influences of cognitive elaboration, learning, and/or tedium.

Many studies reported that attitudes changed positively over some moderate range of message repetitions then declined following subsequent repetitions. To explain such findings, Caccioppo and Petty (1979), for example, hypothesized that the effects of message repetition on attitudes are "mediated by a 2-stage attitude modification process". They argued that message repetition provides individuals with the opportunity to "elaborate cognitively" on the message arguments, realize their cogency and favourable implications and thereby positively influence their attitudes. At high levels of exposure, however, tedium and/or reactance may motivate the individual to attack the message, counter argue and thereby negatively influence their attitudes. Caccioppo and Petty (1979) found that in 2 experiments message repetition led to decreasing then increasing counter-argumentation, increasing topic relevant thinking and finally increasing then decreasing agreement with the position being advocated.

In a recent review of repetition literature, Caccioppo and Petty (1985), provide further instances of the inverted U-shaped relationship between message repetition and attitudes. Again, they explain these results in terms of "cumulative increases in cognitive elaboration" followed by tedium effects. It is interesting to note however, that the inverted U-shaped relationship was particularly pronounced only when the persuasive communication was a complex message delivered via an audio presentation. In studies using simpler, more common communication nodes, the increases in attitudes were much less pronounced. Using mock television and mock print advertisements, Corlette (1984) and Schumann (1983) found for example, that attitudes changed very little over moderate ranges of repetition (1-4), but decreased dramatically at high exposure levels (5-8). These findings are particularly important

because these two studies used attitude objects and persuasive communications most relevant to marketing (consumer products, beer, and shavers, and used fictitious TV and print advertising).

Under certain circumstances the relationship between repetition and attitudes may not display an inverted U-shape. Berlyne (1970) proposed a non-monotonic inverted U-curve relationship between familiarity and liking. According to Berlyne, two separate and opposing psychological processes, positive habituation and tedium, operate simultaneously. Positive habituation is similar to a reduction in response competition: exposure results in a reduction in arousal due to uncertainty and conflict and thus increases liking. Tedium also increases with exposure and results in a less pleasurable feeling toward the stimulus. Berlyne suggests that the relative strength of each factor varies as a function of exposure to the stimulus, with the habituation process having the greater impact on affect initially, while tedium and disliking occur at higher exposure levels. Stimulus complexity and sequence heterogeneity slow the positive habituation process; thus tedium occurs at higher exposure levels for complex, varied stimuli and at a relatively low frequency for simple, non-varied stimuli.

When the persuasive communication is relatively simple, and can be comprehended in one exposure, a different hypothesis could be entertained. It is possible that individuals acquire all the relevant information about an object, and form evaluations on the first message exposure. Subsequent exposures (over some moderate range which is less than tedium inducing) then serve to simply activate the object and perhaps its evaluation in memory, thereby strengthening the object-

evaluation association. Message repetition, in this case, is not expected to change attitudes by merely increasing their accessibility from memory. Stang (1973 and 1975) found that continued repetition beyond that necessary for initial learning leads to boredom or satiation, and repeated exposure ultimately produces negative affect toward the stimulus.

The most comprehensive laboratory study of advertising repetition in the marketing literature is that of Sawyer (1971). He used a controlled laboratory setting, with real shoppers and existing products. He exposed subjects to varying repetition exposures of an advertisement and measured ad recall, brand evaluation, brand purchase intention, and brand purchase behaviour. Ad recall was positively affected by repetition. There was no significant effect of repetition on brand evaluation, while repetition did significantly affect brand purchase intention. Moreover, the effect of repetition on an unobtrusive coupon redemption measure of behaviour approached significance. The fact that awareness (recall) and behaviour (intentions, and coupon redemption) changed without the intervening attitude variable changing was inexplicable.

Given this evidence it is possible that advertising repetition does not change attitudes (i.e., does not change evaluations). To the extent that each advertising exposure activates, and thereby strengthens the object and evaluation nodes in memory, advertising repetition increases the accessibility of attitudes. In other words, advertising repetition can change attitude accessibility and thereby moderate the relationship between attitudes and behaviour.

## **ADVERTISING REPETITION**

It generally has been assumed that attitudes are the only mediator of message frequency on behaviour. The typical finding in this research is an inverted U-shaped relationship between repetition and attitudes. With reasonably complex ads, attitude valence initially increases, but "wear out" occurs with further repetition and attitude valence declines (Caccioppo and Petty, 1979, Calder and Sternthal, 1980). The commonly accepted explanation for these results is that with reasonably complex ads, it takes a number of repetitions for individuals to fully comprehend and process the message. Consequently, subjects have been found to generate positive thoughts about the message over low to moderate levels of exposure frequency, resulting in more favourable attitudes. At some point however, individuals become inattentive to the message and eventually have negative reactions to it, causing a downward trend in attitudes.

Within this paradigm, however, researchers have been unable to explain the fairly common finding that advertising frequency often positively influences awareness and behavioral intention measures while having little or no influence on evaluative measures of attitudes. Past research suggests that advertising repetition may affect at least two of the non-evaluative dimensions of attitudes. First, Fazio's models and the repeated expression manipulations suggest that repeated advertising exposures may influence attitude accessibility. To the extent that an individual is motivated to evaluate brand information and either form evaluations or activate and reconsider previously formed evaluations, any ad exposure should result in either the formation or strengthening of the association between the representation of the brand in

memory and its evaluation. In other words, repeated exposure to ads processed in evaluative terms should increase attitude accessibility.

Repeated exposure to an ad may also influence other non-evaluative dimensions of attitudes. Particularly, it may influence attitude confidence. One reason for increased confidence might be that repeated exposure allows individuals to process more information from the ad. Studies in decision making have found that self-confidence in judgement increases as amount of information increases. Another reason is that the simple act of repeatedly making an attitudinal decision may increase self confidence in the decision. Einhorn and Hogarth (1978) provide evidence that confidence in judgements increases as a function of the number of times the decision is made. And finally, repeated exposure may provide individuals more opportunities for brand relevant cognitive elaboration. Studies have shown that attitudes based on more elaboration are more predictive of subsequent behavioral intentions.

Berger and Mitchell, (1989) tested to see whether advertising exposure could increase attitude behaviour consistency. They tried to examine the influence of advertising repetition on several non-evaluative dimensions of attitudes and consequent attitude behaviour relationship. The results indicated that under conditions of high motivational involvement, repeated exposures to ads can yield attitudes that are just as accessible from memory and held with as much confidence as attitudes formed on the basis of direct experiences. Furthermore, the results showed that attitudes highly accessible from memory and held with high levels of confidence were highly predictive of subsequent behaviour.

## **THE ROLE OF PROCESSING STYLE**

It has long been recognized that a fundamental problem for research in consumer behaviour is the fact that consumers differ in their motivation to attend to and process messages. Some exposures may be processed carefully many times; others may be processed carefully only once; still others may remain largely ignored forever.

Different processing styles entail different levels of cognitive elaboration, and the role of cognitive elaboration clearly distinguishes between uncertainty reduction and non-cognitive mediation. Cognitive elaboration is the measure of the number and strength of associations with which a stimuli is represented in memory. Uncertainty reduction occurs as a result of increasing the elaboration of encoding. In this context, to learn about a stimulus is to make or strengthen an association between that stimulus and some other thing (an attribute, a connotation, a context, etc.). The more associations one makes with a stimulus, the more certainly it becomes fixed in one's knowledge structure. Thus, according to the uncertainty reduction model, cognitive elaboration reduces uncertainty, resulting in positive affect. Non-cognitive mediation requires no cognitive elaboration. Moreover, to the extent that non-cognitive mediation alone accounts for it, the level of affective response should be unrelated to the level of cognitive elaboration.

The non-cognitive mediation model suggests that, to the extent that affective response is separate and independent, processing style is irrelevant. In contrast, uncertainty reduction explains affective response as a direct result of the extent of cognitive processing - the more that is learned about a stimulus, the greater the



affective response due to removal of aversive tension. Thus, familiar brands that a consumer has already experienced are more liked because the aversive tension brought about from the uncertainty and risk of using a new product is decreased. Although developed to account for effects of repetition, this reasoning applies equally well to level of processing for a single exposure. If processing style results in the formation of more (fewer) associations, then uncertainty should be reduced more (less).

Carol Obermiller (1985) conducted a study investigating the effects of exposure on affect and learning under various conditions of processing style. Subjects were exposed to melodies while they performed various tasks. Afterwards subjects listened to the melodies again and rated them on affective scales and indicated recognition. The findings of this study were consistent with two principles: (1) affective response is a function of the qualitative nature of cognitive elaboration, and (2) given a processing style, reduced uncertainty leads to positive affect. Repeated exposures may merely reduce uncertainty or they may provide opportunities for making more positive associations: both processes would lead to a positive affect. Finally, the results suggested an additional complexity in the relationship between learning and liking. In particular they suggest that the role of confidence in the recognition measure may be unappreciated in research on the effects of exposure on evaluation. Furthermore, the relationships between confidence and a sense of familiarity and evaluation that were found in this study were consistent with Joseph Nuttin's hypothesis of affective transfer.

Nuttin found that the more familiar the stimulus, the more likely subjects were

to recall their experience with it as successful. A series of experiments demonstrated that recall was associated with success more than with failure. And two studies that measured confidence of recall indicated that greater certainty was associated with greater perceived favorability. Thus, one may also assume that since this sense of familiarity is directly correlated with higher share brands, greater affective response will also be displayed towards these products and these feelings will be held with greater certainty.

### **EFFECTS OF PROCESSING STYLE AND REPETITION ON AFFECTIVE RESPONSE**

Most of us have experienced the changing evaluations that result from repeated exposures. For example, a poem that struck one as senseless after one reading became rich in meaning and was much appreciated after several thoughtful readings. A difficult choice among numerous untried brands was simplified by choosing the one with the familiar brand name. In each of these examples, something that was initially unfamiliar and disliked came to be liked or preferred after repeated exposures. Recent findings in psychology support the argument that repeated exposures lead to positive affective response even when the exposures are characterized by no discernable cognitive processing of the stimuli.

The role of repetition in consumer information processing can be examined in terms of its effects on learning or on affect formation. The effects of repetition on learning have been reasonably well established. When consumers are attentive, repetition is a powerful aid to learning (Sawyer, 1974). Repeated exposures may also

facilitate some learning under low involvement conditions (Krugman, 1965).

Since liking is often presumed to follow learning, an obvious role for repetition is to offer multiple opportunities for learning. As a result, repetition makes it easier for advertising to work along the lines of traditional information processing models by making the message continually available, thus facilitating affect formation by active audience processes. Some researchers have suggested that repeated exposure produces more subtle effects. These subtle effects produced by repeated exposures may actually be more important, since so much of consumer exposure is characterized by limited processing. Such effects are often characterized as exposure effects or mere exposure effects.

### **MERE EXPOSURE THEORIES**

One must fill in the blank between exposure and affective response. The uncertainty reduction model suggests that affect is mediated by learning qua learning. That is, apart from the specific effects of individual associations' affective components, there is an affective response determined by the quantitative level of learning. Explanations suggest that evaluation changes as an individual learns more about a stimulus because the amount of learning directly affects uncertainty. Uncertainty is associated with aversive tension, and as uncertainty is reduced, evaluation is enhanced (to a point, however - too little uncertainty is variously interpreted as boredom, tedium, or satiation and eventually leads to evaluation decrement).

## **THE ROLE OF MESSAGE REPETITION**

Miller (1976) found that moderate exposure led to significantly more positive attitudes toward the recommendation than held previously and than did high exposure. He speculated that psychological reactance was aroused in the high exposure condition by presenting the same appeal repeatedly within a small segment of time and area and that this accounted for the absence of immediate attitude change in this condition.

Petty and Cacioppo (1979) analyzed the effects of pre-exposure positions and message repetition on agreement. Their analysis indicated that recall increased with message repetition, suggesting that the recipients extracted more information from the message with each additional exposure even though the simple ability to recall these arguments made them no more or less likely to agree with the recommendation.

Cacioppo and Petty (1979) conducted an experiment and found that moderate repetition of a persuasive communication proved most effective, regardless of the position advocated, suggesting that repetition not only provided more opportunities for an individual to process message arguments but repetition also aroused feelings of tedium or psychological reactance that ultimately proved detrimental to persuasion. Recall of the message arguments increased across repetition levels, suggesting that subjects were continuing to extract some information from the communication across levels of repetition.

Another component of message repetition concerns the biased nature of the recipient's information processing activity. Moderate repetitions of a persuasive message facilitated the relatively objective consideration of the merits of a

recommendation, but that as tedium and reactance were aroused, the information processing turned aversive and increasingly directed toward the context of the appeal (eg. thoughts were more likely to be directed toward the setting or the advertisement). One reaction available to recipients when they are exposed excessively to a persuasive communication is to take steps to avoid the appeal or to remove themselves from the persuasion setting or to generate arguments against the merits of the recommendation (eg. by turning the page in a magazine or selecting another station on the radio or television). Change in attitude toward the recommendation would be unlikely in these instances.

If for instance, the message is sufficiently complex that recipients can not complete their scrutiny of the implications and merits of the arguments in a single exposure, then moderate number of re-exposures to the message should enhance both the amount of information extracted from the message and their realization of the personal benefits or costs of the recommendation being accepted. Therefore, extracting more information should lead to higher attitude accessibility and an increased attitude-behaviour relationship. However, under low involvement, less exposure is needed in order to accept a message. If a person accepts the message, he may act on this knowledge (behaviour) and then re-enforce his attitude.

Corlette (1984) found that the exposure of subjects to the target advertisement during every commercial break (i.e., the 7-exposure condition) actually had a detrimental effect on subjects' recall of the material in the advertisement: recall increased with the repetition until the 7-exposure condition, which produced poorer recall than did 5 exposures and approximately the same level of recall as did 3

exposures. This suggests that subjects turned their attention away from the ad when it appeared predictably and often. Additionally, if messages were varied somewhat, it was reasonable to propose that tedium or boredom could be forestalled. However, it was found that it was only under low involvement conditions that forestalling took place. Under low involvement, subjects showed a tedium effect only if the ads were exactly the same in content, but not if they were varied.

Under high involvement, people were motivated to process the ad at relatively low repetition levels so that by high repetition levels, they tended to show a tedium effect whether the ads were the same or different.

### **REPETITION AND COGNITIVE RESPONSE**

McCullough and Ostrom (1974) examined the effects of repeated exposure by having subjects view 5 similar ads that used the same basic appeal, but differed in the order and phrasing of the message arguments. Cognitive responses were measured immediately after each exposure to the advertisements. They found that repetition resulted in significant positive effects on cognitive response activity, as subjects listed more positive thoughts and fewer negative thoughts with repeated exposure.

Caccioppo and Petty (1979) examined the effects of repeating messages that were neither consistent with nor contrary to recipients' initial attitude on cognitive response activity. They found that agreement with the message position increased and then decreased as exposure frequency increased. The cognitive response pattern followed a similar curvilinear relationship as favourable thoughts showed an increase followed by a decrease, while counter arguments showed a significant decrease followed by an increase.

Caccioppo and Petty interpreted these results in terms of a two stage attitude modification process. According to this model, repetition of the message provides more opportunity for cognitive elaboration upon the specific arguments and realization of their favourable implications. At high exposure levels, however, tedium and/or reactance lead to an attack against the message by the receiver.

Gorn and Goldberg (1980) examined the effects of repeated commercial exposure on eight to ten year old boys by varying the number of commercials seen in the context of a half hour program. Subjects viewed the commercials either one, three or five times. However, some of the multiple exposure condition subjects viewed the same commercial repeatedly, while others saw a different commercial for the new brand each time. They found that moderate exposure (three repetitions) resulted in the highest level of brand preference, provided that the same commercial was not seen each time.

Caccioppo and Petty (1980) tested the viability of the two-stage cognitive response model in two other repetition experiments. They found that strong argument based messages became more persuasive with repetition; weak argument messages became less persuasive with repetition; and novel messages became more, then less persuasive with repeated exposure.

Calder and Sternthal (1980) measured cognitive responses after commercials for two products; one product was unfamiliar to the participants and one was well known. They found that increased frequency of exposure led primarily to more total thoughts for the unfamiliar product and to an increase in negative thoughts for the well known product.

## **CHAPTER 6**

### **BRAND FAMILIARITY AND ADVERTISING EFFECTS ON THE EVOKED SET AND BRAND PREFERENCE**

This thesis concerns itself with the attitudinal effects of advertising repetitions and brand shares. However, due to the fact that brand share is directly correlated to familiarity and awareness, this chapter is allocated to brand familiarity, awareness, and loyalty.

It is a well known fact that brand awareness, or familiarity, and brand choice are highly correlated (Axelrod, 1968; Haley and Case, 1979).

Brand familiarity is a unidimensional construct that is directly related to the amount of time that has been spent processing information about the brand, regardless of the type or content of the processing that was involved.

Evidence suggests that while consumers may have knowledge of a large number of brands in a product class, they may consider only a few of these for purchase on any particular occasion. The composition of such an evoked set has important influences on subsequent probabilities of brand choice. First, a brand that is not considered cannot be chosen.

Brands can be included in an evoked set either by being recognized in the environment (in the case of a stimulus-based choice) or by being recalled from memory (in the case of memory-based choice).

In terms of the exposure effect, Zajonc (1968) has demonstrated that as exposure to a brand increases affective reactions to the brand become more



favourable. The key point for marketers is that subjective familiarity does mediate the exposure effect (Obermiller, 1985; Stang, 1975; Moreland and Zajonc, 1977) and that brand directed attention without elaboration will generate this subjective familiarity (Obermiller, 1985; Greenwald and Leavitt, 1984).

The cause of the exposure effect is likely to be closely linked with the concept of stimulus habituation (Harrison, 1977; Zajonc, 1968; 1980; Berlyne, 1970). Essentially, novel stimuli generate high levels of arousal that trigger an avoidance response. Repeated exposure decreases arousal, facilitating stimulus habituation, affect formation, and an approach tendency. Stimuli which have been encountered many times without ill effects are safer and hence, more approachable, than new, untested stimuli. In a marketing context, this approach may be perceived by consumers as perceived risk or what Obermiller (1985) refers to as uncertainty reduction, a component of perceived risk.

Research by Hasher and Zacks (1984) suggests another process by which brand familiarity may mediate brand preference. It suggests that effects of automatic processing can provide the input to evaluate inferences consumers draw about brands. This research strongly suggests that an automatic frequency counting mechanism exists in memory. Basically, the mechanism effortlessly provides relative frequency information which can be the basis for consumer inference making (i.e., "I've seen this more than other brands. It must sell well. It must be good. I'll buy it...").

Since brand attitude formation does not require explicit interbrand comparisons, the absolute level of affect generated by brand familiarity will directly influence the level of brand liking. Except in the cases of habitual purchase

behaviour, however, brand choice explicitly requires interbrand comparisons. Thus, the relative level of brand familiarity among brand alternatives is a critical independent variable. The extent of the comparison is dependent on factors such as prior product class knowledge and decision involvement.

In conclusion, brand familiarity is likely to: (1) enhance perceptual identification of a brand, (2) increase the probability of inclusion in the evoked set, (3) generate positive affect toward the brand, and (4) motivate purchase behaviour.

### **ADVERTISING EXPOSURE, LOYALTY, AND BRAND PURCHASE**

High share brands tend to have a large core of loyal buyers, therefore, the topic of loyalty also needs to be discussed.

Tellis (1988), conducted an experiment of scanner purchases (with TV exposures) of a mature product category and found that advertising re-enforced preference for current, higher share brands rather than stimulate brand switching for newer, lower share brands. The most interesting conclusion from his analysis was that loyalty, brand share, and product familiarity were significant moderators of the effects of ad exposure, with buyers responding more strongly to brands to which they were more loyal. He also found that only the main effect of advertising had a moderate effect on brand choice and the interactive effect with loyalty had an effect on volume purchased. In other words, advertising had a small effect in winning new buyers but a relatively stronger effect in reinforcing intensity of preference. The effect of brand loyalty and familiarity dominates that of other variables.

Causal reflection suggests that there may be an "advertising prone" segment just

as there is a coupon prone one. Behavioral theory and laboratory studies indicate that response to advertising exposure is nonlinear and stronger among subjects familiar with the brand or message (Sawyer, 1981; Simon and Arndt, 1980).

### **Effects of Message Repetition and Brand Loyalty**

When exposed repeatedly to a favourable ad, subjects are likely to respond positively at first because they have more opportunity for attention, retention and cognitive elaboration. The first one or two exposures may merely draw attention to the brand name, whereas subsequent exposures ensures that the message gets across and that subjects have time to evaluate it. Further repetition has no beneficial effect, because subjects are no longer stimulated to new elaboration and tire of hearing the same message.

This theory suggests that the subjects' prior disposition is an important moderator of ad response. Thus, one may propose that since consumers have some prior knowledge of high share brands, this knowledge may act as a moderator of affective ad response. If the subject is a loyal user of the brand or is otherwise familiar with it, the positive response to exposure is likely to be higher and the optimum number of exposures lower. The mediating role of brand loyalty or familiarity may be due to several factors. First, exposure, attention, comprehension, and retention are selective processes, operating in favour of relevant behaviour, such as brands currently used by the individuals (Assael 1983, Engel and Blackwell, 1982). Second, cognitive consistency theories suggest that individuals may further bias these processes to support continued use of preferred brands (Calder, 1981). Third,

cognitive elaboration is likely to be initially richer for brands with which subjects have more extensive experience in different contexts (Caccioppo and Petty, 1985). For these reasons messages about brands with which subjects are more familiar or loyal are likely to lead to more positive affect and behaviour. Earlier reviews of literature (Belch 1982, Caccioppo and Petty, 1985, Naples, 1979, Sawyer, 1981, Simon and Arndt, 1980, Stephens and Warren, 1984) cite 38 primary studies on consumer response to the repetitive exposure of ads or messages. The findings strongly support the hypothesis that repetition leads to a more positive response for more familiar or frequently used brands.

Belch's (1981) experiment on comparative advertising showed that repetition of television ads led to less favourable attitudes for a new, low-share brand as subjects' loyalty for the established brand increased. In a study of 100 commercials Stewart and Furse (1986) found that brand differentiating messages were more effective for more extensively used or higher share brands. Calder and Sternthal's (1980) study on television commercial wearout indicated that the repetition of ads led subjects to a more positive evaluation for familiar brands but to a more negative evaluation for unfamiliar brands. In another experiment, Craig, Sternthal, and Leavitt (1976) found that subjects also could recall repetitive information better for familiar, higher share brands. In a field experiment, Politz (1960) found that repetitive magazine ads led to about 5 times more brand evoking for established brands than for newer or less established ones. Ray and Sawyer's (1971) shopping experiment indicated that recall of repetitive advertisements was generally higher for well known brands than for lesser known brands.

In summary, all these studies strongly suggest that brand familiarity enhances the effect of repetitive ad exposure. Therefore, one can conclude that advertising alone is not the strongest determinant of purchase behaviour. Without question, familiarity and loyalty are probably the strongest determinants.

### **The Effects of Advertising on High and Low Loyalty Consumer Segments**

Raj (1982), examined different advertising effects on purchase behaviour of consumers with varying brand loyalty. He found that in a frequently purchased product class, consumers with high loyalty increased brand and product purchase when advertising for that brand increased. Little switching occurred from competitive brands into the advertised brand. At low loyalties, there was little impact. Effects of increased advertising carried over for a few months after advertising was lowered back to normal levels.

Advertising may persuade those currently not loyal to a brand to devote a greater fraction of their purchase to it. On the other hand, currently loyal buyers may be protected from drifting into competing brands: they may also be persuaded to increase their purchase of the advertised brand. It is frequently believed that the major effect of advertising is to persuade buyers of competitive brands to switch to the advertised brand. The defensive role of advertising in maintaining current loyal buyers and in preventing their erosion often goes unrecognized in research.

In previous research, advertising effectiveness has been studied from 3 viewpoints : (1) studies with purchase measures as the dependent variable, using either aggregate level sales data (Bass and Clarke, 1972; Clarke, 1976; Haley, 1978;

Naples, 1979; Palda, 1964; Parsons and Schultz, 1976; and Simon, 1971) or individual level data (McDonald, 1970; McGuire, 1977; Winer, 1978); (2) cognitive studies dealing with the effects of advertising repetition on attitude, recall, and purchase intention (eg. Mitchell and Olson, 1977, Ray and Sawyer, 1971, Zieske and Henry, 1980); and (3) non-empirical research with a primarily conceptual or managerial emphasis about the different roles of advertising (Assael and Lipstein, 1978; Moran, 1976; Sheth, 1974).

Previous studies in advertising point out the need to study the effects of repetition in advertising with different levels of consumer expertise. At a more qualitative level, Assael and Lipstein (1978) argued that it is essential to examine a market by loyalty segments and to determine the segments' responses to marketing variables such as advertising, in order to better allocate resources. Moran (1976), Ehrenberg (1974), and Sheth (1974) theorize about the importance of the defensive role of advertising in retaining current customers of higher share brands.

Examining brand loyalty, Massy and Frank (1965, 1967) have investigated the differential sensitivity of loyal and nonloyal consumers to price and newspaper retail advertising. In a general study on segmentation, using diary data for purchase and independent advertising expenditure information, McCann (1974) found some difference between loyal and non-loyal consumers in terms of price sensitivity, but no difference in their response to advertising. Massy and Robinson (1978) showed that loyalty is a useful segmentation variable in consumers' price sensitivity. Wind (1970) found loyalty segmentation useful for discovering that a particular brand of beer has a loyalty group that seeks self-reward through drinking. This has implications for developing suitable ad campaigns aimed at such consumers.

Basically, one may propose that in attitudinal terms, loyal consumers might have to be reinforced in their attitudes in order to retain their franchise whereas non-loyal consumers might have to be induced into changing their attitudes. Inducing one to change attitudes comes about better via couponing or sales prices. Repetition in advertising works better for people who are already familiar with the product and need reassurance that they have chosen the right one.

Raj's results supported the hypothesis that increased advertising does have different effects on high and low loyalty consumers. Therefore, increased advertising may also have different effects on high and low share brands.

In the high loyalty segment, where increased advertising did have an effect, it was found that the effect also continued beyond the duration of the test period. This was consistent with Haley's (1978) finding of carry-over effects. The time period over which these effects continued is approximately three to six months.

Multi-level loyalty analysis shows that the greatest effect of the advertising is in the loyalty groups with market shares of 0.5 and above; no effect is seen in groups below the 0.3 level. Advertising effects increase nonlinearly with increased consumer loyalty and should also increase with increased brand share.

Since advertising effectiveness can differ by consumer loyalty, a brand with a relatively small core of loyal buyers (low brand share) may not find it profitable to imitate the advertising strategy of another brand with a larger franchise. It has usually been assumed that the major effect of advertising is to switch consumers from competitive brands, but Raj's study showed that product purchase increased without a corresponding decrease to competing brands.

## **THE EFFECTS OF KNOWLEDGE, MOTIVATION, AND TYPE OF MESSAGE ON AD PROCESSING AND PRODUCT JUDGEMENTS**

Maheswran and Sternthal (1990), examined the effects of prior knowledge, motivation, and the type of message on ad processing and on product judgements. The data suggested that with motivation to process message information in detail and with increased prior brand knowledge, subjects were better able to process the message. However, experts and novices differed in the types of information that prompted detailed message processing. Experts are more likely to process a message in detail when given only attribute information, while novices are more likely to do so when given benefit (or benefit and attribute) information. Experts and novices also differed in how they processed messages; experts' detailed message processing was evaluative, while novices' was more literal.

### **Product Familiarity and Learning New Information**

Johnson and Russo (1984) asked the question "Does product familiarity improve shopper's ability to learn new product information?". They examined an earlier study which indicated that greater familiarity increased learning during the new purchase decision. Their analysis confirmed that effect. Familiarity facilitated learning when consumers rated each alternative, but when consumers were instructed to choose one alternative, an inverted "U" relationship between familiarity and learning resulted. Their analysis also showed that consumers familiar with the product category demonstrate stronger brand organization for the new information.

During the last decade it has become increasingly clear that a decision maker's



current knowledge of a topic affects the processing of new, topic related information.

Similarly, the impact of knowledge of a problem domain-or expertise- has been explored in many cognitive and social domains (see Chi, Glaser, and Rees, 1981 for a review of the former, and Ostrom, Pryor, and Simpson 1981). Familiarity has been the focus of recent empirical work in consumer research that examines information acquisition, reactions to advertising, and the choice of decision rules by consumers.

In a previous paper, Johnson and Russo (1981), examined two plausible conflicting hypotheses describing the relationship between learning and information acquisition. The first they termed "enrichment" hypothesis, suggesting that existing knowledge facilitates the learning of new information. A classic example is provided by the chess research of Chase and Simon (1973). In their study, both chess masters and novices viewed actual chess positions for five seconds. The chess master's ability to recall these positions was superior to the novice's recall. Thus prior knowledge of the domain facilitated learning - a "rich get richer" concept.

Their second hypothesis suggested that prior knowledge had an inverted "U" effect. Here in contrast with the enrichment hypothesis, highly familiar consumers may search less than those who are moderately familiar. Although both studies described external information search, this inverted "U" hypothesis can be extended to describe the amount of knowledge remembered after search, predicting a curvilinear relationship between existing product knowledge and the amount of new information learned about a product class.

Familiarity with a product class could have several different results, each of which might affect consumer's information processing skills in a different way. Familiarity

gives experienced consumers several advantages over consumers new to a product class. The first and most obvious is superior knowledge of existing alternatives. Highly familiar consumers - say those with existing knowledge of automobiles - will be more likely to know specific facts about existing alternatives, such as the gas mileage of a Volkswagen Rabbit. As suggested by Bettman and Park (1980a), prior knowledge, as is usually the case for high share brands, is expected to decrease search for highly familiar consumers when they are considering existing alternatives.

A second distinct advantage of familiarity concerns search of new alternatives: more familiar consumers, like the chess masters in Chase and Simon's studies may develop knowledge about the plausible relationship among elements of a product class. Consumers who are familiar with autos, for example, may come to expect certain relationships between engine size, gas mileage, interior room, and acceleration. This knowledge allows familiar consumers to encode information about new alternatives more efficiently and, as suggested by the enrichment hypothesis, causes an increase in learning.

A third advantage of familiarity concerns the processing of both novel and existing products. In many domains, a key facet of expertise is the ability to select relevant information while ignoring information relevant to the task at hand. More familiar consumers may use their knowledge of the product class to limit their attention to information which is important to the choice. At the same time, their superior encoding skills may be offset by their superior ability to separate relevant from irrelevant information: when the external environment contains irrelevant information, experts may search-and therefore remember-less of the externally available

information. To summarize, familiar consumers possess three skills:

1. superior knowledge of existing products, which should decrease search of extant alternatives.
2. superior ability to encode new information, which may increase search and learning for new alternatives.
3. superior ability to pay attention to relevant information and ignore irrelevant information: when faced with information that is irrelevant or redundant, such consumers may use their knowledge of the product class to ignore unimportant information, performing a more selective search of available information.

In judgement tasks the increased familiarity of high share brands leads to the superior encoding ability of consumers and increases their brand recall. Higher recall then leads to greater attitude accessibility and a higher a-b relationship. Prior knowledge enhances a consumer's ability to encode and remember new information. The more information a consumer has, the better his/her attitude will be towards the product and thus the higher the a-b relationship. In addition to this increased encoding ability, more familiar consumers develop more brand organization for new knowledge and this allows for more storage of brand information.

Johnson and Russo's results suggested that experienced consumers used their knowledge of the product class to limit their search. Also, Edell and Mitchell showed that highly familiar consumers reported more cognitive responses when presented with technical advertising, and Anderson and Jolson (1980) demonstrated that the technical ads created the greatest increase in purchase intentions for purchasers who have considerable experience with the product, while a non-technical ad was more effective

for those with no experience.

In terms of this thesis, one may propose that since strong attitudes have a greater impact on cognition and behaviour than do weak ones, the increased familiarity of one consumer would form stronger attitudes of an object than someone who wasn't as familiar with the product or product class. Familiarity not only causes stronger attitudes to form but allows for certainty of attrition. Familiar subjects will obviously be more certain in their attitudinal judgments, causing for a decreased latency in attitude accessibility, thereby moderating the a-b relationship. In other words, in order for marketers to sell their product, they must increase their constituents' knowledge about their products to such an extent that they become confident in their purchase intentions.

### **THE EFFECT OF COMPREHENSION ON ATTITUDES, MEMORY, AND PRODUCT CHOICE**

Mick (1992) claimed that given a consumer who faces a brand decision in a product class in which he/she is sufficiently involved, it could be equally proposed that the more familiar a subject is with the product, the more deeply a relevant ad will be comprehended, the more credible an ad will be perceived, and thus, the more it will be liked. Furthermore, one may propose that compared to surface comprehension levels, deep comprehension levels arrived at by repetition, motivation, and prior brand knowledge have stronger relations to post-exposure brand attitudes and attitude accessibility.

Mick's study (1992) proved that deep comprehension levels brought about by

prior brand familiarity were positively related to both ad credibility and ad attitude when the valences of those meanings were taken into consideration. Thus subjects who produced more deep level positive meanings judged the ad more positively, whereas subjects who produced more overall surface level meanings judged the ad more harshly. Furthermore, Alba and Hutchinson (1987) conceptualized familiarity as an important component of consumer knowledge, and they defined it as the number of product related experiences that the consumer had accumulated. They proposed that as familiarity increases, consumers' ability to elaborate on information also increases. Therefore, consumers' attitudes are more accessible, they hold these attitudes with more certainty and clarity, and they are more likely to purchase products for which they hold these accessible attitudes.

Furthermore, research reported by Chi, Feltovich, and Glaser, (1981) suggests that experts are likely to elaborate upon the message information by evaluating it in relation to their prior knowledge, whereas novices are likely to represent message information more or less literally in memory.

### **Consumer Knowledge: Effects Mediating Consumer Judgments**

Sujan (1985), claimed that consumers evaluate each piece of information separately, on an attribute by attribute or piecemeal basis (Anderson, 1974). He also claimed that alternative to the piecemeal approach is the categorization approach (Mervis and Rosche, 1981; Rosche, 1975, Rosche and Mervis, 1975). Its basic premise is that people naturally divide the world of objects around them into categories, enabling an efficient understanding and processing of the environment. According to

the categorization approach, if a new stimulus can be categorized as an example of a "previously defined" category, then the affect associated with the category can be quickly retrieved and applied to the stimulus (Cohen, 1982; Fiske, 1982). Familiarity causes affective responses in people because people tend to like and feel more comfortable with the familiar. This process of retrieving evaluations of products in relation to more familiar products is termed "schema-driven affect" because one's prior experiences with the category or the category "schema" serve as a guide to evaluations (Fiske, 1982). Therefore, because consumers have had more experience with high share brands, either through increased advertising exposures, increased usage etc., they tend to use high share brands as a guide to evaluate newer, lower share brands. If a lesser known brand does not meet the same requirements of high share brands, the affective reactions towards these newer products will not be as strong.

Over time consumers are likely to develop a set of expectations about a product category; these expectations will be organized around the most typical category members, which are generally established, older and more popular brands. Categories can best be represented either by the typical category "exemplars" or by the familiar prototypes.

Recognition of familiar products in standard categories has been shown to be useful in a variety of domains. In the classical chess studies, it has been demonstrated that the master's "intuition" for the game came from his/her rapid recognition of standard patterns of chess positions (Chase and Simon, 1973). In the area of person perception, Fiske (1982) has extended the notion of categories to include affective

reactions. According to Fiske, affective reactions towards an object occur through a process of matching up that object to an object category. If the match is good and is consistent with the person's familiar product/category, the affect stored with the category is immediately triggered, and a strong spontaneous affective reaction toward the object is felt. In category based affect an already formed global, affective reaction is retrieved from memory and applied to the instance on hand.

Expertise seems to be linked to the knowledge of categories. The basis of expertise appears to be the ability to solve problems through the rapid recognition of standard categories of patterns that otherwise would need to be examined more slowly and analytically.

Sujan found that expert consumers are better able to link match-mismatch to products or product categories in memory and form evaluations from there. Evaluations tend to be more favourable for expert consumers who are familiar with a product/product category than for novices.

Expertise is likely to have an independent effect on evaluation process. Cognitive response studies have found that certain types of cognitive responses are accessible only to subjects who have a well developed knowledge base (Edell and Mitchell, 1978, Wright 1975, Wright and Rip, 1980). These studies indicate that attribute oriented thoughts may be more difficult for less knowledgeable consumers. Given the extended knowledge structures upon which experts can draw, it also seems likely that compared to novice consumers, knowledgeable consumers would produce more total responses to communication (Edell and Mitchell, 1978). Since experts may have stronger associations between concepts in memory (eg. Anderson, 1982), it is

likely that they can generate more total thoughts and more attribute oriented thoughts compared to novices without necessarily spending more time. The results of Suján's study provided substantial evidence that evaluation processes are contingent upon consumers' prior knowledge and the match of information to this knowledge base. When information matches category based knowledge, knowledgeable consumers rapidly reach final impression and evaluations and generate more thoughts related to the product category and fewer thoughts related to the product's attributes. When information is discrepant from category knowledge, knowledgeable consumers engage in more analytical processing and take longer to form an impression of the product. Suján's study also showed that when product information was discrepant from category knowledge, expert consumers still attempted to categorize the product to form an impression of it. The subtyping of discrepant stimuli is evidence that the processing of new information draws heavily upon consumers' prior knowledge about the category.

The data for novices indicated that they can recognize when information is consistent with or discrepant from their expectations about the category, but that they differ from experts in their use of category knowledge in processing product information. Novice consumers used category-based processing more than experts - both when information was consistent with and discrepant from category expectations. Novices base evaluations on category based knowledge rather than on attribute information to evaluate products. Thus, novices have global affect associated with general aspects of products-for example, with product category labels rather than with detailed product descriptions.



## **MEMORY BASED INFERENCES**

Dick, Chakravarti, and Biehal (1990), explored consumers' inference strategies in a mixed choice task involving memory, external information, and missing information on attribute values for some brands.

The authors argued that familiar consumers not only knew more about their products but when it came down to purchase intentions, even when some ad information was missing, consumers made inferences about the missing information. This natural inferring effort increases with greater accessibility of needed inputs and with greater relevance of the missing information to task needs.

Feldman and Lynch (1988) showed that accessibility of relevant inputs in memory influences consumer judgment and choice. These authors postulated that information accessibility also moderates missing brand attribute value inferences. If a brand's prior overall evaluation is highly accessible relative to its underlying attribute values, a missing brand attribute value may be inferred to be consistent with this retrieved evaluation. This evaluation consistency inference reflects cognitive economies that stem from the accessibility of the overall evaluation.

Familiarity of consumers allows them to have more accessible attitudes. With low accessibility, brand attribute information in memory can not be easily retrieved. Hence, in these cases probabilistic consistency inferences are less likely.

Dick, Chakravarti, and Biehal (1990), found that compared to consumers with less accessible brand attribute information in memory, those with more accessible information develop stronger perceived correlation between known attributes available externally and new ones for which some information is missing and needs to be

inferred. Furthermore, this study showed that consumers with greater memory accessibility of brand attribute information infer missing attribute values consistent with a known inter-attribute correlation (probabilistic consistency), as opposed to being consistent with an accessible prior overall evaluation (evaluative consistency). Consumers with lesser accessibility of information use the evaluative consistency process. Furthermore, consumers devote more effort to natural (unprompted) inferences when memory accessibility of other brand information is high versus when it is low.

### **Memory and Evaluation Effects in Competitive Advertising Environments**

An interesting study concerning memory and evaluation effects was conducted by Kevin Lane Keller (1991). The primary purpose of this study was to demonstrate that competitive advertising can influence evaluations of a target brand. Since this thesis involves using both target ads as well as competitive ads of the target brands, Keller's study is worth noting.

Consumers typically are exposed to advertising for more than one brand in a product category. Because many brands within a product category try to reach similar target markets, consumers may even be exposed to these ads in the same media vehicles. Keller (1987) and Burke and Srull (1988) adopted an information-processing perspective to study competitive advertising. They showed experimentally that increases in the amount of competitive advertising produced interference effects and significantly reduced recall of brand claims, given brand name and product category cues. Interference effects in memory occur when the accessibility of

communication effects is reduced by the presence of some other information in memory (Postman and Underwood, 1973). The presence of other information in memory may cause target information to be either inaccessible or confused with other information.

Keller also showed that the decrement in recall of brand claims could be partially offset by the presence of advertising retrieval cues (executorial information from the original ad). The valence of target and competing ads was manipulated in the Keller study, but only a restricted range of competitive conditions was examined (i.e., one or three competing ads).

The research basically examined the effects of ad retrieval cues on memory and evaluations under different competitive ad conditions and considered how the effects of competitive advertising and ad retrieval cues depend on the valence of the target ad.

Memory is affected by two main types of communication effects: (1) representation of the ad itself (i.e., the brand claims expressed in the ad) and (2) responses to the ad (i.e., cognitive responses generated during ad exposure). Accessibility or likelihood of retrieval of communication effects will depend on their organization in memory and the retrieval cues present in the recall setting.

Keller (1987) showed that recall of brand claims was higher when a target ad was competing with one rather than three advertised brands. Burke and Srull (1988) showed that recall of information presented in target ads was much higher when subjects saw no competing ads than when they saw one, two, or three other ads. When no other competing brands are advertised, the presence of product category as

a retrieval cue presumably allows access to the ad memory trace and its contents even if the brand name is not strongly associated to the ad memory trace. Thus, in Keller's study it was hypothesized that the more competing brands advertising in the product category, the lower the recall of communication effects for a target ad is

Next, besides quantitative aspects of competitive advertising, qualitative aspects also affect recall. The distinctiveness of a piece of information in memory positively influences its retrievability and resistance to interference. The effectiveness of a specific cue will depend on its similarity to the encoded trace but also on its similarity to other traces that are then said to interfere with successful retrieval of the wanted event. For example, assume that two brands are advertising in a product category. If consumers evaluate both brands positively and like both ads, then both ad memory traces would likely be associated with "good brands in the product category" and stored close together in memory. Although consumers would presumably not actually overlook an ad memory trace with only two ads, they may have difficulty distinguishing which ad corresponded to which brand. Therefore, Keller suggested the following assumption as well: A competing ad of the same valence lowers recall of communication effects for a target ad, compared with a competing ad that evokes different responses.

Another key factor affecting memory accessibility is whether external retrieval cues are available. Information is effective as a retrieval cue to the extent that it is stored in the memory trace with the to-be-remembered information ( Craik, 1979). Along these lines, Keller (1987) argues that in many settings, ad execution information may be more uniquely and strongly related in memory to brand claims in the ad than

to the brand name or identification of the advertised product.

The brand name may have relatively weak associations with elements of the ad memory trace as a result of a variety of factors (Keller, 1991a), such as the nature of the ad itself (either in its structure or content), the nature of the surrounding ad environment, and characteristics of the person processing the ad. As noted, competitive advertising can increase the likelihood that an ad memory trace is confused or overlooked. Because the brand name is a less effective retrieval cue, executional information from the ad (eg., photo, headline, other graphic from a print ad) may be more strongly linked to the experience of and knowledge acquired from ad exposure. Thus, competitive knowledge can result in weaker links between ad retrieval cues and other communication effects in memory. From this theory, Keller derived his third hypothesis which was: An ad retrieval cue has a greater facilitating effect on recall of communication effects for a target ad in the presence rather than the absence of competing ads in the product category.

It has also been argued that the actual information retrieved from memory for evaluations depends on its relevance (Baker and Lutz, 1987) or diagnosticity (Feldman and Lynch, 1988) as well as its accessibility. When competing ads have the same valence as the target ad, consumers may have difficulty identifying which ad corresponds to which brand in the product category, but evaluations of the target brand should not be affected by accessibility problems because (1) regardless of any confusion, the result would still be retrieval of an ad memory trace, the contents of which were roughly of the same valence as that of the target ad and (2) consumers presumably could recall that all advertised brands had roughly similar valence. Thus,

even if consumers were not able to access the particular ad memory trace associated with the target brand, their overall product category evaluations could be viewed as relevant or diagnostic for inferring its quality.

When competing ads are of a valence different from that of the target ad, however, accessibility problems should lead to different evaluations of the target brand than would occur if there were no competing ads. For instance, consider two brands advertised in a product category; one ad is either well or poorly done, and the other has the opposite valence. If a good target ad is confused with a bad competing ad, then lower evaluations of the target brand should result, compared with when there are no competing ads and thus no confusion. Similarly, if a bad target ad is confused with a good competing ad, higher evaluations of the target brand should result. With these assumptions in mind, Keller derived yet another hypothesis:

Evaluations for a good (bad) target ad will be lower (higher) in the presence of competing ads of different valence in the product category.

When ads in a product category have the same valence, the product category itself functions as an effective retrieval cue. If such ads vary in valence, however, the product category fails to function as an effective cue. In such cases, correct recall of communication effects from the ad memory trace should have a considerable effect on brand evaluations, and the ability of cues to help access such elements becomes more important. Thus, in Keller's study it was hypothesized that an ad retrieval cue will have a greater effect on evaluations of a target ad in the presence of competing ads of differing valence.

Although a competing ad of the same valence as a target ad should be

particularly confusing and may lower recall of the target ad's contents, evaluations should not be similarly affected because (1) any information recalled incorrectly should have roughly the same valence as information recalled correctly and (2) overall product category evaluations should also be accessible and relevant or diagnostic.

The results of Keller's study showed that more competing brands advertising in the product category, resulted in lower recall of brand claims for a target ad. Furthermore, interference effects resulted from confusion with competing ads and failure or inability to retrieve.

Another finding was that a high level of competitive advertising varying in valence reduced recall of cognitive responses and, most important, produced lower evaluations of a good target ad and higher evaluations of a bad target ad.

It was also found that the valence of a competing ad can affect memory performance but that the valence of a competing ad did not affect recall of cognitive responses or evaluations of the target brand. Furthermore, with one competing ad, recall of brand claims was lower when the competing ad's valence was the same as that of the target ad rather than when it was different.

Another finding was that interference effects were more pronounced for recall of brand claims than for cognitive responses. Also, failure to recall brand claims from the ad did not affect evaluations of the target brand as long as cognitive responses from ad exposure were accessible.

In addition, this study showed that competitive advertising also had effects on ad retrieval cues. One of these effects was that the presence of an ad retrieval cue (i.e., a reduced version of the ad photo and headline) can lead to higher recall of

brand claims and cognitive responses and more favourable evaluations of a good target ad.

Keller's study also extended prior research by showing that ad retrieval can offset the detrimental effects of competitive interference: When subjects were given the ad retrieval cue, recall of cognitive responses for and evaluations of a good target ad with 3 competing ads did not differ from when there were no competing ads, which suggests that, even if subjects accurately recall what they thought about an ad when given a cue, they still had some difficulty correctly recalling the associated claims.

The results of Keller's study showed that ad retrieval cues resulted in higher brand evaluations when the target ad was good and lower brand evaluations when the target ad was bad. When there were three competing ads and subjects were not given the ad retrieval cue, evaluations for a good target ad were not significantly different from evaluations for a bad target ad. When there were three competing ads and subjects were given the ad retrieval cue evaluations for a good target ad were significantly higher than evaluations for a bad target ad.



**CHAPTER 7**  
**THE ATTITUDINAL EFFECTS OF BRANDS WITH DIFFERENT BRAND**  
**SHARES**

In Bird's and Ehrenberg's (1985) study on "Consumer Attitudes and Brand Usage" it was stated that in measuring an attitudinal response like "Is nourishing" towards a brand of frequently bought, popular goods, we may typically have that 40% of the population regard the brand as "nourishing". The question that was examined in Bird's and Ehrenberg's paper was why such a result occurred: From what factors can one predict that 40% of the population would consider Brand X to be nourishing and only 23%, say, would consider Brand Y to be so?

The basic finding from past studies has been that attitudinal responses towards a brand are largely conditioned by three kinds of factors. First and foremost, there is the brand's usage level and market share. Secondly, there may be some distinctive physical property of the brand. Thirdly, there may be something distinctive that has been said about the brand. Therefore, it follows that Brand X, which was thought to be "nourishing" by 40% of the population, appears to be in a more advantageous position than Brand Y, with only a 23% response. However, if brand usage is in fact a major determinant of the attitude in question, and if Brand X has far more users - say 50% of the population versus 10% for Brand Y - then the anomaly for brand Y is not that the number who regard it as nourishing is small (only 23% of the population), but that its number of users has remained so low (10%) compared with

its good image (as many as 23% of the population saying "Is nourishing").

### **DESCRIPTIVE AND EVALUATIVE MEASURES**

Attitudinal responses towards frequently bought branded goods may be broadly classified as either descriptive or evaluative.

Descriptive responses arise where an attitudinal measure primarily reflects a highly specific characteristic of the given brand. For example, Camay will tend to be rated as "more perfumed" than other brands of toilet soap, Weetabix as less likely to stay crisp in milk than other breakfast cereals etc.

In contrast to such descriptive responses we have "evaluative" responses. These are attitudinal measures which do not appear to reflect any major physical or promotional differences between brands, and which are therefore perhaps more properly "attitudinal". Typical evaluative attitude measures might be "reliable", "tastes nice", "good quality", "good value", "good texture", "used by young people", etc. In addition, more generalised attitudinal measures - dealing for example with the overall liking for a brand, with purchase intentions, or with brand awareness - tend to be evaluative rather than descriptive.

Evaluative measures are however not just "all in the mind". A major factor why one brand is rated higher by the population than another brand on any such variable seems to be its different usage level or market share. Therefore, one may conclude that whether people say that a brand has a given attribute generally depends on whether they buy the brand. In previous studies the response patterns of users and non-users distinguished between descriptive and evaluative attitudes. The finding

has been that for descriptive measures, current users and former users of a brand tend to agree (both users and non-users tend to say that All Bran "Is high in fibre" etc.), whereas the purely evaluative measures discriminate more sharply between users and non-users. Thus, the evaluative factor arises mainly because a high proportion of "users" and a low proportion of "non-users" of a brand say that it has the attribute. Since a big brand has more users, a larger proportion of the population as a whole will say it has the attribute than for a small brand. The main aggregate pattern is therefore that the more users a brand has, the more respondents say it has any of the stated attributes.

Bird's and Ehrenberg's (1985) results showed that the relationship between evaluative attitudinal measures and the brand usage levels is a very simple one in that in the data analyzed, the attitudinal response was directly proportional to the usage level of the brand. Thus the attitude/usage relationship held to within very close limits (correlation of .89 to .99) in 85% of the cases, and when it did not fit it tended to fail spectacularly, because of the clear cut descriptive properties of the brands.

Ehrenberg and Barwise (1985) conducted another study called "Consumer Beliefs and Brand Usage" and the results were similar to those mentioned above. The main finding was that more people generally give positive responses, like "popular with all the family", about a large brand than about a small brand. The underlying mechanism for this is that users of a large brand generally quite like it and fewer non-users do so. Since a large brand has more users and fewer non-users than a small brand does, the large brand will have more people in the population saying that it is "popular with all the family".

To illustrate, Sugar Puffs had 15% of the population saying it was "popular with all the family". This is because 10% of the population bought it regularly, of whom 51% said it was "popular", making up 5.1% of the population. Of the 90% non-users, only 11% said the brand was popular, making up 9.9% of the population. Thus,  $5.1\% + 9.9\% = 15\%$  claimed that Sugar Puffs was popular with all the family. In summary, the more users, the higher the proportion of people mentioning the brand and claiming that it has a certain attribute.

### **BRAND POPULARITY AND BRAND LOYALTY**

Raj, 1985, found that brands with a larger share of users have proportionately larger fractions of loyal buyers. Thus, the larger the number of loyal customers, the more stable the brand's market share, and the less vulnerable it will be to competitive efforts (Moran, 1976, Robinson, 1979). Conversely, a brand with a large number of nonloyal customers is more open to share erosion. Raj's results clearly indicated that there is a positive relationship between a brand's user share and its loyalty franchise. It was found that the larger brands with a large share of users have a proportionately higher fraction of loyal buyers. Brands that seek to improve their market positions have to be successful, both in terms of getting brand users and in developing their loyalty. The results also showed that for small share brands, short term promotional tactics such as advertising might only lead to temporary gains unless loyalty is simultaneously nurtured. Advertising for high share brands however proved to be more beneficial. Farris and Buzzel (1979) found evidence in the PIMS data that large market share businesses have lower advertising/sales ratios. They noted that a

larger brand's ability to spread advertising costs over a larger customer base could be an important reason for this. It is also possible that if larger brands have a larger franchise of loyal customers, as seen in Raj's results, the effectiveness of their promotional dollars is likely to be higher.

### **The Theory of Double Jeopardy**

The purpose of this section is to discuss a recurring and widespread phenomenon in competitive markets. In any given time period, a small brand typically has far fewer buyers than a larger brand. In addition, its buyers buy it less often. In other words, small brands generally attract less "loyalty" among their buyers than large brands do among theirs. Thirty years ago, the Columbia University Sociologist William McPhee (1963) noted this pattern for competitive items such as different comic strips and radio presenters. In comparison with a popular strip, one that was read by fewer people was usually also liked less by those few who read it. McPhee thought it unfair for less popular items to suffer in two such ways. Hence, he named the phenomenon "Double Jeopardy". Subsequently, this Double Jeopardy (DJ) pattern has been found to occur much more widely - for example, for branded packaged goods; the less popular the brand, the less loyal its buyers tend to be (Ehrenberg 1972, 1988; Martin, 1973; Schumann, 1968).

The "doubling" in the DJ effect is accounted for by (1) an initial disadvantage that such an unpublicized alternative is unknown to many people who therefore can not choose it, and (2) that the few people who do know the lesser alternative apparently do not choose it, not proportionally, as well as they do the other more

popular alternatives. According to Claude R. Martin "The larger the proportion of buyers of a product class who buy a particular brand, the larger will be the proportion of those buying the brand who will be loyal to that brand".

Ehrenberg, Goodhart, and Barwise (1988) asserted that small brands attract less loyalty because they are small (i.e., they have lower market shares). The authors claimed that the role of marketing factors such as price, distribution, advertising etc., which are factors which give brands their different sales levels, may in turn show up in the DJ pattern, yet rarely causing big or significant differences in brand loyalty. These marketing mix variables were considered to act in ad hoc ways and market share was considered to be the prime indicator upon which to base the study of the double jeopardy effect. The underlying conclusion of this study consisted of the fact that Double Jeopardy will arise whenever competitive items differ in their level of popularity.

#### **THE RELATIONSHIP BETWEEN ADVERTISER REPUTATION AND ADVERTISER CLAIM EXTREMITY**

Goldberg and Hartwick (1990) developed a factorial experiment in which the reputation of the advertising firm and the extremity of the advertising claim were manipulated. Two levels of advertising reputation, focusing on the expertise and trustworthiness of the sponsoring firm, were developed. It was found that product evaluation was significantly influenced by both independent variables and by the interaction between the two. Maximum attitude change was achieved with an intermediate level of claim extremity. With a high credibility source (high brand share

product), a generally positive relationship is found between claim extremity and attitude change.

According to Fishbein and Ajzen, individuals are more likely to accept message claims presented by a highly credible source (i.e., a high share brand), which leads to a greater attitude change with high credibility sources. Low extremity claims are likely to be accepted, even when presented by a low credibility source.

Conversely, when claim extremity is high and the potential for attitude change is great, source credibility becomes a critical determinant of the degree of message acceptance and attitude change. With a high credibility source, the claim will be accepted and substantial attitude change will result; with a low credibility source, the claim is unlikely to be accepted and little attitude change will occur.

One origin of source credibility that has been identified in marketing is the perceived reputation of the firm or company that makes or produces a product. Thus, Myers and Reynolds (1967) talk of corporate image, the consumer's impression of the company that is producing and selling a given product or brand, and Lutz (1985) discusses advertising credibility, the perceived truthfulness or honesty of the sponsor of an ad. Companies with positive reputations would seem to be in a better position to get consumers to believe their advertising claims.

Lutz has suggested that advertiser credibility and advertiser claim discrepancy combine to affect ad credibility, the extent to which a consumer perceives the claims made about a given brand to be truthful. Ad credibility, along with other perceptions of the ad, then influences individual attitudes concerning both the ad itself and the brand being advertised (MacKenzie and Lutz, 1989). Thus, one may assume that the

relationship between advertising claim extremity and ad credibility will be more strongly negative when the reputation of the advertiser is negative.

In Goldberg's and Hartwick's (1990) study two descriptions, one suggesting a negative reputation and one suggesting a positive reputation, were developed. The negative reputation description portrayed the company as relatively new and with a modest market share. Subjects were shown the video portion of the commercial without sound and were asked to read a potential script that the company was considering for use when they expanded into Canada. Subjects were then asked to evaluate how "accurate" or "exaggerated" the claim was.

As predicted in this study, an interaction between advertiser reputation and advertiser claim extremity was found for ad credibility, with the relationship claim extremity and ad credibility being more strongly negative for those given the negative reputation description than those given the positive reputation description. Such data support the mediating role of claim acceptance, postulated by Fishbein and Ajzen (1975). In this study, it was found that ad credibility combines with potential attitude change - a variable assumed to have a positive relationship with claim extremity.

Pechmann and Stewart (1990) also conducted a study in which market share and type of comparative claim were manipulated. Some findings were that direct comparative claims attracted attention and thereby enhanced purchase intentions for low share brands but detracted from purchase intentions for established brands by increasing awareness of competitors and sponsor misidentifications.

First, in this study, the researchers studied ads with both direct and indirect comparative claims, as well as non-comparative claims; furthermore, these ads



promoted established brands (both moderate and high share brands) as well as low share brands. Subjects were exposed to the test ads in a relatively naturalistic setting, and the researchers recorded the amount of time subjects spent reading each ad by means of a computerized or electronic magazine (Burke and DeSarbo, 1987). Twenty four hours later, subjects' recall was measured of the sponsors of the test ads and their top-of-mind awareness of the comparison brands, as well as their purchase intentions.

Thus, of greater relevance in this study was whether ads making direct comparative claims would attract more attention if the advertised brands have low market shares relative to the comparison brands (Murphy and Amundsen, 1981; Prasad, 1976). The assumption was that consumers would not be interested in low share brands, that they would be unlikely to purchase, so they would tend to ignore ads in which low share brands are compared with high share brands that they are likely to purchase. Therefore, a high share comparison brand can serve as an index and attract attention to the entire ad in much the same way that one's name can attract one's attention to a message (Tannenbaum, 1955).

A more theoretical rationale for this hypothesis is that information about high share brands is personally relevant, particularly to consumers who purchase these brands, and may be selected for further processing because relevant stimuli have lower perceptual thresholds (Bargh, 1982; Ratheshwar, Mick, and Reiting, 1990). It may be quite functional for consumers to selectively attend to information about high share brands that they regularly purchase. If persuaded that their brand is inferior, they can switch brands; otherwise, they can counterargue. Either response

is functional because cognitive dissonance is reduced (Frey, 1986).

In Pechmann's and Stewart's study it was hypothesized that other factors being equal, consumers are most likely to attend to an ad in which a low share advertised brand is directly compared with a high share comparison brand, less likely to attend to an ad in which this comparison is only indirect, and least likely to attend to an ad in which no such comparison is made. It was also hypothesized that other factors being equal, consumers are equally likely to attend to an ad for a high share brand regardless of whether this brand is compared with a low share brand.

Furthermore, based on prior research, comparing a low share brand with a high share comparison brand upgrades the former brand's image (Droge and Darmon, 1987; Gorn and Einberg, 1984; Sujan and Dekleva, 1987). Hence, in this study it was hypothesized that an ad making a direct comparative claim is most likely to enhance purchase intentions of a low share brand, and an ad making no comparative claim is least likely to do so.

An ad making a direct comparative claim is likely to inadvertently increase top-of-mind awareness of a moderate share comparison brand and sponsor mis-identifications. An ad making no comparative claim never states that the advertised brand is superior to its close competitor, which is also problematic. Thus it was predicted that using ads with indirect comparative claims would be the best compromise strategy for moderate share brands, particularly if such ads are equally attention getting.

Their findings suggested that ads making direct comparative claims are more effective at enhancing purchase intentions of low-share brands than ads making

indirect comparative claims or no comparative claims. Directly comparing a low share brand to a high share comparison brand attracts more attention , does not increase top of mind awareness of the comparison brand (as a result of a ceiling effect), and might not increase sponsor misidentifications (depending on the comparison brand).

In terms of high share brands, the results indicated that ads making no comparative claims were more effective at enhancing purchase intentions of high share brands than ads making either direct or indirect comparative claims. Directly comparing a high share brand to a low share comparison brand does not attract any additional attention, increases top-of-mind awareness of the comparison brand, and might possibly increase sponsor misidentifications. Consequently Pechmann and Stewart hypothesized that an ad making no comparative claim is most likely to enhance purchase intentions of a high share brand, and that an ad making a direct comparative claim is least likely to do so.

In terms of moderate share brands, the results indicated that ads making indirect comparative claims were more effective at enhancing purchase intentions of moderate share brands than ads making direct comparative claims. Directly comparing one moderate share brand to another does not attract any additional attention.

In summary, the results of this study showed that the effectiveness of advertising is contingent on the market share condition. For example, when the advertised brands had high shares, subjects tended to pay attention to the ads regardless of whether they were comparative or not. Brand share also plays a role in advertising effectiveness because of the fact that with high brand share products,

consumers have more awareness of the brands. Furthermore, in situations involving common, repeat-purchase products, the consumer may choose a brand on the basis of a simple heuristic (brand awareness, popularity, pricing, packaging etc.) and then evaluate the brand subsequent to purchase (Ray et al., 1973). High share brands have been seen a lot more than others either through advertising, use, exposures, etc. This relative frequency information of high share brands can be used as the basis for making inferences regarding product quality (Baker et al., 1986). For example, if the automatic frequency counting mechanism counts substantially more instances of communications about brand A than about brand X, then an inference may be made to the effect that brand A is better known, so it must be popular and probably better (Baker et al., 1986; Hasher and Zacks, 1984). Therefore, brand awareness may serve as a dominant choice tactic among inexperienced consumers presented with a brand selection task. One may furthermore conclude that advertising will be more effective for high share brands due to the fact that consumers are more aware of high share brands and this increased popularity may act as a choice tactic. An advertisement of a known brand may be preferred above one of a lesser known brand because of the belief that the product advertised is probably the best. Then, if the purchase experience is judged satisfactory, the decision heuristic may shift to "buy the brand I bought last time because it was satisfactory." Under these circumstances, consumers will have little motivation to process an ad of an unknown or lesser known brand because he/she is satisfied with the more popular brand and may resist change.

Hoyer and Brown (1990) conducted a study and found that brand awareness has considerable effect on consumer choice. Subjects who were aware of one brand

in a set of three sampled fewer brands over a series of four trials and were considerably less likely to select the high quality brand on a final choice than subjects who were not aware of the brands in the set. When awareness was present in an initial choice situation, subjects reported using it as a decision criterion in a high proportion of cases. After subjects had gained some experience with the choice task and had an opportunity to sample several brands, the use of awareness as a choice tactic declined in importance. The behavioral measure of observed brand choice confirmed the self reported use of awareness as a choice tactic, as a large majority of subjects in the awareness condition selected the known high share brand on the final trial. In summary, this study showed that (1) brand awareness is a prevalent choice tactic among inexperienced consumers facing a new decision task, (2) subjects who are aware of one brand in a choice set tend to sample fewer brands across a series of product trials, and (3) subjects who are aware of one brand in a choice set tend to choose the known brand even when it is lower in quality than other brands they have had the opportunity to sample.

## CHAPTER 8

### HYPOTHESES AND METHODOLOGY

#### HYPOTHESES

- H1: Relatively accessible attitudes can be created via repeated exposure with an attitude object.**
- H2: Accessible attitudes can also be created through increased knowledge or familiarity of the attitude object (as is the case with high share brands)**

\* It has been demonstrated both theoretically and empirically that attitudes which are repeatedly activated via repeated expression are more accessible from memory than those that are not repeatedly activated. For instance, the Fazio model (1986) suggests that as individuals develop mental representations of attitude objects which have more and/or stronger associations, the confidence and certainty with which they hold attitudes toward those objects increases. Thus, attitudes activated via repeated exposure to advertising will be more accessible than those which are not repeatedly activated. For the purposes of this study it is therefore suggested that increased advertising exposure will repeatedly activate attitudes and thus make them more accessible than those which are not repeatedly activated.

Next, there generally is a high correlation between brand share and brand familiarity. Large share brands tend to have more familiar buyers or viewers of ads. Therefore, one may assume that if a product has a high brand share, consumers will be more familiar with it and will be more capable of recalling the product. This repeated activation from memory makes attitudes more accessible.

**H3: A competing advertised brand of the same product category lowers attitude accessibility of communication effects for a target advertised brand.**

\* One important factor that has been shown to create interference and affect memory for an advertised brand is competitive advertising (Burke and Srull, 1988; Keller, 1987). Interference effects in memory occur when accessibility of communication effects is reduced by the presence of some other information in memory (Postman and Underwood, 1973). According to Keller's (1991) results, interference effects result from confusion with competing ads and failure or inability to retrieve certain information of target ads. The presence of other information in memory may cause target information to be either inaccessible or confused with other information. When no other competing brands are advertised, the presence of product category as a retrieval cue presumably allows access to the ad memory trace and its contents.

Thus, in terms of this thesis, it is hypothesized that in the conditions where competitive ads are also exposed, recall and accessibility will be lower for the target ads.

**H4a: Low and moderate repetitions have a greater impact on attitude accessibility when the brand share of the advertised brand is high.**

**H4b: High advertising repetition frequencies have the greatest impact on attitude accessibility when the brand share of the advertised brand is low.**

\* Because of consumer inertia and selective information processing, the assumption is that consumers are not interested in processing information about low

share brands with which they are less familiar and with which they are less likely to purchase, so they will tend to ignore ads promoting such brands. However, by increasing the advertising repetition for low share brands, consumers will become more familiar with the products, thereby making attitudes more accessible. Furthermore, when a product has a low brand share, consumers don't have the extensive knowledge/familiarity with the advertised object, thereby requiring more advertising repetition.

Unfamiliar or untried brands probably require very high levels of exposure before advertising begins to get the message across to induce trial. Brand awareness serves as a dominant choice tactic among inexperienced consumers presented with a brand selection task. Therefore, increased advertising exposures are required to induce this awareness. One may thus conclude that brands that consumers are not familiar with require heavy advertising to make attitudes more accessible.

Next, it has been proven in previous research that the more familiar one is with a brand, the more motivation one has to process the message contents of the ad concerning the more familiar, higher-share brand. This is because more familiar brands are more personally relevant to consumers, especially if they have used the product before. It may be quite functional for consumers to selectively attend to information about high share brands that they regularly purchase. Consumers tend to tune themselves in to ads promoting high share brands because they find them to be pertinent and perceptually salient. This may be traced back to the enrichment hypothesis or the "rich get richer" concept. People who are familiar with an advertised brand or who have tried them in the past use advertising as a form of re-



enforcement of their attitudes. A highly involved subject may scrutinize the product relevant information presented in the advertisement and will thus need less repetitions to comprehend and recall the message contents and access attitudes towards the product or advertisement. A non familiar viewer of the product being advertised may be less motivated and thus may require more time to process the message arguments. The recall of an ad is most likely influenced not by the number of exposures in the campaign but by the motivation of the viewer to process these exposures. Thus, since consumers may be less motivated to process information for unpopular brands, the attitudes of unfamiliar consumers may be influenced by the number of repetitions they have seen of an ad.

Furthermore, many findings have shown that increased familiarity of high share brands appear to make a difference in individual's recall ability only when the repetitions are kept at a moderate level. Thus, over-exposed ads lose any compounded advantage at higher repetition levels for high share brands with which consumers are generally familiar. When individuals are subjected to a heavier dose of ads, favourable attitudes and recall will reach a ceiling, then boredom and tedium will set in. Consumers then tend to shift their attention away from a message making recall and attitudes less accessible.

Due to predetermined preferences familiar consumers will have almost as accessible attitudes at low/moderate repetition levels as at high repetitions levels. This is because familiarity is a significant moderator of the effects of ad exposures and it is expected that low/moderate advertising repetitions will be more effective on familiar consumers, leaving unfamiliar consumers relatively unaffected.

- H5a: Attitudes which are more accessible are also held with more confidence and certainty.**
- H5b: Attitudes which are held with more confidence and certainty have a greater effect on the strength of the attitude-behaviour relationship.**
- H5c: Attitudes which are more accessible have a greater effect on the strength of the attitude-behaviour (a-b) relationship.**

It has been argued theoretically and tested empirically that by experimentally increasing the accessibility of attitudes from memory (by manipulating variables such as repetition and brand share), the strength of the relationship between attitudes and behaviour can be increased. Based on past empirical evidence it has been shown that attitudes formed on the basis of direct experiences are considered by individuals themselves as more reliable reflections of their evaluations of objects than attitudes formed without direct behavioral experiences (Ben, 1972). However, Fazio (1986) demonstrated that indirect experience attitudes (such as attitudes formed by repetition or familiarity) can make attitudes as accessible as direct experience attitudes. Thus, individuals can put as much trust in attitudes formed through direct experience as in indirect experience. Furthermore, it has been demonstrated that direct experience attitudes which tend to be more accessible, are held with more confidence, certainty, and clarity. Thus, one may presume that if indirect experience attitudes, such as those formed by advertising repetition, can be made as accessible as direct experience attitudes, then accessible indirect experience attitudes can also be held with as much confidence as direct experience attitudes. Therefore, one may assume that the resulting a-b relationship can be equally as strong as one brought about by direct experience and that the attitudinal effects will be held with more

confidence and certainty.

Finally, Berger and Mitchell's (1989) results showed that attitudes held with high levels of confidence are also better liked and have a greater effect on subsequent behaviour.

**H6: Evaluations for a popular (unpopular) target brand will be lower (higher) in the presence of competing ads of opposite brand strength in the product category.**

\* When competing ads of products of the same brand strength (market share) as the target ad are advertised, evaluations of the target brand should not be affected by accessibility problems because consumers presumably could recall that all advertised brands had a roughly similar valence. Thus, even if consumers are not able to access the particular brand name or ad memory trace associated with the target brand, their overall product category evaluations could be viewed as relevant for inferring its quality. Keller (1991) found that failure to recall brand claims from the ad did not affect evaluations of the target brand as long as cognitive responses from ad exposure were accessible.

When competing advertised brands are of a valence different from that of the target ad, however, accessibility problems should lead to different evaluations of the target brand than would occur if there were no competing ads.

The results of Keller's study showed that a high level of competitive advertising of products varying in popularity not only reduced recall of cognitive responses, but more importantly, also produced lower evaluations of a good target ad and higher evaluations of a bad target ad. Thus, one may assume that competitive advertising

may produce lower evaluations of a high share advertised brand and higher evaluations of a low share advertised brand. For instance, consider two brands in the same product category are being advertised in the same time slot; one brand is a popular, high share brand, and the other is a newly introduced in the market, low share brand. If the ad for the popular brand is confused with the ad of the unpopular brand, then lower evaluations of the target brand should result, compared with when there are no competing ads, and thus no confusion. Similarly, if the ad for a low share brand is confused with the ad of a high share brand, higher evaluations of the target brand should result.

Furthermore, Pechmann and Stewart (1990) also conducted a study in which market share and type of advertising comparative claim were manipulated. The findings were that direct comparative claims attracted attention and thereby enhanced purchase intentions for low share brands but detracted from purchase intentions for established brands by increasing awareness of the competitors (low share brands). In such cases, correct recall of communication effects from the ad memory trace should have a considerable effect on brand evaluations.

Finally, based on prior research, advertising (or even comparing) a low share brand with a high share competitive brand upgrades the former brand's image (Droge and Darmon, 1987; Gorn and Einberg, 1984; Sujan and Dekleva, 1987). Advertising both a low share and high share comparison brand in close proximity to each other does not increase top of mind awareness for the high share brand (as a result of the ceiling effect), but will increase awareness for the low share brand.

**H7a: Recall for high share brands will increase by a greater amount in the competition condition than in the no competition condition.**

**H7b: Recall for low share brands will be higher in the no competition condition than in the competition condition.**

\* It has been argued in previous studies (Johnson and Russo, 1986; Keller, 1991) that a low share brand does not have the same importance as a high share brand. Therefore, when two brand of opposite valence are advertised together, consumers will tend to defend the brand they know best (high share brand). The threat of a new, unfamiliar brand causes resistance to interference and this enhances their memory for the high share brand. Janis (1967) suggested that fear/threat is a drive in the sense that it induces subjects to search for what can suppress the feeling of danger. It is also a cue because the individual reacts to it. Thus, for high share brands, in the presence of competing lower share brands (threat) receivers may reject what threatens them by forgetting the message of the unpopular brands. For the high share brand in the presence of a competitive lower share brand, there is no threat that competitive advertising will increase the likelihood that an ad memory trace is confused or overlooked. Keller (1991) hypothesized that an ad retrieval cue has a greater effect on recall in the presence rather than the absence of competing ads. As for the low share brands, when they are not advertised with competitive higher share brands, consumers are given the opportunity to elaborate on the message and thus enhance their recall.

## **PURPOSE OF THE STUDY**

Having gathered all the previous research done on the areas of advertising repetition, consumer familiarity of brands, and brand share, what was sought was to know what the effects of advertising repetition and brand share would be on people's attitudes, attitude accessibility, recall, and subsequent behaviour.

## **METHOD:**

In this study, what was examined was whether advertising executions and brand share of the product being advertised would make attitudes more favourable, would allow people to hold their attitudes with greater confidence, would increase recall of the target brands, and would make attitudes as accessible from memory and held with as much confidence as attitudes formed by direct experience with the attitude object. What was also sought was whether attitudes that were highly accessible or held with high levels of confidence were equally predictive of behaviour.

**Model:** Completely randomized 2 x 2 x 3 factorial design consisting of 12 conditions (see lay-out of design on the last page of this chapter):

- a) 3 advertising exposures, target ads were of high brand share products; competing brands of the same product category were also advertised.
- b) 3 advertising exposures, target ads were of high brand share products; NO competing brands of the same product category were advertised.
- c) 5 advertising exposures, target ads were of high brand share products;

competing brands of the same product category were also advertised.

- d) 5 advertising exposures, target ads were of high brand share products; NO competing brands of the same product category were advertised.
- e) 3 advertising exposures, target ads were of low brand share products; competing brands of the same product category were also advertised.
- f) 3 advertising exposures, target ads were of low brand share products; NO competing brands of the same product category were advertised.
- g) 5 advertising exposures, target ads were of low brand share products; competing brands of the same product category were also advertised.
- h) 5 advertising exposures, target ads were of low brand share products; NO competing brands of the same product category were advertised.
- i) 1 advertising exposure, target ads were of high brand share products; competing brands of the same product category were also advertised -

**CONTROL GROUP**

- j) 1 advertising exposure, target ads were of high brand share products; NO competing brands of the same product category were advertised - **CONTROL GROUP**
- k) 1 advertising exposure, target ads were of low brand share products; competing brands of the same product category were also advertised - **CONTROL GROUP**
- l) 1 advertising exposure, target ads were of low brand share products; NO competing brands of the same product category were advertised - **CONTROL GROUP**

### **SUBJECTS:**

Subjects were members of the university community of Concordia University. Approximately four hundred and eighty (480) university subjects (240 males and 240 females) were randomly assigned to the 12 conditions mentioned above with approximately 40 subjects per cell (see identification of these cells on the last page of this chapter). Note that 480 subjects were used for the experiment but only 440 of the questionnaires were usable. The Marketing classes used were beginner courses of Marketing 213/4 and 350/4. Twelve marketing sections with a capacity of 50 students per section were chosen for the experiment. The professors teaching these students were approached before the experiment and asked permission for the participation of their students. Furthermore the students were encouraged to participate because they were offered extra course credit for their participation.

### **PROCEDURE:**

Subjects from the different marketing class sections were assigned randomly to one of the 12 experimental conditions. They were first given a sheet of paper with 5 product categories on it and they were asked to list the first 4 or 5 brand names of each category that sprung to mind. They were advised that what was important in this section was the name they thought of first, the name they thought of second and so on. This same section would have to be filled out again after the film presentation. This would allow the researcher to test top of mind recall before and after advertising exposures. Once the portion was finished, subjects then proceeded to view an edited film of a half hour sitcom show of FRASIER in which the target commercials (mentioned in the next section) were embedded at different intervals. They were



exposed to ads for either high share or low share brands of purchase goods. The product class of the target brands consisted of frequently purchased items that were readily available in stores. Brands were from a well established category and the target brands were of two extremes: two occupied a strong position in terms of market sales and popularity and the other two did not.

The four target brands were:

**GILLETTE'S SENSOR RAZOR:** the leading brand in its product class - high brand share

**WARNER LAMBERT'S WILKINSON PROTECTOR RAZOR:** competitor of Sensor but with a very low brand share. Recently introduced in the market with less than a 1% brand share (A.C. Nielsen data-January/February, 1994).

The Gillette Sensor was chosen as the high brand share product because according to the A.C Nielsen data of March/April 1994, Gillette had a 35% market share for all its "systems razors" (which are razors such as the Sensor, Sensor for Women, and Sensor Excel- i.e., razors that are NOT disposable). Wilkinson's market share for systems razors was only 1.8%. Gillette's systems share was 80.3% and Wilkinson's was a marginal 4.2%. Furthermore, Gillette's Sensor had a 14.2% share of the total blade market as of March/April 1994 and the Wilkinson Protector had only a 0.2% share. In addition, in terms of the TOTAL RAZORS MARKET, Sensor had a 22.3% share as of March/April 1994 and Protector had a 2.2% share. It is important to note that "razors share" implies the share of the actual razor whereas "blade share" is the share of the disposable blades or cartridges made for the razor.

In March/April 1994 total Gillette razors accounted for 70.8% of razors and Wilkinson Protector held a share of 17.3% of razors. Furthermore, Sensor had a higher share of the total systems blade market than any other of its competitors including TOTAL SCHICK (3.1%), and TOTAL WILKINSON (4.5%). All of the above data is actual data derived from sales of Canadian Grocery Banner and Drug stores. Finally, in a 1993 National Consumer Study, 74.8% of all males (i.e., all the respondents) were aware of the Sensor razor and 47.8% of these respondents were aware of the product even if they hadn't seen an advertisement for it. The Wilkinson razor had not yet been introduced and thus awareness data was not available for Wilkinson Protector. Therefore, one may conclude that the manipulation of using Sensor as a high share brand and Protector as a low share brand was valid.

\*\* It is important to note that as of the May/June 1994 edition of the Nielsen survey data, Warner Lambert released an article stating that the Wilkinson Sword Protector had gained a 23.4% market share nationally, surpassing the 14% share of Sensor. However, this share was that of Grocery, Drug, AND MASS MERCHANDISERS. The shares that were stated previously were ONLY for Grocery and Drug stores, thus, on this basis, the Protector share has not surpassed that of Sensor. However, if this information was accurate and the Protector is accomplishing such a fast growth, it was important to keep in mind that people's attitudes during the experiment of this lower shared brand would not be as anticipated in the hypotheses.

**PROCTER AND GAMBLE'S PANTENE SHAMPOO:** leading brand in its product class - high brand share.

**GILLETTE'S TAME SHAMPOO:** competitor of Pantene - has always occupied the low end of the market - low brand share.

Although Pantene's market share was not made available to me, Tame's market share for the total Tame shampoo line (i.e., original Tame, Tame Plus, and Tame Essentials shampoo) as of March April 1994 was 3.9%. Pantene's market share is much higher than this; however the exact share for the latter product is not known because Procter and Gamble, its manufacturer considered this information to be of a highly confidential nature.

In this study the interest was on the impact of increased advertising on attitudes.

attitude confidence, recall, and attitude accessibility on the a-b relationship when these brands were repeatedly advertised.

Subjects were also exposed to other ads of other products and product categories. Some of these other brands that were advertised were direct competitors of the target brands. The number of exposures was held constant for all subjects so that each subject saw 1, 3, or 5 exposures of the target brand ads but at different conditions. The control group saw only one single exposure of each ad (including the target brands) throughout the different conditions.

At the conclusion of the film presentation subjects received a questionnaire containing the dependent measures. Subjects were asked to read the introductory

instructions and the experiment began. An explanation for the purpose of the study of the study was not given because this may have biased the results.

Subjects were then asked to report their attitudinal evaluations and attitude confidence for the target brands (which consisted of the products that had been advertised). Furthermore, they were asked, among a list of products which they would purchase the next time they might need a product of that sort. This would measure the relationship between attitude accessibility and the attitude-behaviour relationship. Furthermore, on the introductory page of the questionnaire, respondents were advised of the speed accuracy trade-offs inherent in the task and told to answer as accurately as possible. Attitude accessibility was operationalized in terms of response latency to a variety of 50 attitudinal and recall questions. A time recording clock was purchased for the specific use of this research. This clock portrayed hours, minutes, and seconds. In the accessibility sections of the questionnaire, the subjects were asked to fill in the slots stating "TIME: \_\_\_\_\_ SECONDS \_\_\_\_\_". In other words the respondents recorded their own response latency (how long it took them to complete that section of the questionnaire) by writing down the time they began that section of the experiment (including the seconds) and then recording the time they finished that section. After the response time task, there were questions measuring demographic information (age, sex, university year) and recent consumption behaviour of the advertised target brands. Upon completion of the questionnaire the subjects were thoroughly debriefed and thanked for their participation and dismissed.

**Stimulus Material:** Subjects were presented with approximately 20-25 ads not including the 3 or 5 exposures for the target brands. Some ads for other different products were repeated 3 or 5 times, some only once, and the ads for Sensor, Wilkinson, Pantene, and Tame were repeated through each of the conditions. Furthermore, in some conditions, competing brands of the target brands (and of the other advertised brands as well) were also advertised. For instance, in the 3 repetition condition-high brand share products-advertising of competitive brands, the ads for Sensor and Pantene were repeated 3 times. However, the ads for the lower share target ads (Wilkinson and Tame-their competitors) were also presented once or twice in this condition to check for the recall and the evaluative communication effects when more competing brands of the same product category were advertised. Furthermore, this would allow one to verify if a competing ad of a product with differing popularity levels would lower the recall of a communication effect for a target ad, compared with a competing ad that evoked different responses. In addition, in the 3 repetition-low share brands-no competition condition, the target ads (Tame and Wilkinson) were repeated three times throughout the movie presentation, however their high share competitive ads (Pantene and Sensor) were shown. This, once again, was done to check for recall and evaluative effects of the ads of both high share and low share products. Ads were placed in a movie at different intervals of each other. It should also be noted that in the competitive advertisement condition, for every single advertisement shown throughout the presentation, a competitive ad for a product of the same product category was also shown. For instance, in the competition condition, an advertisement for Edge Gel was shown and several

advertisements later an advertisement for Gillette Gel was also exposed.

The ads were arranged so that no two repetitions occurred together for any brand so that subjects were able to clear their mind of previous executions. The relatively long lag between the first and last occurrences of the target ads served an important purpose. List learning studies have shown that the attention attenuation that occurs when a word is repeated in immediate succession is eliminated by the inclusion of just one other item between the two presentations of the repeated item.

### **DESIGN:**

Previous studies have shown that 3 or 5 repetitions are appropriate representations of moderate and high exposures. Therefore, in this study, 3 and 5 iterations in advertising were chosen to represent moderate and high levels of exposures and were considered sufficient to attain adequate levels of attitude accessibility and recall.

### **MATERIALS:**

**Product Category:** Several product categories were sought that (1) were familiar to the subject population, (2) provided product variety and differentiation, and (3) provided a relevant and measurable behavioral opportunity. Two brands of shampoo and two brands of razors were used in this study because they satisfied all these criteria. These categories were selected as the attitude objects because of their category familiarity to undergraduates and their category variety.

### **INDEPENDENT VARIABLES:**

**a) Brand Share:** The key moderating variable, brand share, was manipulated in several stages: First, the target commercials contained 2 newer brands with generally smaller market shares with which subjects were less familiar. For instance, Tame shampoo has a low market share and has recently been re-launched as "Tame Essentials", an introduction which consumers are still relatively unfamiliar with.

In summary, subjects were exposed to ads of products which were either of a high or low brand share. The purpose of this was to see if brand popularity (market share) would bias people's attitudes toward the brand, make attitudes more accessible, or increase the probability of behaviour.

**b) Advertising Repetition:** Subjects were exposed to one of three levels of advertising repetitions. Three and five exposures represented moderate and high repetition frequencies respectively. In the control group, subjects received only one exposure to the 4 target ads and one exposure of all the other ads that would be part of the study. In the 3 repetition condition, subjects were exposed to 3 ads of the target products which were of both high or low market share brands.

**c) Competition:** Certain conditions required that competitive advertisements of the target ads also be shown to demonstrate that competitive advertising can influence evaluations of a target brand. In other words, what would be examined is the effects of attitudes and ad retrieval cues on memory and evaluations under different competitive ad conditions. For instance, in the 3 repetition, competition condition of high share brands, the commercials for Pantene and Sensor were shown 3 times but the advertisements of their competitors (Tame and Wilkinson) were also shown once.

### **DEPENDENT VARIABLES:**

**a) Attitudes:** Attitudes were measured using semantic differential scales anchored by "good-bad" and "like extremely-dislike extremely" etc. to generate whether positive or negative feelings towards the brand were incurred. The bi-polar adjectives were bad-good, like extremely-dislike extremely, unfavourable-favourable and others (see appendix i for questionnaire and attitude measure questions). Non-target ads were also addressed in the questionnaire.

**b) Attitude Confidence:** Attitude confidence was measured with two 9 point scales anchored by the statements "not at all certain/very certain" and "completely confident/not at all confident".

**c) Attitude Accessibility:** Since accessibility was operationalized as a subject's response latency to an inquiry, subjects were required to fill out a speed questionnaire. The subjects themselves had to record the response latency (in seconds, minutes, etc.) for certain sections of the questionnaire. Subjects responded to questions that linked the brand with each anchor of a positive-negative adjective pair. The adjective pairs were good/bad, like/dislike, pleasant/unpleasant, superior/inferior, nice/awful, interesting/boring, beautiful/ugly, useful/pointless, cheap/high quality, different/ordinary, economical/luxurious etc. Also, 2 product attribute questions for each brand were presented (i.e., Name the shampoo whose advertisement claims it has pro-vitamin B-5) and the subjects were required to name the brand to which this attribute belonged. There were approximately 50 recall,



attitude, attitude accessibility, and product attribute questions.

**d) Recall:** Recall of the target products was assessed by the request that subjects list all the respective brands from given product categories they remembered off the top of their mind, both before and after the film presentation. For instance, both before and directly after the advertising exposures, respondents were given a sheet of paper which served as an aided recall measurement, with 6 product categories on it, 2 of these categories being shampoo and razors, and the other 4 acting as just a cover-up to ensure that respondents didn't catch on to the fact that the target brands consisted of shampoos and razors. The question then asked subjects to list the first 4 or 5 brands names for each product category that sprung to mind. Subjects were told that it was not important if they thought of 5 but which one they thought of first, which one they thought of second, and so on. Distributing this question both before and after the questionnaire acted as both a top of mind recall measure and as an indication as to whether repetitive advertising affected people's first, second, and third choices as well as their top of mind recall.

Recall is important because if one recalls a brand, one can also activate his/her attitude from memory. Recall was measured because without activating an object from memory, one can not activate his/her attitudes about that object. Furthermore, subjects were given descriptions and quotations coming directly from the commercials themselves, of the various products advertised, and were asked to write down to which product the attribute belonged to. The questions about the target brands were placed relatively early in the booklet to avoid subject fatigue and

boredom and to maximize the effectiveness of the manipulations.

Following some additional questions, subjects were instructed to list the thoughts that crossed their mind as they examined the target ad. These thoughts were then scored on several dimensions.

After listing their thoughts, several questions were asked to check on the experimental manipulations.

**e) Behaviour:** The behavioral measure consisted of two 9 point scale questions asking the respondents a) on a scale of 1=very unlikely to 9=very likely, how likely is it that you would purchase .....(the 4 target brands were then listed) and b) on a scale of 1=would definitely not purchase to 9=would definitely purchase what is the state of your intention in purchasing .....(the 4 target brands were then listed).

Another behavioral question asked respondents "If you could choose among these 4 products, which would be your first and second choice?". The alternatives consisted of competitors of the target brands. Some of them had been advertised during the experiment. The brand that the subject chose constituted the behavioral measure.

The purpose of this section of the experiment was to relate attitudes of the target brands to the likelihood of purchase behaviour.

## *FACTORIAL DESIGN OF THE EXPERIMENT*

	1 REPETITION	1 REPETITION	3 REPETITIONS	3 REPETITIONS	5 REPETITIONS	5 REPETITIONS
<b>HIGH SHARE BRAND</b>	<u>COMPETITION-</u>  1 AD OF THE HIGH SHARE BRANDS (SENSOR & PANTENE) AND 1 AD OF THEIR COMPETITORS (TAME & PROTECTOR)	<u>NO COMPETITION</u>  1 AD OF THE HIGH SHARE BRANDS (SENSOR & PANTENE) BUT NO ADS OF COMPETITIVE BRANDS (TAME & PROTECTOR)	<u>COMPETITION</u>  3 AD REPETITIONS OF THE HIGH SHARE BRANDS (SENSOR & PANTENE) AND 2 ADS OF THEIR COMPETITORS (TAME & WILKINSON)	<u>NO COMPETITION</u>  3 AD REPETITIONS OF THE HIGH SHARE BRANDS (SENSOR & PANTENE) BUT NO ADS OF COMPETITIVE BRANDS (TAME & PROTECTOR)	<u>COMPETITION</u>  5 AD REPETITIONS OF THE HIGH SHARE BRANDS (SENSOR & PANTENE) AND 2 ADS OF THEIR COMPETITORS (TAME & PROTECTOR)	<u>NO COMPETITION</u>  5 AD REPETITIONS OF THE HIGH SHARE BRANDS (SENSOR & PANTENE) BUT NO ADS OF THEIR COMPETITORS (TAME & PROTECTOR)
<b>LOW SHARE BRAND</b>	<u>COMPETITION</u>  1 AD REPETITION OF THE LOW SHARE BRANDS (TAME & PROTECTOR) AND 1 AD OF THEIR COMPETITORS (SENSOR & PANTENE)	<u>NO COMPETITION</u>  1 AD REPETITION OF THE LOW SHARE BRANDS (TAME & PROTECTOR) BUT NO AD OF THEIR COMPETITORS (SENSOR & PANTENE)	<u>COMPETITION</u>  3 AD REPETITIONS OF THE LOW SHARE BRANDS (TAME & PROTECTOR) AND 2 ADS OF THEIR COMPETITORS (SENSOR & PANTENE)	<u>NO COMPETITION</u>  3 AD REPETITIONS OF THE LOW SHARE BRANDS (TAME & PROTECTOR) BUT NO ADS OF COMPETITIVE BRANDS (PANTENE & SENSOR)	<u>COMPETITION</u>  5 AD REPETITIONS OF THE LOW SHARE BRANDS (TAME & PROTECTOR) AND 2 ADS OF THEIR COMPETITORS (SENSOR & PANTENE)	<u>NO COMPETITION</u>  5 AD REPETITIONS OF THE LOW SHARE BRANDS (TAME & PROTECTOR) BUT NO ADS OF COMPETITIVE BRANDS (PANTENE & SENSOR)

## CHAPTER 9

### ANALYSIS AND RESULTS

#### RESULTS FROM PILOT STUDY

A pilot survey was conducted prior to the actual experiment to verify if there was an actual difference in people's attitudes and recall on the 4 target brands (see appendix ii for a sample of the pilot questionnaire).

First of all, the brand shares of the target brands were derived from A.C Nielsen data. The brand shares for Sensor, Wilkinson, Tame and Pantene showed that Tame and Wilkinson were in fact very low share brands, and that Sensor and Pantene did in fact occupy the higher share end of the market

However, despite the actual facts that the products differed in brand share, I felt it was nevertheless important to verify if people did in fact perceive the higher share target brands to be more popular than the lower share target brands.

In the first question of the pilot test, respondents were asked to write down the first four or five brand names of both the razor and shampoo categories that sprung to mind. This question was asked to verify that Gillette Sensor razor and Pantene Shampoo were among the first two choices the respondent wrote down.

The results for this question showed that out of 26 respondents, 19 placed the Gillette Sensor razor as the first brand that sprung to mind, and 3 put it down as the second choice (i.e., 22 out of 26 respondents placed it as either the first or second choice). Wilkinson, however, had one mention as a #2 brand and 5 mentions as a #3 brand. Other brand names that were mentioned were BIC, Atra, and Schick,

however, these mentions were of no relevance and need not be brought up since the products will not be used in the experiment. In sum, the measure of using Sensor for the high share brand and Wilkinson for the low share brand, thus far was effective (see appendix iii for the pilot results).

The same question was also asked in the shampoo category. Out of the 26 respondents, Pantene got 6 responses as a #1 brand, 2 responses as a #2 brand (i.e., 8 respondents on 26 placed it as the first or second choice), and 4 responses as a #3 brand. In total, out of 26 respondents, 17 mentioned Pantene amongst one of their 5 choices. These recall results were not as good as the results in the razor section but one must also keep in mind that the shampoo market is quite saturated and has hundreds of competitors from which consumers can choose from. Furthermore, Pantene shampoo is mainly targeted to the female market and since approximately only half of the respondents were female, this may also be a reason why Pantene did not get as many mentions as Sensor.

However, compared to Tame, the measure was quite effective. Only 2 respondents mentioned Tame (one respondent mentioned the brand as a #2 choice and one respondent mentioned it as a #3 choice). Head and Shoulders got almost just as many mentions as Pantene (6 respondents mentioned it as a #1 choice, 1 respondent mentioned it as a #2 choice, 3 respondents as a #3 choice). In total, 11 respondents mentioned Head and Shoulders amongst one of their 5 choices.

The next set of questions asked on the pilot test were attitudinal measures where the respondents were asked to indicate their feelings about the four target products. The attitudinal measures were based on 7 point Likert scales consisting of

bad/good, like extremely/dislike extremely, product is superior to competitors/product is inferior to competitors, cheap product/high quality product, different product/ordinary product, good image/bad image, popular brand/unpopular brand.

The means for each product on each dimension were calculated and a paired difference test for small samples was conducted to see if the average change was different from zero. The test statistic used was:

$$t^* = \frac{\text{Average Change}}{\frac{\text{S change}}{\text{sq. rt. of } n}}$$

For instance, the means for Pantene and Tame for each dimension and for each individual person were calculated (ex: on the good/bad dimension, if person #1 gave Pantene a score of 2 and gave Tame a score of 5 then the change is +3). The next step consisted of calculating the change for each individual person and for each individual dimension and deriving a mean score for all the changes. The following step consisted of deriving the standard deviation of change (S change) whose formula is:

S change = the square root of:

$$\frac{[\text{Sum (Change for Individual } i - \text{Average Change) squared}]}{n - 1}$$

A two-tailed t-test was conducted and the t critical was found in a t-table by using alpha at the .05 level with the appropriate degrees of freedom. It is very important to note that this specific test was conducted because the sample was a **DEPENDENT** one. This index is not very different from the index of the t-test assuming independence of the two samples, but it is different enough to alter the results from non-significant to significant at the .05 level.

The following results show the average change of the means for the target brands under the different attitudinal dimensions (Likert scales), as well as the S change.  $T^*$  is then calculated and compared to  $T_{crit}$ . to see if there is a **SIGNIFICANT DIFFERENCE** of the means.

Sensor Razor/ Wilkinson Razor:

**good/bad:** Where 1=good and 7=bad, Sensor got an excellent score of 1.94, and Wilkinson scored at the mid-way point at 3.8. The next step was to test for a significant change to see if the average change was different from zero.

$$\text{Avg. Change} = 1.93$$

$$S \text{ change} = 1.169$$

$$t^* = \frac{\text{Avg. Change}}{S \text{ change}}$$

$$\frac{1.93}{1.169}$$

$$\text{sq. rt. of } n$$

$$= \frac{1.93}{1.169}$$

$$\frac{1.169}{\text{sq. root of } 14}$$

$$\text{sq. root of } 14$$

$$= 6.17$$

T crit. at an alpha of .025 (2 tailed test) and 13 d.f = +/- 2.160

Since  $t^* > 2.160$  there is a significant difference of means.

Nine respondents on 26 did not respond to the question for Sensor, possibly because they had never used the product before. Those who did rate it however, rated it very well.

As for the Wilkinson razor, 11 respondents out of 26 did not rate it at all because they had either never heard of or had never tried the product. However, those who did rate it, gave it mid-way scores, most of the scores ranging from 4 to 6.

**\*\* It should be noted that if a respondent for instance, gave a rating for Sensor but did not rate Wilkinson, then this respondents ratings were disregarded. If a subject did not rate both brands then it would be impossible to do a PAIRED difference test. Therefore, for the ratings of Sensor and Wilkinson, only 14 of the 26 questionnaires were usable, and for Pantene and Tame ratings, only 15 of the 26 questionnaires were usable.\*\***

**like/dislike:** On a scale of 1=like to 7=dislike, the mean respondent rating for Sensor was 3.06 and for Wilkinson was 4.53. Once again, 9 respondents left the question blank when asked to rate the Sensor razor and 11 respondents did the same for the rating of the Wilkinson razor.

Avg. change = 1.43

S change = 1.949

$t^* = 2.745$

t crit 13 d.f = +/- 2.160



Thus, since  $t^* = 2.745 > t_{crit} = 2.160$ , we can reject the null hypothesis stating that the two means are not different from zero, and conclude that there is a significant difference of means.

**superior/inferior:** On a scale of 1=superior to 7=inferior the mean response rating for the Sensor razor brand was 2.69 and for the Wilkinson razor was 4.53. Once again Sensor got an excellent rating and Wilkinson leaned closer to inferior than to superior. This showed that people do indeed perceive the Sensor Razor as being better than any other in its category. However, the test had to once again be conducted to see if this difference of the means was indeed significant.

Avg. change = 1.64

S change = 1.906

$t^* = 3.222$

$t_{crit. 13 d.f} = \pm 2.160$

Once again, since  $3.222 > 2.16$  we can conclude that there is a significant difference of means, and that overall, people perceive the Sensor razor as a superior product.

**High quality/cheap:** On the scale where 1= high quality and 7= cheap, the mean response rating for Sensor was 2.25 (an excellent rating) and 4.27 for Wilkinson, which was again was a mid-way rating. Once again, the rating for Sensor leaned more towards high quality than low quality.

Avg. change = 1.86

S change = 1.748

$t^* = 3.983$

$t_{crit} 13 d.f = +/- 2.16$

Since  $t^* > t_{crit}$  we can conclude that there is a significant difference of means and that Sensor is perceived as a higher quality product.

**good image/bad image:** The mean score awarded to the Sensor brand was 2.25 on a scale of 1=good image to 7=bad image. Wilkinson's score was 3.93. This too, was a crucial attitudinal measure that proved that people perceive the Sensor razor as being more popular. The paired difference test also showed that the average change was different from zero.

Avg. change = 1.71

S change = 1.53

$t^* = 4.181$

$t_{crit} at 13 d.f = +/- 2.160$

Thus, since  $t^* > t_{crit}$ , it can be concluded that there is a significant difference of means and that Sensor is perceived as having a better image than Wilkinson.

**popular/unpopular:** The mean score for Sensor was 1.88 which is a fabulous score and which leans much closer to popular than to unpopular. Wilkinson's score was not quite as good as Sensor's and with a score of 4.93, the brand's ratings leaned closer to unpopular than to popular.

Avg. change = 2.93

S change = 1.47

$t^* = 7.46$

t crit. at 13 d.f. = +/- 2.16

The paired difference test once again showed that we can reject the null hypothesis of the equality of means and conclude that the average change is different from zero and that Sensor is perceived as the more popular brand.

**So, in conclusion using Sensor as a popular high share brand and Wilkinson as the less popular low share brand was quite effective.**

#### **Tame/Pantene Shampoo:**

Before getting into the difference of means for each Likert scale dimension, it should be noted that only 2 people left the Pantene attitudinal measure questions blank, meaning that 24/26 respondents knew of the product and furthermore, gave it excellent ratings. As for Tame Shampoo, 10 of the 26 respondents knew absolutely nothing about the brand and thus left the question blank. Those who did rate the brand gave it average or mid-point ratings. So this alone is one indication that the measure for shampoos using Pantene as the popular, high share brand and Tame as the less popular low share brand is valid.

**good/bad:** Pantene got an excellent rating (on a scale of 1=good to 7=bad) of 2.08 and Tame was at the mid-way point with an average rating of 4.563.

Avg. change = -2.33

S change = 1.42

$t^* = -6.35$

t crit. at 14 d.f. = +/- 2.145

Thus, since  $t^* = -6.35 < t \text{ crit.} = -2.145$ , we reject the null hypothesis and conclude that there is a significant difference in the mean ratings for the two brands on a good/bad dimension. Overall, Pantene is rated as the better product on this scale.

**like/dislike:** The mean score for Pantene was 3.33 and for Tame, 4.44. Although this average rating for Pantene was very close to Tame's lower rating, Pantene's rating was still closer to liking than to disliking the product.

Avg. change = -1.533

S change = 1.995

$t^* = -2.98$

t crit. at 14 d.f. = +/- 2.145

Thus, since  $t^* = -2.98 < t \text{ crit.} = -2.145$ , we can conclude that there is a significant difference from zero of the two mean ratings. Pantene seems to be liked more than Tame.

**superior/inferior:** The mean score for Pantene was 3.708 and the mean score for Tame was 4.813. It seemed very unusual that on all the other dimensions, as will be discussed later, Pantene always got very good mean ratings, but on this one, the mean rating was very close to the mid-way point, almost equalling the rating for Tame.

However, one must also recall that the shampoo market consists of hundreds of competitors from which consumers can choose from, and very often, consumers can get confused when comparing one to the other. The "superior/inferior" mean rating for the two target shampoos was the only one whose difference was NOT significantly different.

$$\text{Avg. change} = .688$$

$$S \text{ change} = 2.519$$

$$t^* = -1.092$$

$$t \text{ crit. at 15 d.f.} = \pm 2.131$$

Therefore, since  $-1.092 > -2.131$  we can conclude that there is no significant difference and that the average change of the means is not different from zero.

**high quality/cheap product:** Once again, with a mean score of 2.2 for Pantene and 5.13 for Tame, people tended to rate Pantene by giving it excellent scores which leaned closer to high quality than to cheap, and they tended to rate Tame at the mid-point or lower mark. Tame's ratings leaned closer to cheap.

$$\text{Avg. change} = -2.933$$

$$S \text{ change} = 1.44$$

$$t^* = -7.91$$

$$t \text{ crit. at 14 d.f.} = \pm 2.145$$

Since,  $t^* = -7.91 < t \text{ crit.} = -2.145$ , one may conclude that the average change of the means is different from zero and that Pantene is perceived as the higher quality product.

**good image/bad image:** The mean score for Pantene on this Likert measure was 2.792, and 4.56 for Tame.

Avg. change = -2.067

S change = 1.733

$t^* = -4.62$

t crit. at 14 d.f. = +/- 2.145

Since  $t^* < t$  crit. we can reject the null hypothesis, conclude that there is a significant difference of the means, and furthermore conclude that Pantene is perceived as having a much better image than Tame.

**popular/unpopular image:** The mean score awarded to Pantene for this attitudinal measure was 2.46 and for Tame was 4.12.

Avg. change = -2.13

S change = 1.82

$t^* = -4.55$

t crit. at 14 d.f. = +/- 2.145

Since  $t^* = -4.55 < t$  crit. = -2.145, the null hypothesis of the non significant difference of means is rejected, and it is concluded that Pantene is viewed as the more popular brand and Tame as the more unpopular.

Once again, this was a good check to verify that Pantene was indeed a more popular brand than Tame. Except for one attitudinal measure (superior/inferior product) all the mean ratings for the Likert attitudinal measurements proved to be significant and overall, Pantene got much better scores than Tame.

The second to last question of the pilot test asked respondents which razor they believed to be more popular (Sensor or Wilkinson) and which shampoo they believed to be more popular (Tame or Pantene).

**Frequency of responses for most popular product**

<u>GILLETTE SENSOR</u> <u>RAZOR</u> 25 subjects stated it as most popular	<u>WILKINSON PROTECTOR</u> <u>RAZOR</u> 0 respondents stated it as most popular	<u>PRODUCTS ARE THE</u> <u>SAME</u> 1 respondent claimed that both razors were equally popular
<u>PANTENE SHAMPOO</u> 22 subjects stated it as most popular	<u>TAME SHAMPOO</u> 1 respondent stated it as most popular	<u>PRODUCTS ARE THE</u> <u>SAME</u> 3 respondents claimed that both of the shampoos were equally popular

In sum, for the razor category, 25 out of 26 respondents (96%) chose Sensor as being the more popular razor and one respondent claimed he rated them the same. For the shampoo category, 22 out of 26 (84.6%) respondents chose Pantene as being the more popular shampoo, 1 out of 26 chose Tame, and 3 out of 26 claimed the shampoos were the same.

The final question asked if brand share affects the respondent in how he/she rates a product. Fifteen out of the 26 respondents said YES (57.7%) and 11 out of 26 respondents said NO (42.3%).



## **CHAPTER 10**

### **RESULTS FROM EXPERIMENT**

The results of this study will be presented in two chapters. This chapter will present the direct tests of the a-priori hypotheses outlined above, leaving the explanations of the findings to the following chapter. The chapter begins by examining the descriptive evidence regarding the composition of subjects in each condition. Direct tests of the accessibility hypotheses will be presented in subsequent sections, followed by the interaction effects of repetition and brand share on attitude accessibility, and finally ending with the effect of attitudes on the attitude behaviour (a-b) relationship.

#### **DESCRIPTIVE CHARACTERISTICS**

As noted earlier, a number of measures were taken in order to ensure that the subjects in each condition were similar on a number of characteristics that were thought to influence their responses to the products. Crosstabs were performed for the groups by both sex and education and the table below gives some of the descriptive characteristics of the cells.

### Descriptive Characteristics

	<u>c1</u>	<u>c2</u>	<u>c3</u>	<u>c4</u>	<u>c5</u>	<u>c6</u>	<u>c7</u>	<u>c8</u>	<u>c9</u>	<u>c10</u>	<u>c11</u>	<u>c12</u>
no. in cell	22	22	39	37	39	31	39	49	41	40	33	32
females	13	12	27	20	27	8	20	27	23	15	11	9
% females	59%	55%	69%	54%	69%	26%	51%	55%	56%	38%	33%	28%
males	9	10	12	17	12	23	19	22	18	25	22	23
% males	41%	46%	31%	46%	31%	74%	49%	45%	44%	63%	67%	72%
% 1st yr. students	68%	77%	36%	32%	33%	70%	36%	74%	73%	55%	36%	47%
% 2nd yr. students	27%	14%	56%	65%	33%	23%	54%	10%	20%	35%	36%	34%
% 3rd yr. students	5%	9%	8%	3%	13%	7%	10%	12%	2%	8%	12%	16%
avg. # of TV hrs.	11	11	9	15	13	10	11	12	12	7	8	11

For both the percentages/frequencies of males and females per group and for the percent of students in each university year, chi-square tests were conducted to test for significant differences among the groups. For the gender differences among groups the test was significant at  $p=.00046$ . These results suggest that the cells did differ due to the inequality of males and females in some of the groups. As noted previously in the methodology chapter, an effort was made to control the ratio of males to females, however, it was impossible to successfully do this since the experiment was conducted in actual marketing classes that took place on different days and at different times. Thus, it was not possible to split up the groups so that the number of males and females could be exactly equal and therefore better proportioned.

However, as it will be mentioned later in this chapter, sex was used as a co-variate in the analysis of variance to control for the effects that may have been attributed to gender differences. It will also be mentioned later on that sex as a co-variate was not found to be significant, therefore, the differences in groups due to sex was not an issue to cause concern.

As for the average university year, crosstabs of the groups by education showed that the majority of students were in their first (frequency = 221) or second (frequency = 146) year of university education. The chi-square test also showed significance ( $p=.0000$ ) indicating that there was a variation in the groups due to the level of education. However, education probably plays a minimal role since all the respondents were exposed to the same task of watching a film and answering attitudinal questions. It was not expected that the level of education (i.e., whether a subject was in his first or second year of university) would affect his/her comprehension of the film or the questions which were of a general nature.

It was concluded that the randomization of subjects into conditions did not proceed as expected but, having used sex as a co-variate, it is not assumed that these differences might influence any of the hypotheses being examined. Furthermore, as mentioned previously, it is not expected that the differences in education are important in terms of this study.

Another question asked of subjects was what they thought the purpose of the research was. The answers were many and varied. The following table shows the responses that subjects gave and the frequency of subjects who gave a particular answer.

<u>COUNT</u>	<u>RESPONSE</u>
34	HOW ADS <u>ATTRACT</u> CONSUMER <u>ATTENTION</u>
72	HOW ADS ENCOURAGE TO <u>BUY</u>
71	AD <u>RETENTION-MEMORY</u> EFFECTS
53	HOW ADS <u>INFLUENCE</u> US/AFFECT JUDGMENT
47	<u>RESPONSES/REACTIONS</u> TO ADS
7	<u>HOW LONG/SPEED</u> IT TAKES TO ANSWER QUESTIONS ON ADVERTISED PRODUCTS
5	HOW <u>REPETITION</u> AFFECTS <u>JUDGMENT</u>
9	TESTING <u>AWARENESS</u> OF PRODUCT ADS OF <u>BRAND</u> <u>NAMES</u>
6	WHAT ADS MAKE US PAY <u>ATTENTION</u> TO PRODUCTS
2	TO SEE WHICH PRODUCTS ARE <u>HIGHLY DEMANDED</u>
8	WHICH ADS HAVE BETTER <u>MKTG STRATEGIES</u>
7	BLANK SPACE
3	ARE WE <u>LOYAL/PRICE ORIENTED?</u>
26	TESTING <u>PERCEPTIONS OF PRODUCTS</u>
16	TESTING <u>PERCEPTIONS OF ADS</u>
25	ADVERTISING <u>EFFECTIVENESS</u> -GOOD/BAD ADS
4	TO SEE IF <u>REPETITION OVERKILL</u> AFFECTS JUDGMENT
1	SEEKING FOR USES OF DIFFERENT PRODUCTS
4	HOW <u>REPETITION</u> AFFECTS <u>RECALL</u>
1	WHICH <u>COMMERCIAL TECHNIQUES</u> WORK BEST
1	IF PEOPLE TO LISTEN TO ADS BEFORE BUYING
4	TESTING <u>MEMORY BEFORE AND AFTER AD</u>
2	TESTING ATTITUDES OF <u>GILLETTE/PANTENE</u> PRODUCTS
2	GETTING FEEDBACK OF PRODUCTS OF INTEREST TO THAT AGE GROUP/ <u>GENERATION CONSUMPTION</u> <u>RESEARCH</u>
1	MEASURING <u>FREQUENCY OF USE</u> OF PRODUCTS
7	COMPARE ADS OF <u>COMPETING BRANDS</u>
2	WHAT <u>CHARACTERISTICS OF ADS</u> ARE OBSERVED MOST
1	TO DETERMINE HOW <u>MKT. ORIENTED</u> WE ARE
1	HOW <u>NAIVE</u> PEOPLE ARE AT BELIEVING
12	TO SEE IF VIEWING ADVG. OF <u>UNKNOWN BRAND</u> CAN CHANGE CHOICE FROM <u>WELL KNOWN BRAND</u>
4	<u>MKTG. RESEARCH</u>
1	HOW MKTG. <u>POSITIONS</u> CERTAIN PRODUCTS
1	<u>VIEWS OF ADVG.</u>
440	TOTAL RESPONSES

It is quite obvious from the above responses that the majority of subjects were aware of the fact that advertising was a major factor of the purpose of the research. The majority of responses fell under the categories of "retention/memory effects of advertising", "how ads attract consumer attention", "how ads encourage consumers to buy", "how ads affect judgments and evaluations", and "responses and reactions to ads". However, despite the fact that subjects had caught on that advertising effects was one of the purposes of this research, none of them mentioned the major purpose of this experiment, which was testing repetition's and brand share's effect on attitude accessibility, evaluations, and recall. Furthermore, it should be noted, that the question "What do you think was the purpose of this study?" was placed at the end of the questionnaire. This was an error because by that time, respondents had already answered questions on the commercials and knew that advertising had something to do with the study. Had the question been placed at the beginning of the questionnaire, there would have been a lot more ambiguous answers as well as a lot more blank spaces.

Finally, concerning the average number of TV hours viewed, the differences in groups were not significant with an F-value of 1.4588 and a probability level of .1529. Thus, the average number of TV hours watched by the subjects did not vary from one group to the next.

## **ATTITUDE ACCESSIBILITY**

The accessibility hypothesis to be examined here has two parts. Firstly, that attitudes formed on the basis of repeated advertising exposures are more accessible from memory than attitudes formed on the basis of a single advertising exposure. Secondly, attitudes for more familiar brands, such as high share brands, are more accessible from memory than attitudes formed for lower share or less popular/familiar brands. Hence, with this in mind, it is expected that attitudes formed on the basis of 5 repetitions are more accessible than attitudes formed on the basis of 1 or 3 repetitions and that attitudes of high share brands are more accessible than the attitudes of low share brands.

The accessibility hypotheses using both repetition and brand share as independent variables were examined by conducting a series of analyses of variance of response latency by using share and repetition as the independent variables. The ANOVA's were conducted for both the razor and shampoo categories with and without competition. The following section gives the ANOVA results of response latency by share by repetition.

### **Anova Results of Response Latency by Share by Repetition:**

The ANOVA conducted for the razor category-competition condition, had significant main effects with an F value of 4.058 and a p value of .008. The 2 way interaction was not significant with a p value of  $.159 < p = .05$ . Despite the fact that the main effects of both repetition with competition and brand share together were significant, only brand share was significant when the 2 independent variables were

separated. For instance, the main effects of repetition alone had an F value of 2.177 and a significance of .117. The main effects of brand share had an F value of 8.171 and a significance of .005. Thus, it is obvious that in this case repetition did not make as big a difference as brand share did on attitude accessibility.

Next, since the differences in gender composition in each group had been proven significant (as previously mentioned), the same ANOVA was conducted but this time sex was used as a covariate. Using sex as a co-variate did not show any significance  $F=1.033$  and  $p=.311$ , thus the ANOVA's for male/female variation were not studied any further since the insignificance of sex as a co-variate proved that the gender differences in groups had nothing to do with the variations in groups. The differences of response latency by gender were also studied for another reason: in the Berger and Mitchell (1989) experiment, it was found that, on average, men responded to the attitudinal inquiries faster than women. In this case, no significant differences were found.

The second ANOVA examined was for the shampoo category-competition condition. The main effects for response latency for shampoos using brand share and advertising repetition of both target and competitive brands as the independent variables, were significant ( $F=4.050$ ,  $p=.008$ ), but the 2 way interactions were only significant at the  $p=.10$  significance level because the F value was 2.326 and the significance ( $p$ ) was .101. Once again, as in the razor category with competition, only brand share had significant main effects ( $F=9.154$ ,  $p=.003$ ). When the two independent variables were analyzed separately, repetition alone did not have any significant effect on accessibility ( $F=1.203$ ,  $p=.303$ ). Using sex as a co-variate did not

prove significant at an F value of .212 and a p value of .646, thus the ANOVA's for gender differences need not be discussed any further.

The next ANOVA was conducted for the razor category-no competition condition. The main effects of response latency by share and repetition were significant with an F value of 6.780 and p value of .000. The 2-way interactions were not significant and had an F value of .658 and a p value of .519. Looking at the independent variables one at a time proved that brand share alone had an effect on response latency ( $F=19.101$ ,  $p=.000$ ) but repetition by itself did not have an effect ( $F=1.016$ ,  $p=.364$ ). Once again, sex as a co-variate was not significant so the gender differences of males and females were not pursued any further.

The last and final ANOVA was conducted for shampoo accessibility-no competition condition. The main effects, with an F value of 3.826 and a p value of .011, were significant but the 2-way interaction with an F value of 1.929 and a p value of .148, was not. In this case, repetition by itself had significant main effects but only at the .10 level of significance ( $F=2.547$ ,  $p=.081$ ). Brand share, as always was significant with an F value of 6.002 and a significance of .015. Sex as a co-variate ( $F=.132$  and  $p=.717$ ) did not cause any variation in the results.

Finally, it should be noted that there were no interactions found between share and repetition in all the MANOVA's.



## **H1 and H2: Increasing Accessibility via Repetitions and Familiarity**

Accessibility was operationalized as the response latency to an attitudinal inquiry. For each individual, there were 12 attitudinal Likert type measures for each target brand which was averaged to create an overall attitude accessibility score for each individual. Appendices 1 and 2 give the mean attitude accessibilities by repetition condition and the results of direct tests of the above hypotheses. Recall that higher latencies represent lower accessibilities. An examination of the mean accessibility scores indicated that in the no competition condition (accessibilities dealing with competition will be discussed in subsequent sections) there was little difference between the accessibilities in repetition conditions 1 and 3 -the maximum difference being about 5 seconds. In other words, attitudes formed on the basis of 3 repetitions did not appear to be much more accessible than attitudes formed with one single exposure. In both cases (razors and shampoos), attitudes formed at three exposures proved to be even less accessible than attitudes formed at the one exposure condition. However, attitudes formed on the basis of 5 repetitions of advertisements for high share brands were less accessible than attitudes formed in either one or both of the other two repetition conditions. For instance, appendix 1 shows that for the razor category-no competition condition, accessibility for Sensor declined at the 5 repetition condition versus the 3 repetition condition for Sensor. In the no competition condition for the high share brands latency increased slightly from the 3 to 5 repetitions (plateau), but for the low share brands in the no competition condition, latency declined as it was hypothesized that it would (appendix 1 and 2). Therefore, Hypothesis 1 which stated that attitudes formed through more exposures are more

accessible than attitudes formed on the basis of a single advertising exposure was not wholly supported because it seemed to apply only to the low share brands. For instance, the latency for high share brands, always reached a plateau from the moderate to high exposure levels (i.e., latency either increased or decreased by less than 1 second) and latency decreased considerably for the low share brands from the 3 to 5 repetitions. The latency results for the high share brands were the same as the theoretical propositions and findings of Powel and Fazio's (1984) experiment. The effects of repetition on accessibility showed that initial repetitions (1 and 3 repeated expressions of one's attitude) were more influential than later repetitions (6 repetitions).

Secondly, the magnitudes of the response latencies reported by Fazio et al. (1982) were a little higher than those found in this experiment. Response latencies in the Fazio et al. study were in the 6 to 8 second range for each attitudinal inquiry. Thus, since in this experiment there were 12 attitudinal measures, we should presume that in comparison with Fazio's study, the magnitudes of the response latencies should be 72 (6 x 12) to 96 (8 x 12) seconds. In this experiment the highest response times were approximately 67 seconds in the 1 and 3 repetition conditions and 66 seconds in the 5 repetition condition (see appendix 1,2,4,5). Therefore, the latencies in this study were in the 3 to 5 second range for each attitudinal inquiry. Similar to the findings of this study, response latencies found by Gardner, Mitchell and Russo (1978), by Berger and Mitchell (1989), and by Powell and Fazio (1984) were also in the 3 to 5 second range per attitudinal measure.

The second part of the accessibility hypothesis claims that more familiar or

higher share brands are more accessible from memory than attitudes formed for less popular or unfamiliar brands.

The accessibilities for the shampoo brands Pantene and Tame support this hypothesis. Appendices 2 and 4 clearly show that Pantene's latencies for the 1,3, and 5 exposure conditions are considerably lower than Tame's. Sujan (1991) claimed that in terms of low share brands, when the information is discrepant from category knowledge, consumers engage in more analytical processing and take longer to form an impression of the product.

The results for Sensor and Wilkinson however showed the opposite results - the response latencies for the high share brands were higher than for the low share brands. By looking at appendices 1 and 3, one can clearly see that Sensor's latencies are much higher than Wilkinson's. The reason this is presumed to be so is because the attitudinal questions for Sensor were the first ones to be answered (see questionnaire in appendix). What is presumed to have happened is that subjects were probably not yet comfortable with answering the attitudinal scales and thus took longer to do so for the first product, which in this case was the Sensor razor. However, when they flipped the page and saw the exact same attitudinal questions for the other target brand, they by then knew how to answer the questions and thus took less time to do so.

Thus, it should also be noted that one limitation in this study is that the attitudinal measures were not in random order as they were in the Berger and Mitchell (1989) study.

In addition, when the conceptual framework for this experiment was put

together almost a year ago, the Wilkinson Protector razor had newly been introduced and had less than a 1% market share. However, in a year's time, the product enjoyed rapid growth and today it has approximately a 20% share of the market and thus poses a great threat to Sensor. In other words, there is a good possibility that when this experiment took place, respondents had just as much knowledge of the Wilkinson Protector razor as they did of the Sensor razor. For a given choice decision among several brands it can be expected that if the brands are close together in the decision maker's preference structure, the choice will be more difficult and hence will take longer than if one clearly dominates the others. This may be one of the reasons why answering the attitudinal questions may have taken a little longer than expected for the Sensor razor.

Judging from the shampoo latencies which are presumed to be more accurate than the razor latencies, it is safe to accept H2 and presume that higher share brands are held with more accessible attitudes.

Finally, despite the fact that H1 and H2 were not wholly supported, direct tests of hypotheses proved that there was some support for H1 and H2. Since all the main effects were significant, it was safe to conclude that relatively accessible attitudes can be created via repetition and familiarity (brand share).

### **H3: COMPETITION'S EFFECT ON ACCESSIBILITY**

It was argued in hypothesis 3 that a competing brand of the same product category lowers attitude accessibility for the target brand. The findings relevant for this hypothesis will now be reviewed:

#### **Low Share Brands:**

An extremely large number of advertisements considerably influences the recall processes in a negative way: forgetting the characteristics of the product or service promoted in the ad is enhanced by the increasing competition for consumers' time and attention.

If one looks at appendices 2 and 4 for the shampoo category, one will see that for low share brand, Tame, response latency is much higher at the 1 repetition condition in the competition condition than in the no competition condition (55.50 to 49.00). However, an unexplainable finding is that at 3 repetitions the response latency in the competition condition (appendix 4) drastically declines to 43.89 seconds but where in the no competition condition (appendix 2) latency increases to 52.76 seconds. It was expected that competition would make latency increase at 3 repetitions and not decrease. Finally, look at the 5 repetition condition for the low share Tame product in appendices 2 and 4. In the competition condition (appendix 4) latency again drastically increases from the 3 to 5 repetitions by almost 10 seconds (43.89 seconds to 52.36 seconds) whereas in the no competition condition (appendix 2), latency falls from 52.76 seconds to 43.16 seconds (i.e., at 5 repetitions, latency is higher in the competition condition). The same thing occurs for low share brand in the razor

category (appendices 1 and 3). In the razor category with competition condition (appendix 3) the latency is higher at 1 repetition than in the no competition condition (appendix 1). Notice that latency is 53.93 seconds in the competition condition and 51.81 seconds in the no competition condition. Latency then increases at 3 repetitions in the no competition condition to 56.44 seconds, whereas in the competition condition, it declines to 47.89 seconds. At 5 repetitions latency takes a drastic incline in the competition condition to 61.59 seconds whereas in the no competition condition it declines to 50.87 seconds. Thus, H3 which claims that competitive advertising lowers accessibility of a target brand, is valid only at the 1 and 5 repetition conditions. Notice that for the low share brands in the competition conditions (appendices 3 and 4) competitive advertising has a detrimental effect on accessibility at the low and high exposure levels (i.e., this is where latency is at its highest).

According to Isen (1987) what is probably happening for the low share brands in the competition condition is that in the first stage (from the 1 to 3 repetitions), the positive affect caused by exposure is used as a cue which allows to recollect the positive material in memory which renders this material more accessible. The fact that a competitive brand is also advertised makes attitudes less accessible than in the no competition condition. In the second stage (3 repetitions), positive memories which are re-activated increase the intensity of the emotional state or at least maintain it. Notice that in both the competition and no competition conditions at the 3 repetition condition that latency either decreases or is maintained as the theory claims. However, this being a low share brand which seems to be competing with a high share brand that consumers are familiar and comfortable with, the competitive

advertised brand poses as a threat to the consumers' familiar product. With further repetitions in the competition condition, if the low share brand is advertised in close proximity with its competitors (where consumers see both their familiar brand and the new low share brand), elements associated with negative affects such as threat, denial, and aversive tension are triggered. This threat then stimulates very few thoughts for the product, thus making attitudes less accessible. As this cue of threat is unpleasant, the individual tries to suppress it and then to avoid external stimuli which have produced that state or which are associated with it. Thus, in the case of fear/threat arousing messages, receivers reject what frightens them: i.e., they forget the message or the issue at hand. Thus, this may be the reason why in the competition condition the accessibility for low share brands for both the shampoo and razor categories decreased at the 5 exposure levels. Thus, one may conclude that for the low share brands in the competition condition only, accessibility increases at moderate repetition exposures but decreases at higher repetition levels.

#### **High Share Brands:**

Appendices 2 and 4 clearly show that for the shampoo category in both the competition and no competition condition, accessibility is almost a straight line (plateau). This is because recall (according to Helgeson and Beatty, 1987:380) is a reproduction of a previously encoded stimulus and is influenced by expectation and past experiences. Not only do expectations affect initial stimulus encoding but they also have an impact on retrieval by serving as a possible default value when memory fails. This is what probably happened at the 1 repetition condition for shampoos. It

was expected that in both the competition and no competition condition for shampoos (appendices 2 and 4) latency at 1 repetition would surely be higher than at 3 repetitions. However, in both cases, latency for Pantene (high share shampoo) was almost the same at 1 repetition as it was at 3 repetitions. What probably happened is that consumers, when they didn't remember the ad message for the high share brand, Pantene, relied on their past experiences and previously encoded thoughts and stimuli.

If one looks at the high share brand, Sensor, in appendices 1 and 3, one will notice that almost the same pattern occurred as in the Pantene situation. That is to say that the accessibility remained almost at a plateau with a maximum difference of 5 seconds from the 1 to 5 repetition conditions. For Sensor at 1 repetition in the competition condition (appendix 3), latency is obviously higher than in the no competition condition (appendix 1). Latency at the 1 repetition with competition condition is 67.1 seconds and latency at the 1 repetition-no competition condition is 63.06 seconds. Latency then is higher in the no competition condition than in the competition condition at the 3 and 5 exposures. This is opposite to what was expected. It was expected that since respondents were subjected to competitive ads, latency would be higher in the competition condition due to interference effects that competitive ads may have caused. A similar pattern occurs for Pantene. Pantene's latency is higher in the no competition condition at all 3 exposure levels. It was expected that accessibility would increase in the no competition condition because subjects only have one ad to remember and to retrieve information from whereas in the competition condition, exposure of competitive ads may cause confusion. Notice



that at the 3 repetition condition in the competition condition (appendix 3), accessibility for Sensor is higher than in the no competition condition. This is because threat enhances memorization, but there is a threshold beyond which the phenomenon is reversed and memorization decreases. Janis (1967) suggested that negative affects such as fear/threat act as both a cue and a drive. Below the threshold, threat, however unpleasant, arouses attention (eg., notice that at 3 repetitions accessibility becomes better in the competition than in the no competition condition). In the competition condition, subjects are willing to attend to the message which challenges their behaviour (eg. fact of not switching to the new Wilkinson Protector razor which claims it is the "safest, closest wet shave"). This may be why in the competition conditions latency is generally lower than in the no competition condition. Notice that latency declines from the 1 to 3 repetitions - subjects are attending to the message. Conversely, beyond the threshold, threat is acting as a drive: subjects are motivated to avoid and/or delete the message from memory. Subjects could then dismiss the whole message because the emotional state triggered by it is too much to bear. This may explain why for the high share brand in the competition condition, latency remains stable from the 3 to 5 repetitions but latency for the low share brand increases dramatically from the 3 to 5 repetitions (appendices 3 and 4).

The pattern for the high share brands in the no competition condition was almost the same as in the competition condition (see appendices 1,2,3,4). Latency was a little lower at the 1 repetition condition but then reached a plateau between the 3 and 5 repetition conditions. This is consistent with Stayman and Aaker (1988) who

found that the direct effect of feelings (attitudes, attitude accessibility etc.) appear to be the strongest at lower exposure levels. High share brands are usually familiar to consumers and are encrusted in one's memory. Thus, one may conclude that H3 is accepted but only for the low share brands. Competition lowers accessibility for the low share brands because people already have accessible attitudes for high share brands.

In addition, in order to explain the plateau situation that occurs for the more popular brands, one may propose that being high share brands as they are, and being personally relevant to the person watching the commercial, especially if that person uses the brand, the viewer takes more time to respond to attitudinal measures because he/she is trying to re-enforce his/her thoughts that the brand that he/she is using is better. This is why latency does not change drastically for the high share brands from the 1 to 3 and 3 to 5 repetitions but always stays constant. What may also possibly be happening is that at the 5 repetition condition for high share brands, the viewer may be trying to be too accurate with all the information that he/she has been exposed to.

#### **The Effects of Merging the Competition and No Competition Conditions:**

Due to the fact that there were so many differences and inconsistencies in latency between the competition and no competition conditions, the 2 conditions were merged and ANOVA's were run on the reduced number of cells in order to see if the results would differ with the original findings.

### **Anova Results of the Merging of the Two Competition Conditions:**

The main effects of latency by share and repetition for the razor category had an F value of 8.764 and a p value of .000 but the 2 way interactions was not significant and had an F value of .120 and a p value of .887. Once again, the main effects of repetition on its own were not significant ( $F=.468, p=.627$ ) but the main effects for brand share were ( $F=25.432, p=.000$ ). Sex as a co-variate was not significant so this was not pursued any further. The ANOVA for the shampoo category also had significant main effects with an F value of 5.448 and a p value of .001. Once again, the 2 way interaction was not significant and had an F value of .668 and a p value of .513. Repetition by itself did not have any significant effect on latency ( $F=.285, p=.752$ ) but brand share did ( $F=15.720, p=.000$ ). Sex as a co-variate was not significant with an F-value of .010 and a p value of .922 thus once again, the analysis was not continued beyond this point. In conclusion, the merging of the 2 competition conditions did not seem to make a difference in terms of finding significant interactions or major differences from the splitting of the 2 conditions.

### **Attitude Accessibility with the Merging of the Competition Conditions:**

For the razor category (appendix 5), the same results were basically derived as before in the competition condition (appendix 3) except that the pattern of the line was more smoothed out. Sensor's latencies remained at a plateau but increased by approximately 1 second at each repetition condition. This was in accordance with theory that states that subjects don't need to be exposed too often to advertisements of high share brands. Low or moderate repetitions are sufficient since subjects are

motivated to process the message of a brand that is perceptually salient to them. The result for the low share brand, however, was not consistent with previous findings. It was expected that at the 5 repetition condition latency would decrease but instead it increased slightly. As explained previously, it could be that the presence of the competitive ad, Sensor, tuned attention away from Wilkinson and decreased accessibility. This is consistent with the theory that people are more responsive to messages of better known brands.

Furthermore, other findings have shown that increased familiarity of high share brands appears to make a difference in individual's recall ability only when the repetitions are kept at a moderate level. Researchers have found that viewers who are familiar and thus more motivated to process the ad don't require to view as many ad repetitions. According to Tellis (1988), over-exposed ads lose any compounded advantage at higher repetition levels for high share brands.

The above findings from other studies are consistent with the findings in this study for the razor category-competition and no competition conditions together (appendix 5). For the high share brands there was really no compounded advantage to advertising since the latencies were at a plateau level.

The shampoo accessibility with the merging of the 2 competition conditions (appendix 6) was consistent with the theory that low share brands require extra advertising to make attitudes more accessible and that high share brands only require low or moderate levels of exposure because anything beyond that is not beneficial. Appendix 6 demonstrates that Pantene's latencies are the lowest at the low or moderate repetition conditions and that Tame's latencies are the lowest at 5

repetitions.

#### **H4: IMPACT OF LEVEL OF REPETITION AND SHARE ON ATTITUDE ACCESSIBILITY**

The following hypotheses had been made in the methodology chapter:

**H4a: Low and moderate advertising exposures have the greatest impact on attitude accessibility when the brand share of the advertised brand is high.**

**H4b: High advertising exposures have the greatest impact on attitude accessibility when the brand share of the advertised brand is low.**

#### **High Brand Shares (Sensor and Pantene):**

In general, the response latency for high share brands was almost the same between the 3 and 5 repetition conditions. For instance, in the razor accessibility-competition condition (appendix 3) the response latency (RL) at 3 repetitions was 62.15 seconds and at 5 repetitions it was 62.97 seconds. For the shampoo accessibility-competition condition (appendix 4) the RL was 43.21 seconds at 3 repetitions and 42.78 seconds at 5 repetitions. In the razor accessibility-no competition condition the response latency at 3 repetitions was 65.54 seconds and at the 5 repetitions it was 66.1 seconds (appendix 1). For the shampoo accessibility-no competition condition (appendix 2) the RL was 44.15 seconds at 3 repetitions and 44.30 seconds at 5 repetitions. For the high share brands, Pantene and Sensor, in both the competition and no competition conditions, the lowest latencies occurred at either the low exposure (1 repetition) or moderate exposure (3 repetitions) conditions

(appendices 1,2,3,4 ). In addition, appendices 1,2,3,4 show that there is no added benefit for increased advertising for the high share brand. It seems that for high share brands, only a moderate exposure level was needed to form accessible attitudes - anything going beyond the moderate level of exposures was not beneficial. Stang (1973 and 1975) found that continued repetition beyond that necessary for initial learning leads to boredom or satiation and repeated exposure ultimately produces negative affect towards the stimulus. When exposed repeatedly to a favourable ad, subjects are likely to respond positively at first because they have more opportunity for attention, retention and cognitive elaboration. However, further repetition has no beneficial effect because subjects are no longer stimulated to new elaboration and tire of hearing the same message. Thus, they tune their attention away from the message and they retain less. Furthermore, Powel and Fazio (1984) explored the relationship between repeated expression and attitude accessibility. They varied the number of times subjects expressed their attitudes (0,1,3, or 6 times) and measured the resultant response latencies. In this case, they found that as attitudinal expressions increased, latencies decreased but at a decreasing rate till they reached a plateau. Later repetitions did not have as strong effects as did earlier ones.

Therefore, it is safe to accept H4a and conclude that low/moderate advertising exposures have the greatest impact on attitude accessibility when the brand share of the advertised brand is high.

### **Low Brand Shares (Wilkinson and Tame):**

As for the low share brands, the general finding was that in the no competition condition the response latency increased from the 1 to 3 repetition condition and then decreased again from the 3 to 5 repetition condition (inverted U shape). For instance, for razor accessibility-no competition condition (appendix 1), the RL was 51.81, 56.44, and 50.87 for the 1, 3, and 5 repetition conditions. The same pattern occurred for the low share shampoo accessibility-no competition condition. Once again, the response latency went from 49 seconds at 1 repetition to 52.76 seconds at 3 repetitions and then declined again to 43.16 seconds at 5 repetitions (appendix 2). A different pattern occurred however for the low share brands of the competition condition. The RL dropped from the 1 to 3 repetitions and then increased again at the 5 repetitions forming a U shaped pattern (see appendices 3 and 4). For instance, in the low share razor accessibility-competition condition (appendix 3), the RL at 1 repetition was 53.93 seconds, it then declined to 47.89 seconds at the 3 repetition condition, and then increased considerably at the 5 repetition condition to 61.59 seconds. The same pattern occurred for the low share shampoo accessibility-competition condition (appendix 4). As previously mentioned, one explanation for this is that low share brands are not as personally relevant as high share brands, and if they are repeated in the presence of higher share competitive brands, subjects may be confused by the competition or may feel threatened by it and will thus tune their attention away from the unpopular brand. Furthermore, one can say that at 5 repetitions, subjects had an abundance of information, especially since they had also been exposed to competitive brands. This abundance of information may have caused

confusion and thus lowered accessibility. Thus, H4b (more repetitions are required for low share brands so that they can be held with more accessible attitudes) was supported but only in the no competition condition. This is consistent with results such as those in the Berger and Mitchell study (1989, 1991) where response latency decreased drastically at the 4 repetition (high exposure) condition.

The results for the shampoo category proved a little more normal in the sense that the high share brands had lower response latencies than did the low share brands. However, one can also rationalize that Tame and Pantene have such a great difference in market share, that this was expected to occur. Once again, however, the ordering of the questions may have biased the results for Sensor and Wilkinson. It may have been preferable to have put a dummy product to answer the attitudinal measure as the first product or to have randomized the order of the attitudinal questions.

## **H5: THE EFFECTS OF ACCESSIBILITY AND CONFIDENCE ON BEHAVIOUR**

### **H5a : Attitude Confidence**

Hypothesis 5a claimed that attitudes which are more accessible are also held with more confidence. The following is a discussion of the findings and how they relate to this hypothesis.

Response latency can measure certainty and product behaviour in a wide variety of cases. Johnson (1939) showed subjects pairs of rods and asked which rod was longer. The closer in length the rods were, the longer the judgment time. Dashiel (1937) showed subjects pairs of colours and asked which colour they



preferred. The more strongly a subject preferred a colour, the faster it was chosen. Shipley, Norris, and Roberts (1946) also showed that response latency is correlated with certainty.

### **Confidence Reliability:**

Recall that in this study 2 measures of confidence were used - how certain subjects were of their evaluations and how confident they were of their evaluations. These 2 measures were combined into a single measure. A reliability analysis showed that the 2 scales had high internal consistency. Below are the alpha coefficients of the 2 confidence measures:

<u>Reliability Analysis</u>				
<u>Group</u>	<u>Sensor</u>	<u>Pantene</u>	<u>Wilkinson</u>	<u>Tame</u>
1	.9065	.9795		
2			.9936	.9780
3	.9500	.9695		
4			.9305	.9216
5	.9567	.9751		
6			.9605	.9747
7	.9395	.9685		
8			.9612	.9613
9	.8138	.9166		
10			.9640	.9836
11	.9109	.9857		
12			.9469	.9800

Except for group 9 (Sensor razor) all the other alpha coefficients were above 90%.

### Anova Results for Attitude Confidence:

The confidence hypothesis using repetition and brand share as the independent variables was tested through a series of ANOVA's for both the razor and the shampoo categories with and without competition. The following paragraphs will discuss the findings from the ANOVA's.

For the confidence of razors - competition condition, significant main effects were not found. In this case the F value was 1.951 and the level of significance was  $p=.123$ . The 2-way interaction of share and repetition was not significant ( $F=.047$  and  $p=.954$ ). Furthermore, significant effects of repetition alone on confidence were not found ( $F=.149$ ,  $p=.862$ ) but significant effects were found for brand share ( $F=5.660$ ,  $p=.018$ ). Sex as a co-variate was significant with an F value of 11.436 and a significance level of  $p=.001$ , but once again, repetition alone did not have significant main effects ( $F=.125$ ,  $p=.882$ ) but brand share did ( $F=11.830$ ,  $p=.001$ ). The 2 way interaction with sex as a co-variate was not significant. Due to the fact that sex as a co-variate was deemed significant, a separate ANOVA was then conducted for males and females. The main effects for male confidence were significant ( $F=5.041$  and  $p=.003$ ) but the 2 way interaction was not ( $F=1.150$  and  $p=.322$ ). The confidence of females for the razor category in the competition condition was not significant with main effects values of  $F=1.083$  and  $p=.361$ . As always, the 2 way interaction was insignificant.

For the confidence of razors in the no competition the main effects were significant ( $F=8.808$  and  $p=.000$ ) but the 2 way interaction of share and repetition was not ( $p=.174$ ). Both repetition and brand share alone had significant main effects.

The main effects of repetition had an F value of 7.385 and a p value of .001. The main effects of brand share had an F value of 13.428 and a significance value of  $p=.000$ . Having used sex as a co-variate showed significant results with an F value of 5.779 and a p value of .017. The significance values of repetition and brand share alone were the same as when sex was not used a co-variate. Even with sex as a co-variate, significant results for the 2 way interaction were not found ( $p=.223$ ). As was done in the above case, since sex as a co-variate was significant, an ANOVA was run separately for males and females. The main effects for both males and females were significant (F value for males = 6.744  $p=.000$ ; F value for females = 4.275  $p=.007$ ). The 2 way interactions for both males and females were insignificant (males :  $p=.627$ ; females :  $p=.759$ ).

For the confidence of shampoos in the no competition condition, the main effects were significant ( $F= 3.168$  and  $p=.025$ ) but the 2 way interaction was once again insignificant ( $p=.691$ ). Brand share had significant main effects on confidence ( $p=.003$ ) but repetition did not ( $p=.903$ ). This again goes to show that repetition did not have as big an influence in this study as was expected. It seems that most of the variation in this experiment was due to brand share differences. Once again, sex as a co-variate had significant results with an F value of 12.659 and a p value of .000. Repetition on its own had insignificant main effects ( $p=.785$ ) but brand share had significant effects ( $p=.004$ ). The 2 way interaction, even after having corrected for the differences due to gender, did not prove significant ( $p=.681$ ). The separate ANOVA's run for males and females showed that the results for males were significant but only at the .10 level of significance ( $F=2.083$  and  $p=.107$ ) but the

results for females were insignificant ( $F=1.164$  and  $p=.327$ ). For both males and females, the 2 way interactions were not significant (males:  $p=.872$  and females:  $p=.495$ ).

The last condition was shampoo confidence in the competition condition. The main effects in this condition were not significant and had an  $F$  value of 1.162 and a  $p$  value of .326. Repetition and brand share separately were also not significant. The  $F$  value for repetition was .550 and  $p$  was .578. The  $F$  value for brand share was 2.403 and its probability was .123. The 2 way interaction of share and repetition was not significant with an  $F$  value of 2.064 and a  $p$  value of .130. In addition, sex as a co-variate was not significant with an  $F$  value of .640 and a  $p$  value of .425. Therefore, since sex as a co-variate was not deemed significant the analysis correcting for differences due to the inequality of males and females was not pursued any further.

Thus, since sex obviously played a role in the variation of confidence as was seen in the majority of the analyses run by condition (preceding paragraphs), the remainder of the discussion on confidence will be based on the differences in confidence levels of both males and females.

#### **Discussion on Attitude Confidence:**

Attitude confidence was measured and graphed for both high and low share products and for both males and females. By observing appendix 7 (high share brand, Sensor, in the no competition condition), one can clearly see that males in general, throughout all 3 repetition conditions were more confident of how they answered on

the attitudinal measure for razors. This was expected because males do tend to have a broader knowledge of razors than females do. This is why two product categories, both razors and shampoos were chosen for the experiment - the razor category would be targeted to males and the shampoo category would be targeted to females. One finding was that the higher the latency, the lower the confidence (see appendix 1 and 7). This finding was consistent with previous studies because it has been found that the higher the latency, the lower the confidence. Thus, in this scenario H5a was accepted. Female and male confidence tended to remain stable throughout all three repetition conditions. Female confidence was at the mid-way point between certain and not certain and male confidence was closer to the very certain point. Male confidence was consistent with theory and hypotheses that at 1 and 3 repetitions both accessibility and confidence would be highest. It should be noted that a razor for a female is like a low share, unfamiliar brand for anyone else. A female generally does not know much about razors and thus razors are not personally relevant to them. Therefore, more time is required to comprehend and retain information from the commercials. The confidence results for both males and females are consistent with accessibility results. Notice from appendices 3 and 8 (accessibility and confidence graphs of razors in the competition condition) that the higher the response latency is for the high share brand, Sensor, the higher the certainty value (recall that on a scale of 1 to 9 the higher the certainty value, the lower the confidence). This is consistent with previous findings that more accessible attitudes are usually held with more confidence and less accessible attitudes are held with less confidence. Thus, H5a was once again accepted.

Appendices 9 and 10 show the confidence of both males and females for the low share razor category-for both the competition and no competition condition. Again, males were more confident than females. The confidence level for males was stable throughout all 3 exposure conditions. Female confidence however, increased at the 5 repetition condition in the competition condition only (appendix 9). In this case however, the confidence results when compared to accessibility showed inconsistent findings from those of previous studies. For instance if one looks at appendix 3 and appendix 9 one will notice that as latency declines for the low share brands, the certainty value increases (thus confidence decreases). The same pattern occurs in the no competition condition. Appendix 1 and 10 demonstrate that for the low share brand, Wilkinson, as latency increases, the certainty value decreases (meaning that confidence increases). This shows that respondents need more time to process information of low share brands, otherwise they will not be as confident of their answers. Thus, in this case H5a was not accepted.

Appendix 11 (attitude confidence for the razor category-no competition condition) shows that in general people are more confident in their attitudes of high share brands. Once again for the high share brands in comparison with latency (appendices 1 and 11), one can see that the higher the latency of Sensor, the higher the certainty value (thus the lower the confidence). The opposite pattern occurred for the low share brand when compared to response latency. For the low share brand, as mentioned above, as the latency increased, the confidence also increased.

Confidence for the razor category-competition condition (appendix 12), showed that respondents were more confident in their answers for the high share brand,

Sensor, than for low share brand, Wilkinson, and that confidence correlated with accessibility. Notice from appendix 3 and 12 that for the high share brand, Sensor, as the latency decreased, the confidence increased (consistent with theory) but for the low share brand, as latency decreased, confidence decreased. Thus, for the razor category H5a was accepted for high share brands but not for low share brands.

For the shampoo category-no competition condition (appendix 13), we once again see that confidence is higher for the high share brand, Pantene, than for the low share brand, Tame. As for the low share brand, confidence increased slightly at the high exposure level. This is consistent with theory that low share brands need the added exposures because people are not motivated to process the ads initially and require more time to retain information from the ads. The certainty value for shampoo category-no competition is related to latency. Notice in appendix 2 that the latency for high share product increases slightly from 1 to 3 repetitions and then increases slightly again from the 3 to 5 repetitions. A similar pattern occurs for confidence (see appendices 2 and 13). Thus as latency increases, the certainty value also increases (i.e., confidence decreases). As for the low share brand, latency increases from the 1 to 3 repetitions and then decreases again from the 3 to 5 repetitions. The same pattern occurs with the confidence (see appendices 2 and 13). In this case, H5a was accepted.

The attitude confidence of males versus females-no competition-low share condition graph (appendix 14) shows that for shampoos it was the females that had more confidence in their attitudes - the opposite findings of those from razor category. Furthermore, both males and females were most confident at the 5 exposure level for

the low share brand, agreeing with the theory that low share brands generally need more exposure levels for more accessible and confident attitudes. These findings are also related to the latency findings that show that the higher the latency, the higher the certainty value (thus lower confidence). This is consistent with previous findings that more accessible attitudes are also held with more confidence and certainty (see appendices 2 and 14). Again, H5a was accepted.

The graph portraying attitude confidence of both males and females for the shampoo category-no competition-high share condition (appendix 15), shows that again, females are more confident of their attitudes towards shampoos than males are. However, female confidence declines minimally as exposure increases. This could be because, as mentioned before, high share brands do not require high levels of exposure, otherwise aversive tension sets in, and also because, not only is the shampoo a high share brand, but it is a predominantly female product, thus requiring less exposure levels for the message to get across. For males, the confidence level was pretty stable throughout all 3 exposure levels. The results for both males and females are consistent with latency for Pantene in that both latency and confidence remain at a plateau throughout all three exposure levels (see appendices 2 and 15). H5a was once again accepted. Thus, for the shampoo category there was always correlation of latency with confidence. The confidence of the shampoos in the competition conditions were not graphed and will not be discussed since insignificant main effects were found in the analysis of variance. However, a correlation analysis of latency with confidence (discussed in the next section) shows that for the shampoo category in the competition condition, there was a significant correlation of latency with confidence



for Pantene but not for Tame. Thus, for the competition condition, H5a was accepted for the high share Pantene shampoo but not for the low share Tame shampoo.

#### **Correlations of Latency with Confidence:**

In previous research it has been argued that generally more accessible attitudes are held with more confidence. Thus, this means to say that as latency decreases confidence increases. This was generally the case in this study. However, it was not sufficient to just compare graphs. The findings had to be statistically proven. Appendix 16 shows the correlation coefficients for all the target brands in all the conditions. Except for Wilkinson and Tame in group 1, and Wilkinson in groups 6 and 10, all the other correlation coefficients were positive, meaning that subjects held their attitudes with more confidence as accessibility increased (i.e., latency decreased). Recall, that the higher the certainty value, the less confident the subjects were (i.e., the scale ranged from 1=very confident to 9=not confident). Thus, as latency increased, the certainty value also increased, meaning that the confidence decreased. In the cases where the opposite effect took place (i.e., confidence increased as latency also increased), this occurred in the competition conditions for the low share brands as previously mentioned (see cells 1,6 and 10 in appendix 16). What is believed to have occurred here is that people needed the extra time to process their thoughts because they saw competitive ads and thus this extra time allowed them to be certain of their evaluations. Appendices 3 and 12 show that for the low share Wilkinson razor subjects took less time to answer the attitudinal measure (appendix 3) but they were also less confident of their answers (appendix 12). Subjects took more time to

respond to the attitudinal measure for the high share Sensor razor but subjects were also more confident of their evaluations. Furthermore, notice from appendices 3 and 12 that for Wilkinson at the 3 repetition condition the response latency was at its lowest level (i.e., accessibility was the highest) and then notice again from appendix 12 that at the 3 repetition condition where response latency was at its lowest that confidence was at its highest level.

In the shampoo category, no competition condition, Tame shampoo, the low share brand, had higher response latencies (appendix 2) than Pantene but was held with less confidence (appendix 13). Once again, this was consistent with previous findings that the higher the attitude accessibility (lower latency) the more confident subjects are of their attitudes. In addition, the latencies for Pantene, the high share brand, is at a plateau throughout all 3 repetition conditions and that the confidence level (appendix 13) is also at a plateau at the 1,3,and 5 repetition conditions.

Appendix 16 also shows that significant correlations between latency and confidence was found in only half of the cases. However, despite the fact that significance was not found in all the cells, most of the cells at least had the correlation coefficients going in the right direction (i.e., positive values).

Due to the fact that sex as a co-variate was significant in the analyses run for confidence for the different conditions, a second correlation analysis of latency with confidence was run controlling for the variance that may have been caused by sex (see appendix 16a). There was not a great difference from the correlations of latency with confidence in appendix 16. Basically, the same cells that had significant p values before using sex as a co-variate, were significant when controlling for sex. In addition,

the same cells that had negative values before had negative values after sex was accounted for. Thus, controlling for the differences due to gender did not seem to make a noticeable difference in this case.

The correlations basically reconfirmed the findings mentioned above. Notice that in the same scenarios where H5a had been accepted (prior to having conducted the correlation analysis), it was in these same cells that there were statistically significant results of correlation (see appendices 16 and 16a). Furthermore, notice from appendix 16 and 16a that Wilkinson had significant probabilities but they were negative correlation coefficients, and thus going in the wrong direction. Thus, H5a was not accepted for the Wilkinson razor.

#### **H5b and H5c: Degree/Strength of the Attitude-Behaviour Relationship**

##### **Behaviour Reliability**

Like in the confidence situation, two measures of behaviour were also used - a subject's likelihood of buying and a subject's intention of buying. Again, the two measures were combined but first a reliability analysis was conducted to verify for internal consistency.

### Reliability Analysis

<u>Group:</u>	<u>Sensor</u>	<u>Pantene</u>	<u>Wilkinson</u>	<u>Tame</u>
1	.9413	.9855		
2			.7297	.9664
3	.9280	.9623		
4			.7288	.9650
5	.9366	.9081		
6			.8579	.8496
7	.7792	.9340		
8			.8607	.9280
9	.8296	.9445		
10			.8971	.9242
11	.9285	.9665		
12			.8435	.9366

The reliability results for the behavioral measures were not as high as those for confidence but the alpha coefficients were still quite good. The alpha's for Sensor were all above 90% except for group 7 and 9 (77.9% and 82.96%). Pantene's alphas were all above 90% and so were Tame's except for group 6 (84.96%). The lowest alphas were for the Wilkinson razor whose majority of coefficient alphas were above 80% except for group 2 and 4 (72.97% and 72.88%). All in all, the behaviour reliability was still quite good therefore the 2 measures were combined into one.

### ANOVA Results for Behaviour by Share by Repetition

Analyses of variance for behaviour were conducted to verify if the experimental manipulations of share and repetition had significant main effects.

The ANOVA run for purchase intention of razors in the competition condition showed that sex as a co-variate was not significant ( $F=.176$ ,  $p=.675$ ). The main effects were significant with an F value of 34.885 and a p value of .000. Brand share

when analyzed separately was significant ( $F=98.831$ ,  $p=.000$ ) but repetition with competition was only significant at the  $p=.10$  level of significance ( $F=2.605$ ,  $p=.077$ ). The 2 way interaction was also significant at the  $p=.10$  level of significance ( $F=2.671$ ,  $p=.072$ ).

For the purchase intention of shampoos in the competition condition, sex as a co-variate was significant with an F value of 7.649 and a p value of .006. The main effects of repetition and brand share were significant with an F value of 17.049 and a p value of .000. On a separate level, share alone was significant ( $F=47.880$ ,  $p=.000$ ) but repetition with competition was again significant only at the .10 level of significance ( $F=2.596$ ,  $p=.007$ ). Since sex as a co-variate was significant, an ANOVA was also run for both males and females separately. The ANOVA for males had significant main effects of share and repetition ( $F=5.815$ ,  $p=.001$ ). Brand share on its own was significant ( $F=13.774$ ,  $p=.000$ ) but repetition was not ( $F=1.610$ ,  $p=.205$ ). The 2 way interaction was also not significant ( $F=.686$ ,  $p=.506$ ). The ANOVA run for females had significant main effects for share and repetition ( $F=13.143$ ,  $p=.000$ ). Brand share was significant with an F value of 38.237 and a significant probability of .000, but repetition with competition was not significant ( $F=.529$ ,  $p=.591$ ). The 2 way interaction was significant and had an F value of 5.688 and a p value of .005.

The ANOVA run for the purchase intention of razors in the no competition condition showed that sex as a co-variate was significant with an F value of 7.389 and a p value of .007. The main effects were also significant and had an F value of 40.909 and a significant probability of .000. Both share ( $F=118.404$ ,  $p=.000$ ) and repetition ( $F=3.763$ ,  $p=.025$ ) were significant. The 2 way interaction, however, was not

( $F=1.546$ ,  $p=.215$ ).

Once again, since sex as a co-variate was deemed significant separate ANOVA's were run for males and females. The ANOVA run for females demonstrated that the main effects of repetition and brand share were significant and had an F value of 14.958 and a p value of .000. Both share ( $F=38.436$ ,  $p=.000$ ) and repetition ( $F=4.982$ ,  $p=.009$ ) were significant when analyzed separately. The 2 way interaction was only significant at the  $p=.10$  level of significance ( $F=2.688$ ,  $p=.073$ ). The ANOVA run for males had significant main effects of share and repetition ( $F=35.341$ ,  $p=.000$ ). Brand share by itself was significant ( $F=103.290$ ,  $p=.000$ ) but repetition was not ( $F=2.041$ ,  $p=.135$ ). The 2 way interaction had a weak probability of  $p=.060$  ( $F=2.893$ ).

The ANOVA conducted for the purchase intentions of the shampoo category in the no competition condition showed that once again, sex had a weak role in the variation of behavioral differences. Sex as a co-variate had an F value which was significant only at the .10 level of significance ( $F=3.299$ ,  $p=.071$ ). The main effects of share and repetition were significant with an F value of 23.600 and a significant p value of .000. Both brand share ( $F=65.780$ ,  $p=.000$ ) and repetition ( $F=3.794$ ,  $p=.024$ ) when analyzed alone were significant. The 2 way interaction, however, was not ( $F=.881$ ,  $p=.416$ ). Since sex as a co-variate was deemed significant the ANOVA's for males and females were looked at separately. The ANOVA for males demonstrated that the main effects of share and repetitions were significant and had an F value of 11.962 and a p value of .000. Brand share by itself was significant ( $F=33.404$ ,  $p=.000$ ) but repetition was not ( $F=1.547$ ,  $p=.217$ ). The 2 way interaction,

with an F value of 2.234 and a p value of .112 was not significant. The ANOVA conducted for females also had significant main effects for both share and repetition ( $F=11.781$ ,  $p=.000$ ) and for brand share on its own ( $F=32.758$ ,  $p=.000$ ). Repetition on its own had a weak significance probability ( $F=2.567$ ,  $p=.081$ ). The 2 way interaction was not significant.

#### **Discussion of Findings on Behaviour from ANOVA's**

Appendix 16b for purchase intentions of razors in the competition condition shows that repetition actually had a detrimental effect on behaviour for the low share brands. Notice that the purchase intention of Wilkinson decreased from the 3 to 5 repetitions. The purchase intention for the high share brand, Sensor, however was positively affected by repetition in that the likelihood of buying the product kept increasing throughout the 3 repetition conditions. Note, that appendix 16b (razor purchases with competition) was the only condition that was not analyzed separately for males and females because as mentioned in the previous section, sex as a co-variate was not significant for the razor category with competition.

Appendix 16c shows the purchase intentions of males for shampoos in the competition condition. Once again, repetition had a detrimental effect on the purchase intention of the low share, Tame, brand because the likelihood of buying just kept decreasing throughout the 3 exposure conditions. On the other hand, repetition helped enhance purchase intention for the high share brand.

Appendix 16d shows the pattern of the purchase intention of females for the shampoo category with competition. Once again, the purchase intention for the low share brand, Tame, kept decreasing throughout the 3 repetition conditions but the

purchase intentions for the high share, Pantene, brand kept increasing. It's almost as if the presence of competition enhanced the attitudes that people hold of their familiar brand.

The graph demonstrating the likelihood of buying of males for razors in the non competitive environment (appendix 16e) had different results from those mentioned above. Apparently, repetition increased purchase intentions for the low share brand (kept increasing throughout all 3 exposure conditions) but had a detrimental effect on the intentions for the high share brand (kept decreasing throughout all 3 exposure conditions).

Appendix 16f portrays the purchase intentions of females for the razor category in the no competition condition. The purchase intentions for the low share product kept increasing throughout all 3 exposure conditions but the intentions for the high share brand took on an inverted U shape pattern - i.e., the likelihood of buying first increased then decreased from the 1 to 3 and from the 3 to 5 repetition conditions.

Appendix 16g, the likelihood of purchase for males for the shampoo category in the no competition condition, showed that the low share brand had an inverted U shape pattern and the purchase intention for the high share brand just kept decreasing throughout the 3 repetition conditions. The likelihood of purchase intentions for females for the shampoo category in the no competition condition had the same pattern as that of the males for both the low and high share brand.

Therefore, as can be seen from appendices 16b to 16h there is a similar pattern in all the cases. In terms of the low share brands for the razor category in the



no competition condition whose purchase intentions increased with added repetitions, all the other conditions showed that repetition had a detrimental effect on the purchase intention for the low share brands. The likelihood of buying these brands either kept decreasing or increased from the 1 to 3 repetitions but decreased again from the 3 to 5 repetitions (inverted U shape). As mentioned in the literature review, mostly all relevant literature on advertising repetition has shown that continued repetition beyond that necessary for initial learning leads to boredom or satiation and repeated exposure produces negative affect towards the stimulus. Furthermore, the findings of this study show that advertising low share brands is really not beneficial. Tellis (1988) claimed that only coupons, instant rebates etc. can make people try a different brand. Advertising does not have an effect on loyalty or brand purchase. It is loyalty and prior satisfaction of a purchased brand that has an effect on the success of an advertisement. Brand awareness may serve as a dominant choice tactic among inexperienced consumers presented with a brand selection task. Since advertising effectiveness can differ by consumer familiarity, a brand with a relatively small core of loyal buyers may not find it profitable to imitate the advertising strategy of another brand with a larger franchise. This is why in this study purchase intentions decreased for the low share brands in the competition conditions but increased for the high share brands. Furthermore, Hoyer and Brown (1990) found that brand awareness has a considerable effect on consumer choice. Subjects who were aware of one brand in a set of 3 sampled fewer brands over a series of 4 trials and were considerably less likely to select the high quality brand on a final choice than subjects who were not aware of the brands in the set. Furthermore, subjects who are aware

of 1 brand in a choice set tend to choose the known brand.

In terms of the high share brands, it was found that in the competition conditions, repetition significantly affected brand purchase intention but in the no competition condition, the pattern of purchase intention was either a negatively sloped line (decreasing) or an inverted U shape (decreasing at high exposure level). What was possibly happening here is that the competitive environment (advertising a lower share brand in close proximity to the more popular, familiar brand) re-enforced attitudes and purchase intentions of the popular brand. It has been proven in previous studies that consumers are generally more likely to attend to an ad of a high share brand which is personally relevant to them. Pechman and Stewart (1990) claimed that consumers would not be interested in low share brands which they would be unlikely to purchase, so they tend to ignore ads in which low share brands are compared with high share brands that they are likely to purchase. In the no competition condition, where there was not an ad of another brand of the same product category, there was no threat of a competitive brand challenging the attitudes and previous purchases of subjects. The lack of a competitive brand allowed subjects to elaborate on the message much quicker. Thus, tedium and disliking occurred at the high exposure level due to over exposure of the ad and to stimulus habituation.

#### **H5b: Relationship between Attitudes, Confidence, and Behaviour:**

Hypothesis H5b considered the effects of the experimental manipulations on the degree of the relationship between attitudes, confidence and behaviour. This hypothesis was developed to test whether attitudes which are held with more

confidence moderate the strength of the a-b relationship.

To test the degree hypothesis, the extent to which each individual's attitudes were related to his/her choice of shampoos/razors were tested with correlations analyses. The table in appendix 17 gives the results of the attitude-behaviour correlations by condition controlling for the gender differences. Note that when the ANOVA's for behaviour by share by repetition were run, there was a significant difference among males and females. Therefore, all the analyses of correlations that are conducted for the dependent variable, behaviour, control for the variation which may be due to the differences in gender. An examination of the a-b correlations indicate that all the coefficients had positive values, meaning that as attitudes got better, the purchase intention also increased. This was consistent with the hypothesis and previous findings. Furthermore, appendix 17 shows that in all of the cells (except for cell #1 for the Wilkinson razor in the competitive condition) for both the high and low share brands, significant correlations were found between attitudes and behaviour.

Another test conducted for H5b was the correlation of confidence with behaviour (appendix 18) using sex as a co-variate. Notice from appendix 18 that the direction of the coefficients for the high share brands was always negative. This means to say that as confidence increased (recall that the higher the certainty value, the lower the confidence) so did the likelihood of purchasing the product. Furthermore, significant probabilities were found for the high share brands in all the cells. Thus, H5b which stated that attitudes which are held with more confidence have a greater effect on the attitude-behaviour relationship, was accepted here for the high

share brands.

As for the low share brands, appendix 18 demonstrates that in cells 1,4, and 6 that the correlation coefficients first start out as being positive (meaning that as confidence decreases, the likelihood of behaviour increases). This was a strange, unexplainable finding, however, the results changed in cells 8, 10, and 12. The correlation coefficients in these cells are negative and significant probabilities were only found in the 5 repetition condition. Thus, keeping all this in mind, H5b is only supported for the high share brands.

#### **H5c: The Correlation of Attitude Accessibility with Behaviour:**

To test H5c a correlation of latency with behaviour was conducted to see if at least accessibility was more correlated with behaviour. It was hypothesized that attitudes that were more accessible would be more predictive of behaviour. These results showed that there were fewer cases than expected where the probability that latency correlated with behaviour was significant. Some of the significant results were Sensor and Pantene in cells 3,7, and 11 (the no competition conditions), Wilkinson in groups 8 and 12 (the no competition conditions) and Tame in group 12 (the no competition condition). However, the correlation coefficients were all negative numbers meaning that as latency increased, behaviour decreased. This, at least was consistent with theory. See appendix 18a for the correlations of latency with behaviour. Thus, H5c was only supported for the no competition condition. The lack of support for this hypothesis leads one to conclude that different object experiences probably cause differences in the qualitative dimensions of attitudes. For instance,

notice that the majority of the significant probabilities of the correlations between latency and behaviour were found in the no competition conditions. This could be because attitudes in a non-competitive environment are held with more clarity. In addition, it is important to note that Fazio et al (1982) also found large differences in attitude accessibility as a result of repeated attitudinal expression, but that these differences in accessibility did not result in significant differences in the attitude-behaviour relationship.

In this study too, one inconsistency with the a-b correlations in comparison with accessibilities is that there may have been major differences in correlation coefficients where there were only minimal differences in response latency. For instance, by looking at appendix 1 for the Sensor razor, one will notice that the response latency changes minimally throughout all 3 repetition conditions. Next, appendix 17 shows that the correlation coefficient for the Sensor razor in the no competition condition goes from .2987 to .6131 to .6292. The difference between the correlation coefficients between the 1 and 3 repetition conditions is large. The same effect occurs for Pantene in the no competition condition. Latency for Pantene in the no competition condition was stable throughout all three exposure conditions (appendix 2) yet the a-b correlations go from .6877 to .5381 to .8868. Notice the large difference in correlations from the 3 to 5 repetitions. Also, refer to appendix 3 and notice how the latencies for Sensor in the competition condition are at a plateau from the 3 to 5 repetitions but Sensor's a-b correlation coefficients go from .2618 to .4961 from the 3 to 5 repetitions. However, Fazio and his colleagues have fairly consistently found differences in a-b correlations near at least .30. Notice that in this experiment

differences of this magnitude were found without any difference in attitude accessibility.

Finally, to explain why hypothesis 5c did not have the statistical correlations expected for behaviour, one must recall that the Fazio et al (1982) evidence regarding the moderating influence of attitude accessibility was weak. The differences of a-b correlations between single exposures and repeated exposures only approached significance at  $p=.11$  despite the fact that there were large differences in accessibility.

In conclusion, H5c was supported only for the no competition condition.

## **H6: ATTITUDES:**

### **Reliability of Attitude Measures**

It was mentioned previously that attitudes were measured by using 12 Likert type scales of bi-point adjective pairs such as good-bad, like-dislike, ordinary-beneficial etc. These 12 measures were merged and the mean attitude scores were obtained for each person in each group. However, it was important to examine the effects of the experimental manipulations on the attitude scores. Two issues are paramount regarding the evaluations: whether the measure of the attitudes was reliable and whether the cells differed in terms of the attitude scores. It is important that attitudes be measured with equal reliability across conditions, since differential reliability can cause differences in the strength of the relationship between the two variables.

<u>Group:</u>	<u>Sensor</u>	<u>Pantene</u>	<u>Wilkinson</u>	<u>Tame</u>
1	.8696	.9393		
2			.8822	.9125
3	.8953	.9150		
4			.9505	.9339
5	.9510	.9385		
6			.9246	.9015
7	.8874	.9104		
8			.8689	.9406
9	.8577	.9049		
10			.9398	.9455
11	.9377	.9617		
12			.9300	.8099

Judging from the above table, the Cronbach alpha results are quite high. Except for Tame in group 12 with an alpha coefficient of .8099, all the other alpha coefficients were above 85%. Therefore it was safe to assume that one could merge the 12 attitudinal measures into one attitude and measure the response latency on that one attitude.

In general, it was concluded that attitudes were measured with a high level of internal reliability and that there were no real differences in reliability between conditions.

The main effects from the ANOVA's that were conducted for attitudes were significant. The main effects for razors by share and by repetition in the no competition condition were significant with an F value of 13.177 and a p value of .000 but the 2 way interactions was not significant with an F value of .520 and a p value of .595. The main effects for shampoo attitudes by share and by repetition (no competition) were also significant with an F value of 29.513 and a p value of .000.

The 2 way interaction was also significant with an F value of 6.137 and the p value of .003. The main effects for the ANOVA's that were conducted for attitudes for the 2 product categories in the competition condition also had significant main effect. The main effects for razors had an F value of 22.029 and a significance of  $p=.000$ . The 2 way interaction was not significant and had an F value of .859 and a p value of .425. The main effects for shampoos was significant and had an F value of 33.353 and a significant p value of .000. The 2 way interaction was again not significant with an F value of .629 and a p value of .534.

Hypothesis #6 stated that evaluations for:

- a) high share brands will be lower in the presence of competing low share brands because confusion with an unpopular brand may lower evaluations
- b) low share brands will be higher in the presence of competing high share brands because confusion with a more popular brand may raise evaluations.

In this study H6 was wholly supported. Notice that for the high share brands (both razors and shampoos) attitudes were lower (or practically the same) in the competition condition than in the no competition condition. Next, for the low share brands, attitudes were higher in the competition condition than in the no competition condition (see appendices 19, 19a, 20, 20a).

### **Attitudes in the No Competition Condition**

Appendices 19 and 20 clearly show that attitudes were much higher for the high share brands Pantene and Sensor throughout all three exposure conditions than they were for the low share brands. Calder and Sternthal's (1980) study on television



commercial wearout indicated that the repetition of ads led subjects to a more positive evaluation for familiar brands but to a more negative evaluation for unfamiliar brands. Secondly, attitudes for both the high and low share brands became less favourable at the high exposure condition and had an inverted U shape curve.

The findings are also consistent with early theoretical research on the effects of exposure frequency which concentrated on the relationship between "mere exposure" and liking (Zajonc, 1968). Though it was discovered that increased exposure to simple, unfamiliar stimuli (eg. Japanese idiograms) increased liking in a variety of settings (see Caccioppo and Petty, 1979) exposure frequency often led to only initial increases in liking with subsequent decreases (Saegert and Jellison, 1970; Smith and Dorfman, 1975; Harrison and Crandall, 1972). Many studies reported that attitudes changed positively over some moderate range of message repetitions (usually 3 to 4), then declined following subsequent repetitions. Caccioppo and Petty (1979) argued that message repetition provides individuals with the opportunity to elaborate cognitively on the message arguments, realize their cogency and favourable implications and thereby positively influence their attitudes. At high levels of exposure, however, tedium and/or reactance may motivate the individual to attack the message, counter argue and thereby negatively influence their attitudes. Corlette (1984) and Schumann (1983) found that attitudes changed very little over moderate ranges of repetition (1-4), but decreased dramatically at high exposure levels (5-8). Notice, however from appendices 19 and 20 that attitudes decline much more drastically for the high share brands at the 5 repetition condition than they do for the low share brands. In this study, the attitudes for the low share brands didn't decline

as much at the 5 repetition condition because the extra elaboration was needed due to the fact the subjects didn't know much about the product beforehand. It is possible that individuals already know enough information about high share brands and that they are able to acquire all the relevant information about an object and form evaluations of that object on the first message exposure. Subsequent exposures (over some moderate range which is less than tedium inducing) then serve to simply activate the object and perhaps its evaluation in memory, thereby strengthening the object - evaluation association. Message repetition in this case is not expected to change attitudes but merely increase their accessibility from memory. If anything, over-exposure of information that consumers already know (familiar products) leads to tedium and an aversive reaction to attitudes.

Miller (1976) found that moderate exposure led to significantly more positive attitudes toward the recommendation than did high exposure.

### **Attitudes in the Competition Condition**

By looking at appendix 19a, the first thing to be noticed is that attitudes for the high share brand (Sensor) are higher than for the low share brand (Wilkinson) despite the fact that when we were measuring accessibility, response latency was lower for Wilkinson than it was for Sensor (meaning that people had more accessible attitudes for Wilkinson). According to Bird and Ehrenberg, a major factor why one brand is rated higher than another seems to be its different usage level or market share. Therefore, one may conclude that whether people say that a brand has a given attribute generally depends on whether they buy the brand. Purely evaluative

measures of attributes discriminate between users and non-users. Therefore, in this case, notice from appendices 19a and 20a, that the more popular brands are always held with better attitudes. Since a big brand has more users, a larger proportion of the population will say it has the attribute than for a small brand.

In addition, another finding was that attitudes for razors in the competition condition have similar findings as razors and shampoos in the no competition condition in that the pattern of evaluations was an inverted U shaped curve for both Sensor and Wilkinson.

As in previous findings in this study, it turned out that for both the high share and low share brands, there was no added benefit in increasing repetitions in order to increase attitudes. For both the high share and low share brands, there was not much of a difference in mean attitude scores from the 3 to 5 repetition conditions.

Appendix 20a (attitudes for shampoos in the competition condition) demonstrates similar results as in appendix 19a for razor attitudes in the competition condition. Once again, Pantene is held with better attitudes than Tame but in this case, attitudes for Pantene decline slightly from the 1 to 3 repetition conditions, and increase again slightly from the 3 to 5 repetition conditions (U shaped pattern). Attitudes for Tame just kept increasing minimally in each exposure condition. It was expected with the 5th repetition that boredom would set in and attitudes would decrease. In fact, in the competition condition for the shampoo brands, the opposite appears to have happened. This is consistent with the Berger and Mitchell findings (1989). The researchers expected attitudes to decline in the 4th repetition condition but the opposite took place. However, in general, for both Tame and Pantene,

attitudes remained practically constant throughout all 3 exposure conditions meaning that repetition did not really change evaluations.

The fact that repetition did not drastically change attitudes in any of the conditions (appendices 19, 19a, 20, 20a) is consistent with early theoretical research on the effects of exposure frequency. Zajonc (1968), discovered that increased exposure of simple, unfamiliar stimuli (eg., Japanese idiograms) increased liking in a variety of settings. Exposure frequency often led to only initial increases in liking with subsequent decreases (see Saegert and Jellison, 1970, Smith and Dorfman, 1975, Harrison and Crandall, 1972). Notice from appendix 19 and 20 (no competition condition) that attitudes have taken on an inverted U shape pattern throughout the exposure conditions which is consistent again with many previous findings. Caccioppo and Petty (1979), argued that the reason attitudes changed positively over some moderate range and then declined following subsequent repetitions is because repetition provides individuals with the opportunity to elaborate cognitively on the message arguments, realize their cogency and thereby positively influence their attitudes. At high levels of exposure, however, tedium and/or reactance may motivate the individual to attack the message and negatively influence attitudes. Within this paradigm, researchers that have done marketing research have been unable to explain a common finding. Advertising frequency has often been found to positively influence awareness and behavioral measures, while having little or no influence on attitudinal measures (see Ray et al, 1973, Sawyer 1971, Mitchell and Olson, 1977 and 1981). This is what has happened in this study. Repetitions influenced both latency and behaviour yet seemed to have little effect on attitudes.

Apparently, however, there was a statistical relationship between an individual's attitude score and his/her behaviour consistency (discussed previously). The differences in attitudes, therefore, could explain the differences in the degree of the relationship between attitudes and behaviour.

Bizarre findings were found between the attitude scores and the attitude accessibility scores. See appendix 21 for the coefficient alphas in each cell. Notice that for the high share brands all the correlation coefficients were negative numbers and indicated that these 2 variables moved together in the direction expected (i.e., as latency increased, attitudes decreased). Apparently, as attitudes became more positive, accessibilities increased and vice versa. However, significant correlation coefficients for the high share brands at the .10 level of significance, were found mostly in the competition conditions (except for Pantene in cell 7 no competition condition). This could be explained by the fact that the exposure of a competitive lower share brand just re-enforced people's attitudes of the high share brand and thus made attitudes better and more accessible.

In the low share group, significance of the correlation coefficient was only found in the no competition conditions (see cells 4,8 and 12 in appendix 27). Once again, because there was no competition of a better known brand, this allowed subjects to pay attention to and to elaborate on the low share brand thereby increasing attitudes and accessibility.

Finally, one strange finding was that as repetitions increased the pattern of the low share brands took the opposite direction - the correlation coefficients were positive numbers meaning that as attitudes increased so did latency (see cells 8,10,

and 12). Once again, subjects may have required extra processing time for low share brands to make their attitudes towards these brands more accessible.

#### **Open Ended Measure of Attitudes:**

A second measure of attitudes conducted in this study was an open-ended question which asked respondents to state the facts and characteristics that they believed to be true and applied to the 4 target brands (see questionnaire in appendix). A list of all the facts and characteristics is presented in the appendix 20ai. At least 100 facts and characteristics were mentioned by subjects for the razor and shampoo categories and these responses were then grouped into approximately 25 more general answers. For instance, the attributes "washes hair well" and "leaves no greasy residue" were both grouped under "good performance".

An ANOVA was then conducted for the good and bad attributes of the shampoo and razor categories with and without competition.

The first ANOVA was conducted for razors in the no competition condition for good characteristics mentioned. Sex as a co-variate was not significant with an F value of .188 and a p value of .665. The main effects of both share and repetition were significant with an F value of 29.893 and a p value of .000. Both share and repetition when analyzed separately were also significant. The F value for brand share was 82.120 and its p value was .000. Repetition had an F value of 3.497 and a significant p value of .032. The 2 way interaction was not significant with an F value of 1.482 and a p value of .229.

The next ANOVA was conducted for razors for which bad characteristics were stated in the no competition condition. Again, sex as a co-variate was not significant

with an F value of .067 and a p value of .796. The main effects were significant with an F value of 6.156 and a p value of .000. When analyzed on a separate level, both share and repetition were significant. The F value for brand share was 11.272 and its significant value was  $p=.001$ . Repetition had an F value of 3.716 and a p value of .026. The 2 way interaction was not significant with an F value of .597 and a p value of .551.

The ANOVA conducted for the good characteristics mentioned in the shampoo category (no competition) demonstrated that sex as a co-variate was significant with an F value of 7.745 and a p value of .006. The main effects of repetition and brand share were significant and had an F value of 18.254 and a significant p value of .000. Repetition alone was not significant ( $F=.555$  and  $p=.575$ ) although brand share was ( $F=54.421$  and  $p=.000$ ). The 2 way interaction was not significant and had an F value of .224 and p value of .800.

The ANOVA conducted for shampoos for which bad characteristics were mentioned in the no competition condition, demonstrated that sex as a co-variate was not significant and had an F value of 2.418 and a p value of .121. The main effects of share and repetition were significant ( $F=4.454$ ,  $p=.005$ ). Brand share was also significant when analyzed separately ( $F=11.078$ ,  $p=.001$ ) but repetition was not ( $F=1.287$ ,  $p=.278$ ). The 2 way interaction was not significant and had an F value of .371 and a p value of .690.

The next 4 ANOVA's were conducted again for the good and bad characteristics mentioned for both the razor and shampoo categories in the competition condition.

For the good attributes mentioned for razor category in the competition condition, sex as a co-variate was not significant and had an F value of .464 and a p value of .497. The main effects of repetition and share were significant with an F value of 30.393 and a p value of .000. Share alone was significant with an F value of 87.735 and a p value of .000, but repetition with competition by itself was not significant and had an F value of 1.164 and a significant p value of .314. The 2 way interaction was not significant ( $F=.880$  and  $p=.416$ ).

The ANOVA for bad characteristics of razors in the competition condition showed that sex as a co-variate was significant with an F value of 6.273 and a p value of .013. The main effects were significant and had an F value of 5.123 and a p value .002. Brand share alone was significant ( $F=8.895$  and  $p=.003$ ) but repetition was significant only at the .10 level of significance ( $F=2.846$  and  $p=.061$ ). The 2 way interaction was significant and had an F value of 3.344 and a p value of .037.

The ANOVA for good characteristics of shampoos in the competition condition showed that sex as a co-variate was significant ( $F=6.891$   $p=.009$ ). The main effects of share and repetition were significant ( $F=28.500$  and  $p=.000$ ). On a separate level, share alone was significant ( $F=81.563$  and  $p=.000$ ). Repetition by itself with competition was not significant and had an F value of 1.840 and a p value of .162. The 2 way interaction was not significant ( $F=1.967$ ,  $p=.143$ ).

The final ANOVA was for the bad characteristics of shampoos in the competition condition. Sex as a co-variate was significant at the  $p=.10$  level of significance ( $F=2.942$ ,  $p=.088$ ). The main effects were significant with an F value of 12.243 and a p value of .000. Share alone was significant with an F value of 36.475



and a p value of .000, but repetition with competition alone was not significant and had an F value of .364 and a p value of .695.

#### **Discussion on Subjects' Good/Bad Thoughts of Target Brands:**

A very interesting finding in this study was that in both the competition and no competition conditions, subjects generally had more total good for the high share brands and more total bad thoughts for the low share brands (see appendices 20B-20I). For instance, look at appendix 20B for the good attributes mentioned for razors in the no competition condition. Notice that the average number of good characteristics mentioned for Sensor was higher than for Wilkinson and it kept increasing minimally from one repetition to the next. The average number of good characteristics mentioned for the low share Wilkinson brand increased from the 1 to 3 repetitions and declined again from the 3 to 5 repetitions. As for the bad attributes mentioned for razors in the no competition condition, Wilkinson had more total bad thoughts and the average number of bad attributes mentioned kept increasing substantially throughout all 3 repetition conditions. The bad attributes mentioned for the high share brands also increased throughout the 3 repetition conditions but not as drastically as for the low share brands. In both the competition and no competition conditions, there were less bad thoughts for the high share brand than for the low share brand, and more good thoughts for the high share brand than for the low share brand.

The fact that subjects had more good things to say about the high share brands and more bad things to say about the low share brands is consistent with Ehrenberg's,

Goodhart's and Barwise's (1985) findings. They asserted that small brands generally attract less loyalty because they are small and have lower market shares. The main finding in studies concentrating on consumer evaluations and brand share have been that more people generally give positive responses like "popular with all the family" about a large brand than about a small brand. The levels of response among both users and non-users have been shown to decrease with the usership level or market share. Infrequent buyers tend to say that they like a brand less than do its more frequent buyers. Overall, it has been found that attitudinal responses towards a brand is largely conditioned by the brand usage level or market share of the brand.

The good and bad attributes mentioned for the shampoo category in the no competition condition had the same pattern as that mentioned above.

For the good attributes mentioned for the high share shampoo brand in the competition condition, the average number of good characteristics stated kept increasing as before but unlike in the no competition condition, the good attributes mentioned for the low share brands also kept increasing. Recall that in the no competition condition, good thoughts declined for the low share brand from the 3 to 5 repetitions but in the competition condition, good thoughts just kept increasing. The good attributes mentioned in the competition condition for both razors and shampoos had similar patterns i.e., the good attributes mentioned for the high share brands increased marginally throughout all 3 exposure conditions whereas the good thoughts for the low share razors increased substantially throughout all 3 repetition conditions. For the good thoughts stated for shampoos in the competition condition, the pattern for Tame (low share) was practically a straight line.

For the bad attributes mentioned in the razor category with competition, again, less bad thoughts were mentioned for Sensor than for Wilkinson. The bad thoughts for the high share brand had a U shape pattern (i.e., average number of bad attributes mentioned decreased from 1 to 3 repetitions and increased from 3 to 5 repetitions). The same pattern occurred for the low share Wilkinson brand.

Bad attributes mentioned in the competition condition for the shampoo category were again higher for the low share brand than for the high share brand. The pattern for the high share brand had an inverted U shape, meaning that the average number of bad characteristics mentioned increased and then decreased from the 1 to 3 and from the 3 to 5 repetition conditions. The bad thoughts for the low share brands just kept increasing throughout.

In conclusion, the findings showed that subjects had more bad thoughts of the high share brands in the competition condition and more good thoughts of the low share brands in the no competition condition. This again, was consistent with the hypothesis that stated that evaluations would be lower for the high share brands in the presence of competitive lower share brands and that evaluations would be higher for the low share brands in the absence of competitive higher share brands.

## **H7: RECALL**

### **H7a and H7b: Recall of Brand Name Before and After Experiment**

The hypotheses in the methodology chapter stated that recall for the high share brands would increase more in the competition condition and recall for the low share brands would increase more in the no competition condition.

Repetition obviously had an effect in the frequency and % of subjects who recalled the product after having seen the film and the commercials for the target brand (see appendix 22 to see the difference in the percent and number of subjects who recalled the target brands before and after the film presentation). One interesting finding in this study was that recall for low share brands seemed to increase a lot more in the no competition condition than in the competition condition (appendices 23 and 24). High share brands, however, had opposite results. Generally, recall for high share brands increased more in the competition condition than in the no competition condition (appendices 25 and 26).

In order to explain the findings of low share brands-that recall increased more dramatically in the no competition condition- several other studies on competitive advertising were looked into to find similarities with the present one.

Keller (1987) and Burke and Srull (1988) adopted an information processing perspective to study competitive advertising. They showed that increases in the amount of competitive advertising produced interference effects (Postman and Underwood, 1973) and may caused information to be either inaccessible or confused with other information.

In the low share brand condition, recall was higher in the no competition condition. According to Keller, if 2 brands are advertising in the same product category and stored close together in memory, consumers may afterwards have difficulty distinguishing which ad corresponded to which brand. Recall of communication effects for a target brand is then lowered.

In this study, recall for the low share brands increased in both the competition

and no competition conditions throughout all 3 advertising repetition conditions. However, recall for the low share brands increased more in the no competition condition. What is probably occurring here is that in the presence of competition (which in this case is the more familiar higher share brands), the high share brands obviously have a higher valence and may be attracting attention away from the low share brand recall.

In terms of the findings of recall for high share brands (appendices 25 and 26), recall increased more in the competition condition than in the no competition condition (except for the 5 repetition condition for Pantene where recall was slightly higher in the no competition condition). Keller (1991) argued that the distinctiveness of a piece of information in memory positively influences its retrievability and resistance to interference. Therefore, when a low share brand is being advertised in close proximity to a high share brand which consumers are familiar with and which has a higher valence than the ad of a low share brand, the threat of the newer unfamiliar brand causes resistance to interference. Obviously, a low share brand does not have the same importance as a high share brand that consumers know of and have used before, therefore, low share brands will not be stored in the same memory trace as the high share brand. If anything, in the presence of low share brands, consumers put up their defense for high share brands and this enhances their memory for the familiar brands. Prior knowledge enhances a consumer's ability to encode and remember new information. Johnson and Russo's (1986) results suggested that experienced consumers used their knowledge of product class to limit their search.

In addition, in terms of the findings for the high share brands, Keller (1991)

argued that another key factor affecting memory accessibility is whether external retrieval cues are available. Being high share brands, it is assumed that the majority of consumers have either seen/heard of/ or used the product before, therefore, external retrieval cues either in the ad itself are available. Thus, in the presence of competitive advertising there is no threat that competitive advertising will increase the likelihood that an ad memory trace is confused or overlooked. From this theory, Keller hypothesized that an ad retrieval cue has a greater facilitating effect on recall of communication effects for a target ad in the presence rather than the absence of competing ads in the product category. This is probably what happened in this study. In the presence of the competing ads, subjects may have gotten confused or their recall may have been lowered. However, if subjects had prior knowledge of the high share brands which were in the presence of competing lower share brands, they relied on external cues to aid recall and thus recall was higher in the competition condition.

High share brands, because they are more familiar to people, may be associated with positive affect. Isen (1987) claimed that positive affect is used as a cue which allows to recollect the positive material in memory which renders this material more accessible. In the presence of a threat (unfamiliar competitive brand) positive memories of high share brands may be re-activated and may increase the intensity of the emotional state or at least maintain it. Janis (1967) suggested that fear/threat is a drive in the sense that it induces subjects to search for what can suppress the feeling of danger. It is also a cue because the individual reacts to it. Thus, in the presence of competing ads which may pose as a threat, receivers may reject what threatens them by forgetting the message, source, brand name, etc.

Recall for Sensor in the competition condition remained stable from the 3 to 5 repetitions and this is consistent with theory that too many repetitions of high share brands have a detrimental effect on recall. In the no competition condition, recall decreased from the 1 to 3 repetitions and increased from the 3 to 5 repetitions. Recall for Pantene in the competition condition decreased slightly from the 1 to 3 and increased from the 3 to 5 repetitions. Recall plateaued from the 1 to 3 repetitions and increased at the 5 repetitions in the no competition condition for Pantene.

In the shampoos-competition condition, the brand recall for Pantene increased more than for Tame except in the 3 repetition condition where Tame's recall was slightly higher (appendices 24 and 26). But in the no competition condition, recall was a little higher for Pantene at 1 repetition, but then at the 3 and 5 repetitions, recall increased more for Tame. Therefore, generally, recall increased more for Tame in the no competition condition. In the competition condition, the presence of the high share brand seemed to have a detrimental effect on recall for Tame.

Finally, H7a and H7b were accepted in all cases but there was one exception. Appendix 23 and 25 show that at the 1 repetition-competition condition, recall increased more for Sensor but at the 3 and 5 repetitions, it increased more for Wilkinson. In the no competition condition, recall for Wilkinson was higher than Sensor in all 3 repetition conditions as the hypothesis stated. In terms of high share brands, this study was consistent with the theory that consumers tend to selectively attend to information about high share brands that they regularly purchase because they find them pertinent and perceptually salient.

#### **H7a & H7b: Recall of Brand Name in Association with Attribute/Quotation:**

It was mentioned in the methodology chapter that there were 2 measures of recall used in this experiment. The first one was asking subjects to list off the top of their mind the first 4 or 5 brand names of a selected product category that sprung to mind. This recall measure was performed both before and after the film presentation. The second recall measure asked subjects to associate attributes or quotations of brands (derived from the commercials) with the brand name that the attributes/quotes belonged to.

Analyses of variance were run to test for the variation of recall due to different levels of repetition. In addition, sex was used a co-variate to correct for the differences which may be attributed to gender.

Recall for the Sensor razor in the no competition condition showed that sex as a co-variate was significant ( $F=14.572$  and  $p=.000$ ) but the main effects of repetition were not ( $F=.275$ ,  $p=.760$ ). The results for Pantene in the no competition condition also had insignificant main effects for repetition ( $F= 1.962$ ,  $p=.146$ ) and in the case of Pantene, sex as a co-variate was also insignificant ( $F=.235$ ,  $p=.629$ ).

The ANOVA results for the high share brands in the competition condition showed that competition really did have an effect in the recall of the high share brands. The results for Sensor in the competition condition showed that sex as a co-variate was significant with an F value of 4.056 and a probability of .047. In addition, the main effects of repetition with competition were significant with an F value of 4.167 and a p value of .018. The results for the recall of Pantene in the competition condition showed that sex as a co-variate was not significant ( $F=.710$ ,  $p=.401$ ) but the



main effects of repetition were significant ( $F=4.772$ ,  $p=.011$ ).

The ANOVA for Wilkinson in the no competition condition had significant values for sex as a co-variate ( $F=8.833$ ,  $p=.004$ ) and the main effects of repetition were also significant ( $F=10.622$ ,  $p=.000$ ).

For Tame in the no competition condition the results from the analysis of variance showed that sex as a co-variate was insignificant ( $F=.392$ ,  $p=.533$ ). However, the main effects of repetition were significant ( $F=24.622$  and  $p=.000$ ).

The ANOVA for Wilkinson in the competition condition demonstrated that sex as a co-variate was significant ( $F=5.322$ ,  $p=.023$ ) as were the main effects of repetition ( $F=6.611$ ,  $p=.002$ ).

Finally, the ANOVA for Tame in the competition condition had insignificant results for sex as a co-variate ( $F=1.243$ ,  $p=.268$ ) but the main effects of repetition were significant ( $F=7.515$ ,  $p=.001$ ).

#### **Mean Proportions of Subjects that Recalled:**

Appendices 27 to 34 show that even in this second measure of recall, the effects of advertising on recall for the high share brands were greater in the competition condition than in the no competition condition. The opposite was true for the low share brands. For instance, look at appendices 27 and 28 for Sensor and Pantene in the no competition condition. Notice that the mean percentage of subjects that recalled the brand name did not increase by much from one condition to the next. As a matter of fact, as mentioned previously, the ANOVA results showed insignificant main effects for repetition for the high share brands in the no

competition condition. Now look at appendices 29 and 30 and notice how recall for the high share brands in the competition condition just kept increasing from one repetition condition to the next. In addition appendices 27 to 30 show that the magnitudes of the percent increase in recall for high share brands in the competition condition is much greater than in the no competition condition. Recall in the no competition condition increases by a maximum of 11% from the 1 to 5 repetitions whereas recall in the competition condition increases by a maximum of 23% from the 1 to 5 repetition. Thus, once again, H7a is supported.

The graph for Wilkinson in the no competition condition shows that recall is greatly affected by repetition. Appendix 31 shows that the mean proportion of those recalling the product goes from 30% to 51% to 73% from the 1 to 3 and from the 3 to 5 repetitions. Thus, the mean percent increase from the 1 to 5 repetitions is 43%. Appendix 32 for Tame in the no competition condition also shows that the percent of subjects who recalled the brand increased from one repetition condition to the next. The percent increase (of those who recalled Tame) from the 1 to 5 repetition condition is 50%, which is quite a large increase.

Appendices 33 and 34 show that in the competition condition for the low share brands, recall is not quite as high as in the no competition condition. Recall definitely increases even in the competition condition but the percent difference in recall from the 1 to 5 repetitions is 35% whereas in the no competition condition, the percent increase is 43%. Appendix 34 also shows that recall for Tame is constantly increasing throughout all 3 exposure conditions but not as much as in the no competition condition. In the competition condition, the percent of those who recalled Tame

increased by 29% from the 1 to 5 repetition conditions but in the no competition condition, recall increased by 50%. Thus, competition and type of brand share definitely had an effect on recall. Hypotheses 7a and 7b were once again supported.

#### **Recall of Non Target Brands:**

It was of some interest to see what the recall would be of the brands in the opposite condition. For instance, what would be the recall of the low share brands in the high share group. Below are the results.

#### **Recall from high share groups of the low share brands:**

Total Wilkinson before film: 19 - 8.9%

Total Wilkinson after film: 47 - 22.1%

Total Tame before film: 8 - 3.8%

Total Tame after film: 22 - 10.3%

#### **Recall of the high share brands by the low share group:**

Total Pantene before film: 70 - 33.2%

Total Pantene after film: 79 - 37.4%

Total Gillette/Sensor before film: 165 - 78.2%

Total Gillette/Sensor after film: 183 - 86.7%

As one can interpret from the above results, the film presentation aided recall more for the low share brands than for the high share brands. Recall for the high

share brands was already quite high even before the film presentation therefore recall could not increase by that much more. Advertising then just acted as re-enforcement and not as an awareness tool.

## **DISCUSSION**

This chapter has reported the results of specific tests of the hypotheses generated by empirical evidence reviewed earlier. The findings were surprising on a number of fronts. Firstly, the pattern of results between the cells did not always conform to the predictions of the Fazio model or past empirical evidence. Though there were differences in the nature of the relationship between attitudes and behaviour, these could not be explained by differences in attitude accessibility, as herein operationalized, except in the case of high share products. Secondly, the magnitudes of the latencies, and the attitude-behaviour correlations, in general, were different from those expected on the basis of Fazio's results.

### **Results Contrary to the Fazio Model**

The experimental manipulations did not influence the accessibility of attitudes from memory as expected. In addition, there were significant differences in the nature of the attitude-behaviour relationships between the experimental conditions.

In the majority of cases, it was found that attitudes based on the 5 repetition condition had a stronger relationship with subsequent behaviour than attitudes based on a single exposure to advertising. Furthermore, assuming that the measure of accessibility was both reliable and valid, these results did not always provide support for the proposition that attitude accessibility moderated the strength of the a-b

relationship. The attitude accessibility hypothesis was unable to explain why the experimental manipulations employed in this study resulted in differences in the attitude-behaviour relationship. Therefore, alternative explanations for these findings need to be examined.

Recall that a systematic review of the moderator variable literature indicated that a number of qualitative dimensions of attitudes moderate the nature of the relationship between attitudes and behaviour. Some of these variables, attitude confidence for instance, were found to moderate the degree of the a-b relationship. In other words, the proposition that the experimental manipulations influenced the confidence with which attitudes were held and thereby the nature of the a-b relationship needs to be taken into consideration as a further explanation.

Next, it should be noted that people have generally tried and used high share brands and thus have had direct experiences with them. Recall that Fazio and Zanna, (1981) suggested that attitudes formed on the basis of direct experiences might differ from attitudes formed on the basis of indirect experiences in terms of 3 factors : (1) amount of information available, (2) manner of information processing, and (3) manner of attitude storage and retrieval. The accessibility hypothesis focuses only on the third factor. It is conceivable that in this study the attitudes formed on the basis of direct experience (high share brands) differed from those formed on the basis of repeated advertising exposures. Furthermore, such differences in the amount and kind of information in memory may have influenced the nature of the relationship between attitudes and behaviour.

In Associative Network Model of memory these differences in information

might be modeled as differences in the number and/or strength of the associations in the memory representations of the attitude objects. Thus, it might be hypothesized for example, that subjects who directly experienced the products formed memory representations with more and/or stronger associations than subjects who were merely exposed to the advertisements once. Similarly, subjects who were exposed to the advertisements repeatedly may have developed memory representations with more and/or stronger associations than subjects who were exposed to the advertisements only once. Thus, this section has suggested that the experimental conditions may have influenced several other potential moderators of the attitude-behaviour relationship.

### **Domain Differences**

It was noted earlier that the magnitudes of the latencies, and the a-b consistency measures differed from those found by Fazio et al. (1982). The latencies found in this experiment were practically half those found by Fazio et al.. The faster latencies however, may simply reflect the fact that shampoos and razors are more familiar products than intellectual puzzles. One of the reasons razors and shampoos were chosen as the product categories was for its familiarity to the subject population. Similar to the findings of this study, latencies in the three to five second range have been reported in two other studies using familiar product categories. Powell and Fazio (1984) reported response latencies in the 3 to 5 second range using socially relevant issues as attitude objects. In another consumer behaviour study using tires and autos as the attitude objects, Gardner, Mitchell, and Russo (1978) also

reported response latencies in the 3-5 second range. Like shampoos and razors, socially relevant issues and tires/autos would likely be more familiar to an undergraduate subject population than intellectual puzzles. Despite the issue of familiarity, however, there is no apparent reason why the predictions of the theory should not hold in a more familiar product domain.

## CHAPTER 11

### CONCLUSIONS

This research examined the relationship between attitudes and behaviour using a moderator variable perspective. Under this perspective it is conceded that attitudes are often poor predictors of behaviour, and variables are sought that can explain both when and how attitudes provide good predictions of behaviour. A review of the literature revealed that numerous variables have been proposed as moderators of this relationship. These include situational and personality variables as well as a number of different qualitative dimensions of attitudes. Fazio has in the past proposed a model which attempts to integrate these different variables. The model focuses on the process by which attitudes influence behaviour and postulates that attitude accessibility is the critical moderator of the a-b relationship. Because the model suggested some interesting and testable propositions which are relevant to marketing, a research project was undertaken to explicitly test some of these propositions.

This study was designed to examine the moderating influence of attitude accessibility. Furthermore, the experimental manipulations were designed to systematically test whether attitude accessibility moderates the degree or strength of the a-b relationship. Furthermore, the effects of repetition, brand share, and competition were examined to test their influence on attitudes, attitude accessibility, certainty, recall, and on the attitude-behaviour relationship.

In brief, it was found that attitude accessibility did not always appear to moderate the relationship between attitudes and behaviour (i.e., the correlations were



mostly in the no competition conditions and the significant probabilities were weak, meaning that  $p < .05$  or  $p < .10$ ). There was some evidence, however, that attitude confidence and certainty moderated the a-b relationship. Furthermore, it was found that advertising repetition often did not have an influence on the moderator variables but that brand share did. In addition, there was some evidence that the nature of the subjects' mental representations of the products may have also moderated the a-b relationship. These findings and their implications will be discussed below.

## **OVERVIEW OF THE RESULTS**

### **Descriptive Characteristics:**

In this study it was found that the differences in groups due to gender were significant and thus sex was used as a co-variate in all the analyses to control for the effects that may have been attributed to gender. As for the average university year that subjects were in, the chi-square test showed that the variations in groups due to their level of education was also significant, however, this was not an issue of concern due to the simplicity of the task required of the subjects. The average number of TV hours viewed in a week showed no significant difference in groups. Finally, it was concluded that the randomization of the subjects into conditions did not proceed as expected but that the differences would not influence any of the hypotheses being examined.

### **Attitude Accessibility:**

A series of analyses of variance were conducted to test the accessibility hypotheses. The ANOVA results by share by repetition showed that the main effects of repetition and brand share together were significant but that repetition alone was not. In all cases the 2 way interactions of share and repetition were not significant (except in the ANOVA conducted for the shampoo category in the competition condition where the interaction was significant only at the  $p = .10$  significance level). Finally, sex as a co-variate was not significant and thus gender did not seem to be the cause of any variation in accessibility.

In the conditions where no competitive ads were shown, there was little difference between accessibilities between the 1 and 3 repetition conditions. Attitudes formed on the basis of 5 repetitions for high share brands were less accessible than those formed in the low or moderate repetition conditions. Latency however decreased for the low share brands from the 3 to 5 repetition conditions. Therefore, H1 which claimed that more accessible attitudes can be formed via increased repetitions was not wholly accepted because it only applied to the low share brands.

Another finding was that latency was lower for the high share brand only in the shampoo category because of a lack of randomization in the ordering of the questionnaires. This limitation in the study will be referred to again later on in this chapter. Hypothesis 2 was judged on the basis of the shampoo category since there had been a randomization error in the razor category and thus H2 claiming that more accessible attitudes can be formed through brand familiarity (as is the case for high share brands) was accepted.

### **Competition's Effect on Accessibility:**

For the low share brands it was found that response latency declined from the 1 to 3 repetitions in the competition condition but increased in the no competition condition. Next, at the 5 repetitions in the competition condition latency increased but in the no competition condition, latency decreased. As for the high share brands, the response latency was pretty stable throughout all 3 repetition conditions probably because subjects already had previously encoded thoughts and stimuli. Therefore, whether they were exposed to one or 5 repetitions of the ad did not seem to make a large difference in accessibility. Therefore, in this case, H3 claiming that competitive advertising lowers accessibility was valid only for the low share brands in the competition condition.

### **Impact of Level of Repetition and Brand Share on Accessibility:**

As previously mentioned, for the high share brands response latency was pretty constant throughout all the exposure conditions and there seemed to be no added benefit for increased repetitions. Furthermore, in both the competition and no competition conditions, the lowest latencies occurred at either the low or moderate repetition levels. Therefore, H4a which claimed that high share brands only require low or moderate levels of exposure to make attitudes towards them more accessible, was accepted.

In terms of the low share brands in the no competition condition, the results showed an inverted U shaped pattern, meaning that latency first increased and then decreased. Thus, attitudes formed on the basis of 5 advertising exposures were more

accessible from memory than attitudes formed with one single exposure. In the competition condition, accessibility for the low share brands took on a U shaped pattern (opposite of the pattern in the no competition condition). Thus, H4b which claimed that accessibility would be highest for the low share brands at the 5 repetition level was accepted only for the no competition condition.

Although it was expected that advertising repetition could increase the accessibility of attitudes from memory, these increases in repetition did not appear to increase accessibility very much more at 5 repetitions as at 1 or 3 repetitions for the high share brands. As for the low share brands, accessibility only increased in the no competition condition. In the competition condition, repetition actually had a detrimental effect on accessibility - i.e., accessibility declined in the competition condition.

#### **The Effects of Accessibility and Confidence on Behaviour:**

The ANOVA results for confidence showed that for both razors and shampoos in the competition condition, the main effects of brand share and repetition were not significant. However, sex as a co-variate was significant in the razor category with competition. The main effects for razors and shampoos in the no competition condition were significant. Once again, sex as a co-variate in the no competition conditions was significant for both the razor and shampoo categories. All 4 ANOVA's conducted for the two product categories and for the two competition conditions showed that there were not any significant 2 way interactions. The main effects of repetition alone were only significant in one out of the 4 ANOVA's - the analysis of variance for razors in the no competition condition. The main effects of brand share

alone were significant in all cases except for shampoos in the competition condition. These results showed that most of the variation was due to brand share and not to repetition.

In terms of the razor category, males in general held their attitudes with more confidence. Furthermore, confidence in attitudes was higher for the high share razor than for the low share razor. Consistent with theory was the finding that for the high share razor, as latency increased, confidence decreased. For the low share razor, it was found that as latency decreased, confidence also decreased, which went against theory and previous findings. Thus, H5a claiming that more accessible attitudes are also held with more confidence was accepted for the high share razor category but not for the low share.

In terms of the shampoo category in the no competition condition, confidence was higher for the high share brand, Pantene, and females were more confident of their answers than males were. In terms of the low share brand, Tame, both males and females were most confident of their attitudes towards the product at the 5 repetition condition in the no competition condition. Confidence for both the high and low share shampoos decreased as latency increased. This, again was consistent with the hypothesis and with theory. Thus, H5a for shampoos was accepted in the no competition condition. Further analyses of correlations of latency with confidence showed that there was also a correlation of confidence with latency for Pantene but not for Tame.

The correlation of attitudes with behaviour showed that as attitudes got better, behaviour probability also increased.

The correlation analysis of confidence with latency showed that in most cases the correlation coefficients were positive, meaning that as latency increased, so did the certainty value (i.e., confidence decreased). Furthermore, significant correlations between latency and confidence were found in approximately half the conditions.

The correlation analysis of confidence with behaviour showed that for the high share brands, correlation coefficients were always negative numbers and generally significant. The low share brands had some unexplainable findings. The correlation coefficients started off as being positive numbers (meaning that as confidence decreased, the chances of purchasing the product increased) but then became negative numbers in cells 8 through 12. Thus, keeping all this in mind, H5b which claimed that confidence moderates the a-b relationship was supported only for the high share brands.

Hypothesis 5c which claimed that attitude accessibility moderates the a-b relationship was not wholly supported. With the exception of Tame, H5c only had significant probabilities in the no competition conditions (of Sensor, Wilkinson, and Pantene). The correlation analysis of latency with behaviour showed that all the coefficients were negative and thus going in the right direction, meaning that as latency increased, behaviour decreased. However, there were not as many significant probabilities as expected for these correlation coefficients to support this hypothesis. Although some results indicated that repetition could increase the accessibility of attitudes from memory, these increases in accessibility did not appear to influence the nature of the relationship between attitudes and subsequent behaviour.

Because the accessibility hypothesis was unable to explain why the experimental

manipulations caused differences in the a-b relationship, alternative explanations were examined. It was suggested that the memory representations formed by subjects in the different conditions varied in terms of the number and/or strength of their associations. The subjects in the single advertising exposure condition may have formed memory representations of the objects with fewer and weaker attribute associations than the subjects in the other conditions. In addition, the results indicated that the confidence with which subjects in different conditions held their attitudes differed. Attitude confidence and attitude certainty were higher in for the high share products, for instance. There was therefore some support for the proposition that the confidence/certainty with which the attitudes were held moderated the relationship between attitudes and behaviour.

#### **Attitudes:**

The hypothesis for attitudes which stated that evaluations for high share brands would be lower in the presence of competitive lower share brands and that evaluations for low share brands would be higher in the presence of competitive higher share brands was wholly supported. Furthermore, it was found that repetition had little influence on attitudes.

The second measure of attitudes - the open ended question which asked respondents to state the facts and characteristics which they believed to be true of each target brand - also supported the above hypotheses. The responses for this question showed that subjects had more bad things to say about the high share brands in the competition condition, and more good things to say about the low share brands in the no competition condition.

**Recall:**

Both H7a (recall for high share brands would increase more in the competition condition) and H7b (recall for low share brands would increase more in the no competition condition) were accepted in all cases.

**ATTITUDE ACCESSIBILITY AND THE FAZIO MODEL**

Perhaps the most surprising result of this research was the apparent lack of the attitude accessibility moderating behaviour hypothesis. The experimental manipulations were supposed to create attitudes that differed in their accessibility from memory, but these differences did not always cause differences in the degree or strength of the relationship between attitudes and behaviour. Attitudes that were highly accessible were no more predictive of behaviour than attitudes that were less accessible. As a matter of fact, the correlation analysis of latency with behaviour found very few significant results. Most of the significant probabilities were found in the no competition conditions.

These findings indicate the need for more research on the accessibility hypothesis. If additional studies also fail to find a relationship between accessibility and the a-b relationship then the generalizability of the moderating influence of attitude accessibility would have to be questioned.

Recall that the Fazio Process model predicts that attitudes that are more accessible will be more predictive of future behaviour because they are more likely to be automatically accessed upon mere exposure to the attitude object. However, the Fazio model and the accessibility proposition may be applicable only in behavioral



situations wherein individuals are expected to behave in an "automatic" rather than controlled fashion. It is possible that the behavioral situation used in this experiment was not of this type.

Although the choice of a shampoo/razor may be of a low consequence, low involvement decision, forcing subjects to rate the likelihood of them purchasing the brands may have created a behavioral situation which somehow cued individuals to retrieve their attitudes from memory in a controlled fashion. The fact that there were differences in the a-b relationships between conditions suggests that though attitudes may have been retrieved, these attitudes may have differed on qualitative dimensions other than accessibility, such as confidence or certainty.

It has been argued that attitude accessibility is only one way in which memory representations of objects may differ, and that the automatic activation of attitudes is only one qualitative dimension of attitudes that might influence the nature of the relationship between attitudes and behaviour. A more general model may be to postulate that differences in mental representations of attitude objects, which are the result of different object experiences cause differences in qualitative dimensions of attitudes. These differences in qualitative dimensions (i.e., the confidence/clarity with which attitudes are held, cognitive-affective consistency) may in turn cause differences in the a-b relationship. These clarifications may explain why the a-b results in the Fazio et al (1982) study were weak and why the attitude accessibility did not moderate the a-b relationship in this study. Recall that Fazio et al (1982) found large differences in attitude accessibility as a result of repeated attitudinal expression, but that these differences did not result in significant differences in the a-b relationship.

Similarly, in this study, significant differences in attitude accessibility did not result in differences in the a-b relationship. The manipulations may not have created attitudes that were sufficiently accessible to produce automatic or spontaneous activation. The behavioral situations in this study may have cued individuals to consider their attitudes in a controlled fashion. Under these circumstances the nature of the relationship between attitudes and behaviour would have been independent of accessibility and would have been determined by other qualitative dimensions of attitudes.

The results found for confidence imply that attitudes that are held with high levels of confidence or certainty are somehow labelled in memory. Attitudes that are high in confidence are actually used by individuals faced with a behavioral decision. On the other hand, attitudes which are low on this dimension are more likely to be ignored, and their behavioral implications reconsidered.

Another surprising result in this study was the fact that repetition did not have as large a role in the differences in the dependent variables as did brand share. Recall, that when analyzing repetition separately in the ANOVA's, most of the time repetition had insignificant p values. It just so happened that most of the variation was being caused by brand share and not by advertising repetition. This is consistent with Tellis' (1988) findings. Tellis claimed that advertising re-enforced preference for current, higher share brands rather than stimulate brand switching for newer, lower share brands. Thus, the effect of brand familiarity DOMINATES that of other variables. In addition, it is possible that memory representations formed in different conditions varied in terms of the number and/or strength of the associations. For instance, low share brands may not have been labelled in or "flagged" from memory

as easily as high share brands because of their position on the market. In such a case, the number of repetitions would not affect learning or evaluations. More research should be done on repetition under more realistic scenarios where such factors as brand share, availability, promotions, price and other variables which might cause differences in memory representation, are accounted for.

### **FUTURE RESEARCH DIRECTION**

This research provided some answers and numerous additional questions about the relationship between attitudes and behaviour. The confidence and certainty results of this study provide a springboard for future investigations. Furthermore, a number of measurement and methodological issues need to be considered. In particular, whether attitude confidence measured by using bi-polar scales is the best way to operationalize this construct. Although bi-polar scales are common in the attitude literature, confidence in the decision making literature is generally measured using probability of being correct judgments, (see for example Oskamp, 1965 or Einhorn and Hogarth, 1978). Subjects are typically asked to estimate the likelihood that their answer is correct. The implications of these measurement differences and the most appropriate way of operationalizing attitude confidence and certainty should be explicitly considered.

Similarly, ways of conceptualizing and measuring the memory representations of objects need to be developed. Secondly, the relative influences of these representational differences on both the confidence and certainty with which attitudes are held and the nature of the a-b relationship need to be examined. The influence

of different amounts of product information (such as in the case of high versus low share brands) on the number of associations in the mental representations should be examined and compared to the influence on the strength of the associations of repeated exposure to the same product information.

Next, a different behavioral situation needs to be devised which is somehow less consequential. The accessibility hypothesis needs to be tested in a domain in which more "automatic", less "controlled" processes are expected to operate.

In addition, accessibility should be measured by using a more precise device. In this study, subjects reported their own time in seconds. In future studies, accessibilities should be measured in milliseconds or centiseconds as is being done today in more recent studies. Reporting latencies in seconds may be a little outdated and not accurate enough.

Furthermore, the fact that subjects reported their own time in this study, and that each attitudinal measure was not timed separately was a major weakness. In future studies computers should be used to measure latency more accurately and to measure latency for each and every attitudinal measure.

Another limitation in this experiment was the fact that the ordering of the questions was not randomized. Future studies, once again, should be performed in a fashion where all questions are presented to subjects in a random order.

Another drawback in this experiment was the fact that the speed/accuracy trade-offs could not be measured. Since evaluations could not be "right" or "wrong", it is difficult to test if the time taken to answer the attitudinal measure was equally accurate. Furthermore, another limitation is the fact that using 3 or 5 repetitions in

the study was not measured beforehand to verify that these levels of repetition were indeed appropriate. Relying on previous research that claimed that 3 and 5 repetitions were adequate levels to represent moderate and high exposures may not have been enough.

Finally, the conclusion drawn from this experiment need to be examined in other settings. The impact of direct experiences in other product categories should be tested. For instance, whether or not automobile test drives and other kinds of free product trials influence the relationship between attitudes and behaviour should be studied.

### **MANAGERIAL IMPLICATIONS**

It was demonstrated in this research that advertising repetition could influence behaviour with little or no influence on attitudes or evaluations. Thus, if advertising repetition can influence behaviour without changing attitudes, perhaps other variables can too. For example, attitudes based on emotional appeals may be qualitatively different from attitudes based on more cognitive appeals. In addition, they may be more predictive of behaviour. These speculations imply that it is not enough to measure the impact of marketing decisions on product evaluations. Knowing people's stated evaluations of products is not enough to reliably predict behaviour. Managers must also understand the qualitative nature of those evaluations, and their influence on the relationship between attitudes and behaviour.

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A P P E N D I X

## PLEASE READ THESE INSTRUCTIONS CAREFULLY

I would now like to test a new attitude measurement technique.

For most of the questions in this questionnaire you will have to refer to the commercials that you were exposed to in the video presentation.

Some questions however will be about products that you did NOT see in the commercials but for which you may use common knowledge or previous acquired knowledge from commercials that you may have seen on TV prior to today.

For instance I may ask you if Crest has fluoride and despite the fact that you did not see an advertisement for Crest during the video presentation, you know from previous commercials that you have been exposed to in the past, that it does have fluoride. So do your best and try to answer as many questions as you can.

Simple enough? Well, there's a catch! You will **TIMED** on how long it takes you to respond to **some** questions. For instance, at the top of the page for some questions, you may see "time started" and then at the end of the question you may see "time finished". When you see these time slots at certain sections of the questionnaire, **IT IS VERY IMPORTANT THAT YOU FILL IN THESE TIME SLOTS DOWN TO THE SECOND!!!!** Your instructor will tell you what clock to look at to assure that everyone goes by the same time.

I am **predominantly** interested in your **answer** and **secondarily** interested in **how long** it takes you to respond. I ask of you to be **EQUALLY ACCURATE** on all your answers. I would rather you take the time to be **accurate**, than for you to rush your answers in order to answer quickly.

Remember to be equally accurate in all your answers. If you are unsure about a question, take the time to think about it for a moment, then make your best guess. Make **AS FEW** mistakes as possible, while answering **AS QUICKLY** as you can.

Furthermore, you are not allowed to turn to questions from previous pages. Once you have turned the page please go on and do not turn back to the previous questions.

**ONCE AGAIN, DO NOT FORGET TO BE RECORDING YOUR TIME AT THE REQUIRED AREAS SINCE THIS IS A VERY IMPORTANT ASPECT OF THE RESEARCH...**

Thank you for your co-operation

**DO NOT TURN TO THE NEXT PAGE UNTIL YOUR INSTRUCTOR TELLS YOU TO**

## APPENDIX I

Section #1

This question may seem familiar to you, but I'd like for you to answer it again....

For each of the products below write down the first 4 or 5 brand names that spring to mind. If you can't think of 5 for each, don't worry. What is important is the one you think of first, the one you think of second, and so on, not whether you can think of 5.

Example: If the first product was instant coffee, you might answer: 1. Maxwell House 2. Taster's Choice 3. Nescafe 4. Sanka 5. Maxim

- |                            |        |        |        |
|----------------------------|--------|--------|--------|
| 1. Toothpaste:             | 1..... | 2..... | 3..... |
|                            | 4..... | 5..... |        |
| 2. Shampoos:               | 1..... | 2..... | 3..... |
|                            | 4..... | 5..... |        |
| 3. Razors:                 | 1..... | 2..... | 3..... |
|                            | 4..... | 5..... |        |
| 4. Soaps:                  | 1..... | 2..... | 3..... |
|                            | 4..... | 5..... |        |
| 5. Cold Medicines:         | 1..... | 2..... | 3..... |
|                            | 4..... | 5..... |        |
| 6. Personal:<br>Deodorants | 1..... | 2..... | 3..... |
|                            | 4..... | 5..... |        |

## Section #2:

The following is a list of quotes/attributes taken from commercials of popular brands. You may or may not have seen some of these brands during the film presentation.

However, try to the best of your ability to associate the quote/attribute with its **brand name** by guessing or using previously acquired knowledge. You may have heard some of these quotes from advertisements that you had seen on TV prior to today's presentation.

If and only if you have absolutely no idea which brand the quote belongs to, then leave the space blank.

For example:

-this product is "the quicker-picker-upper:"

\_\_\_\_\_ Answer: Bounty

- "same basic ingredients as in the more expensive brands"

-this product is considered a "hidden treasure"

-this is a new product that claims that "no other of its kind provides a closer, safer wet shave"

-has "thicker coating action that coats your throat and starts working in 5 minutes"

- "richest lubricating gel"

- "contains pro-vitamin B-5"

- "the best a man can get"

-this razor is "hidden behind barb wires"

- "goes on clear without any flaky residue"

---

- "offers protection against razor irritation"

---

this product is a shampoo and "treatment conditioner" in one. It can "make even permed hair look healthy and shiny".

---

ideal medicine to fight a nagging cough

---

this is a medicine that kids will love due to its good taste

---

- this product's pro-vitamins go into the hair "improving it deep down".

---

- product is "99 and 3/4 percent pure soap"

---

- "has independent suspension to sense and adjust to your face"

---

the commercials for this product are part of a sequel of a couple getting romantically involved; it is considered a "sophisticated coffee".

---

- this automobile has been re-shaped, re-engineered and made better with a sleeker design and more ergonomic interior

---

- this product is pure soap and contains no greasy film, colouring or strong perfumes

---

- this product is considered as "the perfect cup of coffee the world loves to hug".

---

- the commercial for this automobile was advertising its low, affordable price. Its claim was: "So you want a vacation down south AND you need a new car".

---

-this shampoo's price is "just a drop in the bucket" compared to other brands. There's "something beautiful in every drop".

---

-this cough medicine is most recommended by pediatricians because of it has a good taste and children will not avoid taking the medicine.

---

-this product is referred to as a "clear power anti-perspirant"

---

-this razor has a silver and black chrome handle

---

-this shampoo claims that it leaves hair as naturally "shiny and silky" as in the more expensive brands yet it costs less.

---

-this razor has twin blades set on springs.

---

### **SECTION #3:**

I would like you now to indicate your feelings about some products. Once again, you may or may not have seen a commercial for these products during the film presentation, but chances are you have heard of them, used them, or seen other commercials for them in the past. Therefore, try to the best of your ability to answer all the questions.

**ONLY IF YOU KNOW ABSOLUTELY NOTHING ABOUT THE PRODUCT, THEN LEAVE THE QUESTION BLANK.**

FURTHERMORE, YOU WILL BE TIMED ON HOW LONG IT TAKES YOU TO ANSWER QUESTIONS A THROUGH D OF THIS SECTION. PLEASE USE THE INDICATED TIME SLOTS AND BE VERY SPECIFIC. MARK DOWN BOTH MINUTES AND SECONDS!!!

FINALLY, REMEMBER THAT I ASK YOU TO BE EQUALLY ACCURATE ON ALL YOUR ANSWERS. I WOULD RATHER YOU TAKE THE TIME TO BE ACCURATE THAN FOR YOU TO RUSH YOUR ANSWERS IN ORDER TO ANSWER QUICKLY.

**TURN TO THE NEXT PAGE TO CONTINUE**



**A. Sensor Razor**

Circle the appropriate number, on each of the scales below, that best describes how you feel about the Sensor Razor.

Please use every scale. Even if you have never used the product but have heard something about it, please state how you feel about it anyway.

If you have never seen an advertisement for the product or know absolutely nothing about the product, then please write N/A on the line following the period. \_\_\_\_\_

**Time started:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_

bad	1	2	3	4	5	6	7	8	9	good
dislike extremely	1	2	3	4	5	6	7	8	9	like extremely
product is inferior to its competitors	1	2	3	4	5	6	7	8	9	product is superior to its competitors
boring product	1	2	3	4	5	6	7	8	9	interesting product
pointless product	1	2	3	4	5	6	7	8	9	useful product
cheap product	1	2	3	4	5	6	7	8	9	high quality product
ordinary product	1	2	3	4	5	6	7	8	9	different product
"rip-off"	1	2	3	4	5	6	7	8	9	good value for money
not beneficial	1	2	3	4	5	6	7	8	9	beneficial
unfavourable product	1	2	3	4	5	6	7	8	9	favourable product
bad image	1	2	3	4	5	6	7	8	9	good image
bad commercial	1	2	3	4	5	6	7	8	9	good commercial

**Time finished:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_

Please circle the appropriate number below which indicates how **certain** and how **confident** you feel about the ratings that you made above.

very certain	1	2	3	4	5	6	7	8	9	not at all certain
completely confident	1	2	3	4	5	6	7	8	9	not at all confident

**B. Wilkinson Razor**

Circle the appropriate number, on each of the scales below, that best describes how you feel about the Wilkinson Razor.

Please use every scale. Even if you have never used the product but have heard something about it, please state how you feel about it anyway.

If you have never seen an advertisement for the product or know absolutely nothing about the product, then please write N/A on the line following the period. \_\_\_\_\_

**Time started: \_\_\_\_:\_\_\_\_ seconds:\_\_\_\_\_**

bad	1	2	3	4	5	6	7	8	9	good
dislike extremely	1	2	3	4	5	6	7	8	9	like extremely
product is inferior to its competitors	1	2	3	4	5	6	7	8	9	product is superior to its competitors
boring product	1	2	3	4	5	6	7	8	9	interesting product
pointless product	1	2	3	4	5	6	7	8	9	useful product
cheap product	1	2	3	4	5	6	7	8	9	high quality product
ordinary product	1	2	3	4	5	6	7	8	9	different product
"rip-off"	1	2	3	4	5	6	7	8	9	good value for money
not beneficial	1	2	3	4	5	6	7	8	9	beneficial
unfavourable product	1	2	3	4	5	6	7	8	9	favourable product
bad image	1	2	3	4	5	6	7	8	9	good image
bad commercial	1	2	3	4	5	6	7	8	9	good commercial

**Time finished: \_\_\_\_:\_\_\_\_ seconds:\_\_\_\_\_**

Please circle the appropriate number below which indicates how certain and how confident you feel about the ratings that you made above.

very certain	1	2	3	4	5	6	7	8	9	not at all certain
completely confident	1	2	3	4	5	6	7	8	9	not at all confident

### C. Tame Shampoo

Circle the appropriate number, on each of the scales below, that best describes how you feel about Tame Shampoo.

Please use every scale. Even if you have never used the product but have heard something about it, please state how you feel about it anyway.

If you have never seen an advertisement for the product or know absolutely nothing about the product, then please write N/A on the line following the period. \_\_\_\_\_

**Time started:    :\_\_\_\_\_ seconds:\_\_\_\_\_**

bad	1	2	3	4	5	6	7	8	9	good
dislike extremely	1	2	3	4	5	6	7	8	9	like extremely
product is inferior to its competitors	1	2	3	4	5	6	7	8	9	product is superior to its competitors
boring product	1	2	3	4	5	6	7	8	9	interesting product
pointless product	1	2	3	4	5	6	7	8	9	useful product
cheap product	1	2	3	4	5	6	7	8	9	high quality product
ordinary product	1	2	3	4	5	6	7	8	9	different product
"rip-off"	1	2	3	4	5	6	7	8	9	good value for money
not beneficial	1	2	3	4	5	6	7	8	9	beneficial
unfavourable product	1	2	3	4	5	6	7	8	9	favourable product
bad image	1	2	3	4	5	6	7	8	9	good image
bad commercial	1	2	3	4	5	6	7	8	9	good commercial

**Time finished:    :\_\_\_\_\_ seconds:\_\_\_\_\_**

Please circle the appropriate number below which indicates how certain and how confident you feel about the ratings that you made above.

very certain	1	2	3	4	5	6	7	8	9	not at all certain
completely confident	1	2	3	4	5	6	7	8	9	not at all confident

### D. Pantene Shampoo

Circle the appropriate number, on each of the scales below, that best describes how you feel about Pantene Shampoo.

Please use every scale. Even if you have never used the product but have heard something about it, please state how you feel about it anyway.

If you have never seen an advertisement for the product or know absolutely nothing about the product, then please write N/A on the line following the period. \_\_\_\_\_

**Time started:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_

bad	1	2	3	4	5	6	7	8	9	good
dislike	1	2	3	4	5	6	7	8	9	like
extremely										extremely
product is inferior to its competitors	1	2	3	4	5	6	7	8	9	product is superior to its competitors
boring product	1	2	3	4	5	6	7	8	9	interesting product
pointless product	1	2	3	4	5	6	7	8	9	useful product
cheap product	1	2	3	4	5	6	7	8	9	high quality product
ordinary product	1	2	3	4	5	6	7	8	9	different product
"rip-off"	1	2	3	4	5	6	7	8	9	good value for money
not beneficial	1	2	3	4	5	6	7	8	9	beneficial
unfavourable product	1	2	3	4	5	6	7	8	9	favourable product
bad image	1	2	3	4	5	6	7	8	9	good image
bad commercial	1	2	3	4	5	6	7	8	9	good commercial

**Time finished:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_

Please circle the appropriate number below which indicates how certain and how confident you feel about the ratings that you made above.

very certain	1	2	3	4	5	6	7	8	9	not at all certain
completely confident	1	2	3	4	5	6	7	8	9	not at all confident



On a scale of 1 to 9, what is the state of your intention to purchase the following products the next time a product of its nature is needed?

a) Wilkinson Protector Razor

would definitely not purchase	1	2	3	4	5	6	7	8	9	would definitely purchase
----------------------------------	---	---	---	---	---	---	---	---	---	------------------------------

b) Gillette Sensor Razor

would definitely not purchase	1	2	3	4	5	6	7	8	9	would definitely purchase
----------------------------------	---	---	---	---	---	---	---	---	---	------------------------------

c) Tame Shampoo

would definitely not purchase	1	2	3	4	5	6	7	8	9	would definitely purchase
----------------------------------	---	---	---	---	---	---	---	---	---	------------------------------

d) Pantene Shampoo

would definitely not purchase	1	2	3	4	5	6	7	8	9	would definitely purchase
----------------------------------	---	---	---	---	---	---	---	---	---	------------------------------

Please circle the appropriate number below which indicates how certain and how confident you feel about the ratings that you made above.

very certain	1	2	3	4	5	6	7	8	9	not at all certain
-----------------	---	---	---	---	---	---	---	---	---	-----------------------

completely confident	1	2	3	4	5	6	7	8	9	not at all confident
-------------------------	---	---	---	---	---	---	---	---	---	-------------------------

**SECTION #5:**

If you were out shopping for razors, which brand would you most likely buy?

\_\_\_\_\_

If that were not available, which brand would be your second choice?

\_\_\_\_\_

If you were out shopping for shampoo, which brand would you most likely buy?

\_\_\_\_\_

If that were not available, which brand would be your second choice?

\_\_\_\_\_

Could you state the last brand of razor you used (you may state disposable razors as well).

\_\_\_\_\_

Do you use this brand of razor regularly?    YES                    NO

Could you please state the brand name of the last brand of shampoo you purchased?

\_\_\_\_\_

Do you use this shampoo regularly?    YES                    NO

**SECTION #6:**

Suppose you had no choice but to choose between several brands of shampoo. Please circle which shampoo you would choose for A) your first and B) your second choice:

**Time started:**    \_\_:\_\_ **seconds:** \_\_\_\_\_

**A. 1st choice:**

- a. Pantene
- b. Head and Shoulders
- c. Finesse
- d. Tame
- e. Salon Selectives
- f. Pert Plus
- g. Timotei
- h. Johnson & Johnson

**Time finished:**    \_\_:\_\_ **seconds:** \_\_\_\_\_

**Time started:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_

**B. 2nd choice:**

- a. Pantene
- b. Head and Shoulders
- c. Finesse
- d. Tame
- e. Salon Selectives
- f. Pert Plus
- g. Timotei
- h. Johnson & Johnson

**Time finished:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_

Suppose you had no choice but to choose among several brands of razors. Please circle which brand of razor you would choose as your A) first and B) second choice:

**Time started:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_

**A. 1st Choice:**

- a. Sensor
- b. Schick
- c. Wilkinson Protector
- d. BIC
- e. Daisy
- f. Atra
- g. Trac II
- h. Personal Touch

**Time finished:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_

**Time started:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_

**B. 2nd Choice:**

- a. Sensor
- b. Schick
- c. Wilkinson Protector
- d. BIC
- e. Daisy
- f. Atra
- g. Trac II
- h. Personal Touch

**Time finished:** \_\_\_\_:\_\_\_\_ **seconds:** \_\_\_\_\_



**SECTION #8:**

I would now like you to help me understand the kind of sensation that you gathered about some of the products that you saw in commercials during the video presentation.

On the pages that follow I would like you to indicate the characteristics and facts you believe to be true about each of the products that you saw advertised.

Each page has 10 lines. I would like you to put one fact, attribute, or characteristic, on each line. If you can not think of 10, note as many as you can and leave the rest blank. Ignore grammar and punctuation. Remember, time is a key issue in this experiment.

As an example, suppose I asked you to list the characteristics and facts that you believe to be true about PIZZA PIZZA. Your answer might look something like this.

1. can be delivered or picked up
2. thin crust
3. cheap
4. comes in both small or large sizes
5. usually cold when it arrives
6. worst pizza I've ever tasted
- 7.
- 8.
- 9.
- 10.

In the boxes below, please write the characteristics and facts you believe to be true about the GILLETTE SENSOR RAZOR.

**Time started:** \_\_:\_\_ seconds:\_\_\_\_\_

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

**Time Finished:** \_\_:\_\_ seconds:\_\_\_\_\_

In the boxes below, please write the characteristics and facts you believe to be true about the WILKINSON PROTECTOR RAZOR.

**Time started:** \_\_:\_\_ **seconds:** \_\_\_\_

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

**Time Finished:** \_\_:\_\_ **seconds:** \_\_\_\_

In the boxes below, please write the characteristics and facts you believe to be true about TAME SHAMPOO.

**Time started:** \_\_:\_\_ **seconds:** \_\_\_\_

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

**Time Finished:** \_\_:\_\_ **seconds:** \_\_\_\_

In the boxes below, please write the characteristics and facts you believe to be true about PANTENE SHAMPOO.

**Time started:** \_\_:\_\_ seconds:\_\_\_\_

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

**Time Finished:** \_\_:\_\_ seconds:\_\_\_\_

What do you think was the purpose of this research?

.....  
 .....  
 .....

#### DEMOGRAPHIC INFORMATION

Male or Female

University Year: 1 2 3 4 5 6 other

Program: \_\_\_\_\_

Thinking of last week, how many hours of television would you say you watched?

TV: \_\_\_\_\_ HRS.

**THANK YOU FOR PARTICIPATING IN THIS EXPERIMENT!  
 YOUR PARTICIPATION IS EXTREMELY APPRECIATED.  
 HAVE A GREAT SEMESTER!!!**

### PILOT QUESTIONNAIRE

For each of the products below, write down the first 4 or 5 brand names that spring to mind. If you can not think of 4 or 5 brand names for each product category, don't worry. What is important is the one you think of first, the one you think of second, and so on, not whether you can think of 5.

Example: If the first product was instant coffee, you might answer:

1. Maxwell House 2. Taster's Choice 3. Nescafe 4. Sanka 5. Maxim

1. Razors:	1.....	2.....	3.....
	4.....	5.....	
2. Shampoos:	1.....	2.....	3.....
	4.....	5.....	

### ATTITUDE MEASURES

I would like you now to indicate your feelings about some products of two different product categories, shampoos and razors. Please try to answer all the attitude measure scale questions. It does not matter if you have never used the product before, so long as you have heard of it or seen some form of advertising for that product.

However, if you have never heard of the product before and know absolutely nothing about it please put a check mark next to the statement "Do not know anything about the product".

#### Sensor Razor

Do not know anything about the product \_\_\_\_\_ (put check mark if this statement applies to you).

bad	1	2	3	4	5	6	7	good
like extremely	1	2	3	4	5	6	7	dislike extremely
product is superior to its competitors	1	2	3	4	5	6	7	product is inferior to its competitors
cheap product	1	2	3	4	5	6	7	high quality product
different product	1	2	3	4	5	6	7	ordinary product
good image	1	2	3	4	5	6	7	bad image
popular brand	1	2	3	4	5	6	7	unpopular brand

Wilkinson Razor

Do not know anything about the product \_\_\_\_\_

bad	1	2	3	4	5	6	7	good
like extremely	1	2	3	4	5	6	7	dislike extremely
product is superior to its competitors	1	2	3	4	5	6	7	product is inferior to its competitors
cheap product	1	2	3	4	5	6	7	high quality product
different product	1	2	3	4	5	6	7	ordinary product
good image	1	2	3	4	5	6	7	bad image
popular brand	1	2	3	4	5	6	7	unpopular brand

Tame Shampoo

Do not know anything about the product \_\_\_\_\_

bad	1	2	3	4	5	6	7	good
like extremely	1	2	3	4	5	6	7	dislike extremely
product is superior to its competitors	1	2	3	4	5	6	7	product is inferior to its competitors
cheap product	1	2	3	4	5	6	7	high quality product
good image	1	2	3	4	5	6	7	bad image
popular brand	1	2	3	4	5	6	7	unpopular brand

Pantene Shampoo

Do not know anything about the brand \_\_\_\_\_.

bad	1	2	3	4	5	6	7	good
like extremely	1	2	3	4	5	6	7	dislike extremely purchase
product is superior to its competitors	1	2	3	4	5	6	7	product is inferior to its competitors
cheap product	1	2	3	4	5	6	7	high quality product
good image	1	2	3	4	5	6	7	bad image
popular product	1	2	3	4	5	6	7	unpopular product

Which of the two razors is more popular in your eyes?

- a. Gillette Sensor Razor
- b. Wilkinson Protector Razor
- c. same

Which of the two shampoos is more popular in your eyes?

- a. Tame Shampoo
- b. Pantene Shampoo
- c. same

Does brand share or popularity of a brand affect how you may rate a product?

YES

NO

**TOP OF MIND RECALL RESULTS FROM  
PILOT STUDY**

■ OUT OF 26 RESPONDENTS:

◆19 PLACED SENSOR AS #1 BRAND

◆3 PLACED SENSOR AS #2 BRAND

◆1 MENTIONED WILKINSON AS #2  
BRAND

◆5 MENTIONED WILKINSON AS #3  
BRAND

◆6 MENTIONED PANTENE AS #1  
BRAND

◆2 MENTIONED PANTENE AS A #2  
BRAND

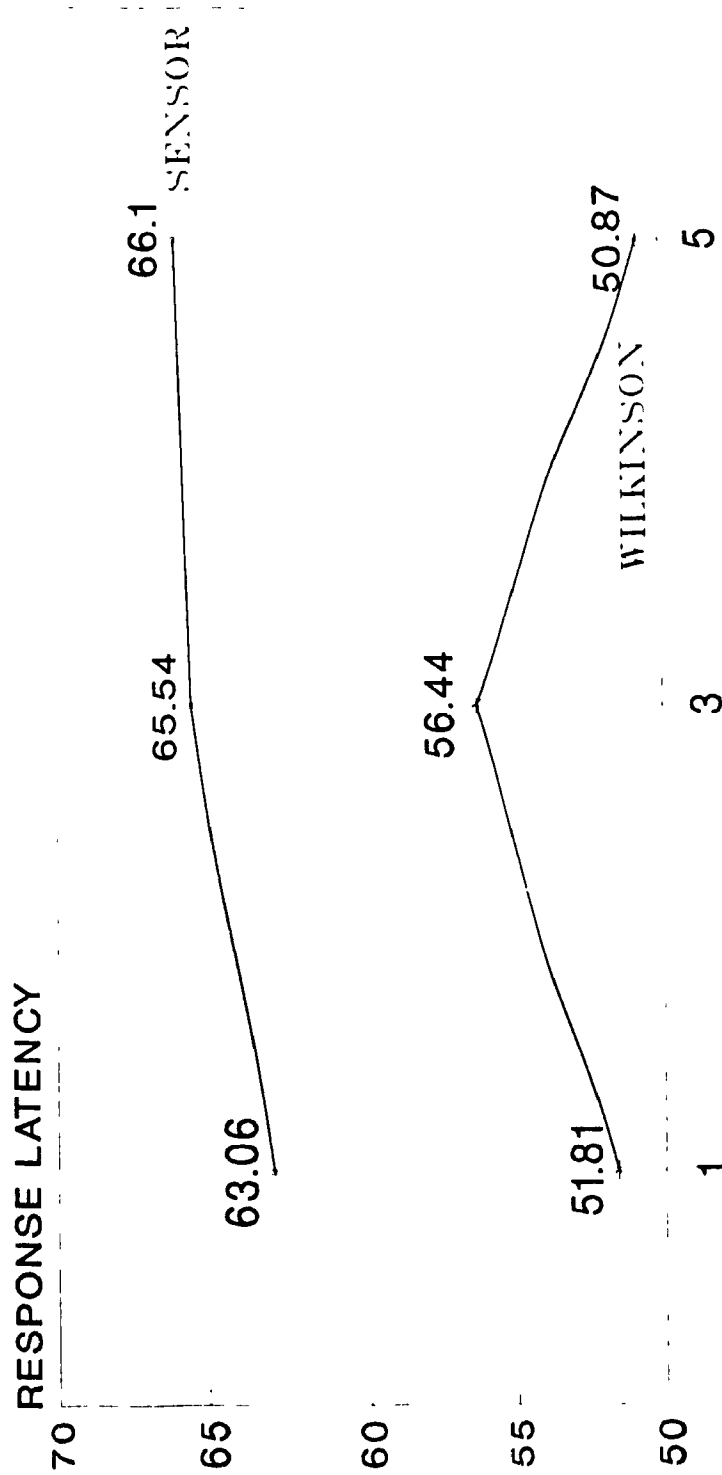
◆4 MENTIONED PANTENE AS A #3  
BRAND

◆2 MENTIONED TAME AS A #2  
BRAND

◆1 MENTIONED TAME AS A #3  
BRAND

# RAZOR ACCESSIBILITY

## NO COMPETITION



## REPETITION

— HIGH SHARE-SENSOR — LOW SHARE-WILKINSON

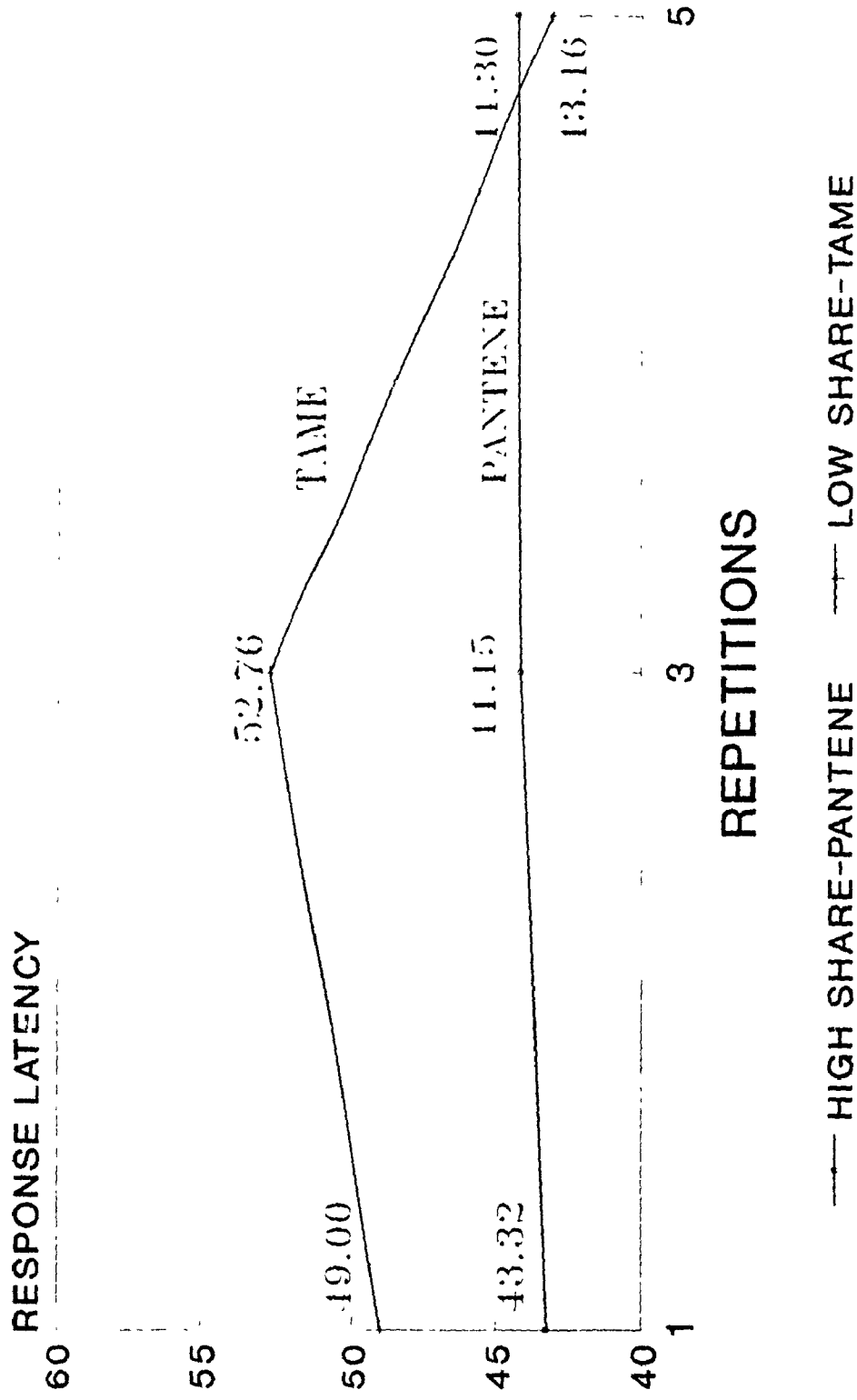
ACCESSIBILITY MEASURED IN RESP. LATENCY

APPENDIX 1



# SHAMPOO ACCESSIBILITY

## NO COMPETITION CONDITION

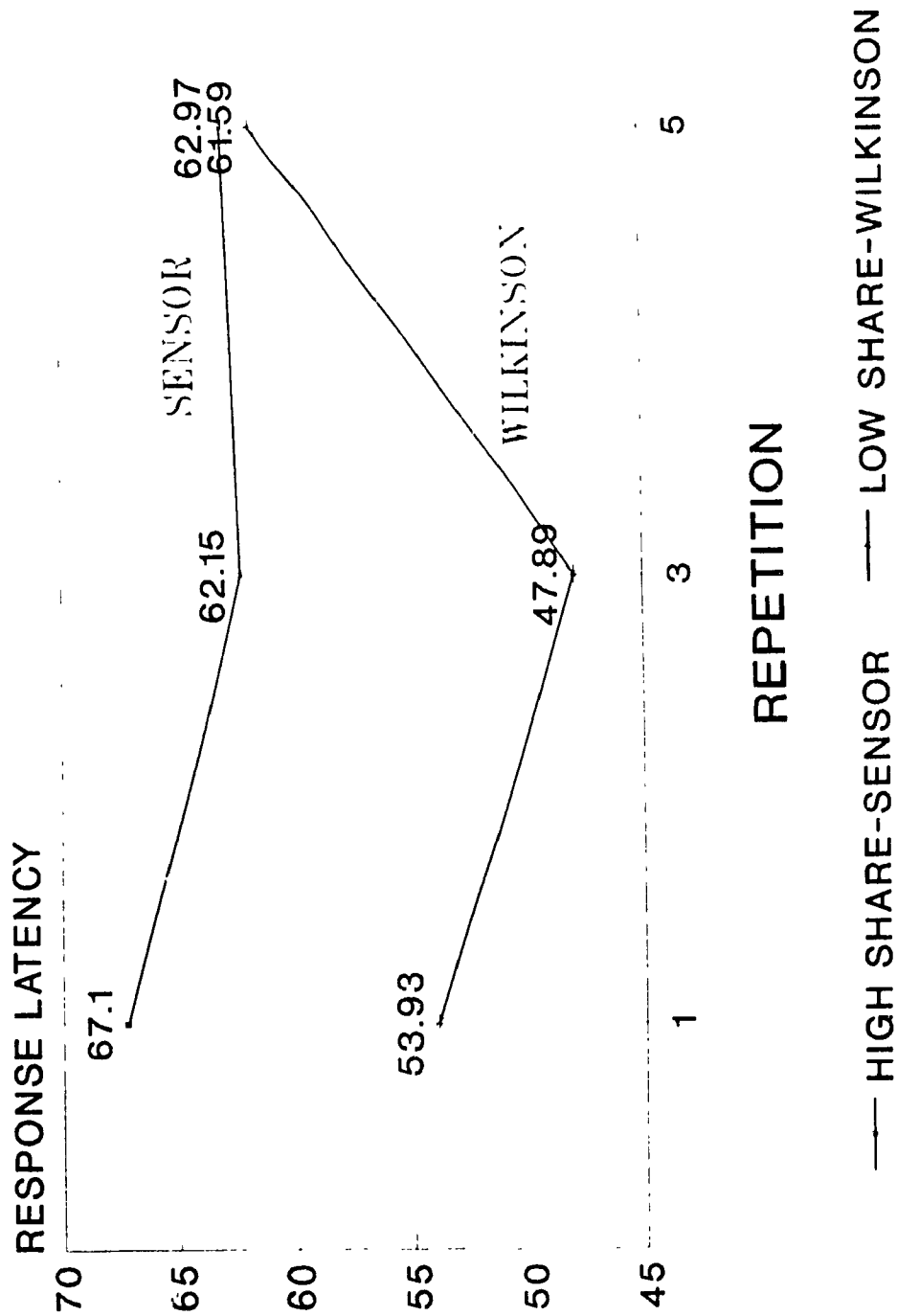


ACCESSIBILITY MEASURED IN RESP. LATENCY

APPENDIX 2

# RAZOR ACCESSIBILITY

## COMPETITION CONDITION

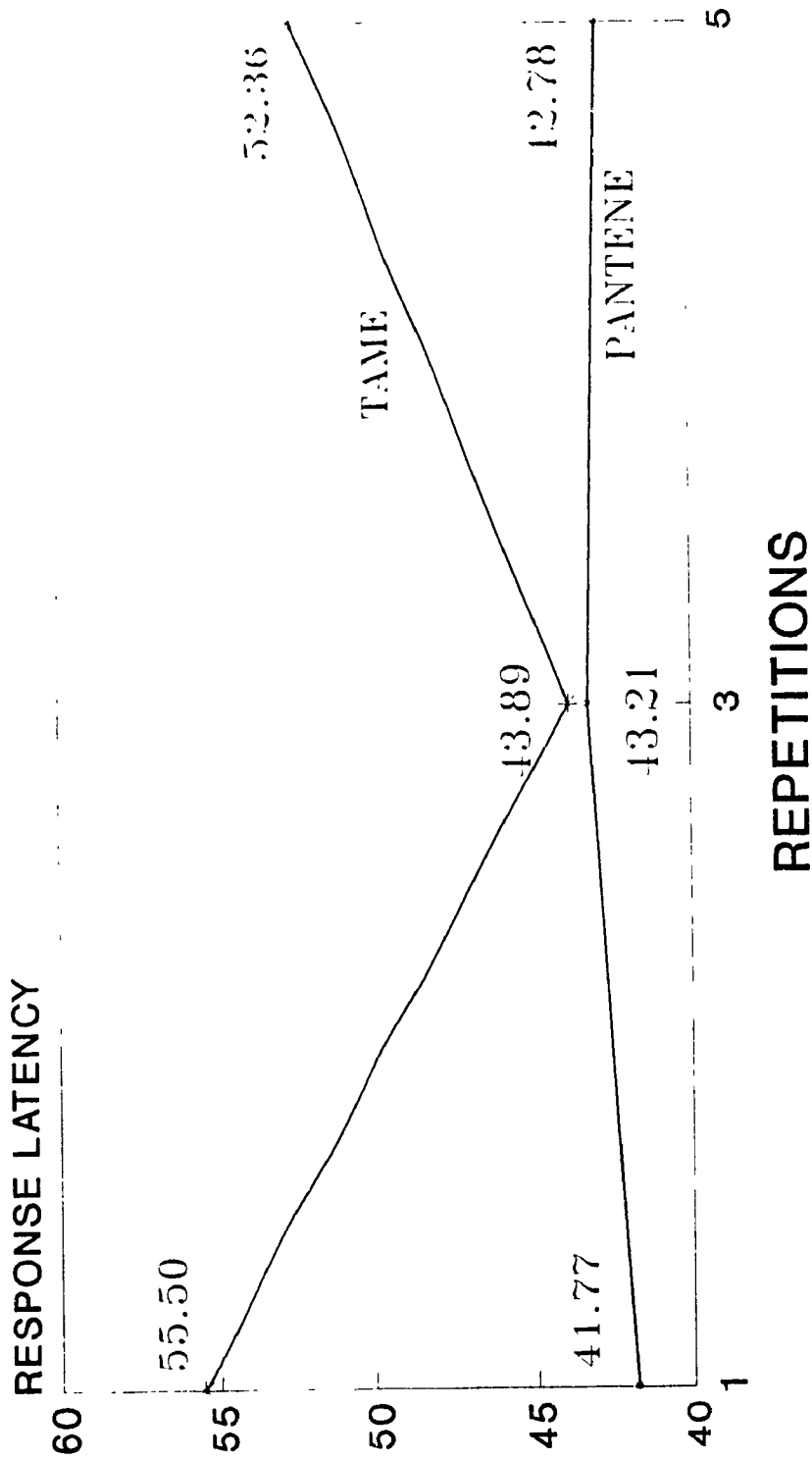


ACCESSIBILITY MEASURED IN RESP. LATENCY

APPENDIX 3

# SHAMPOO ACCESSIBILITY

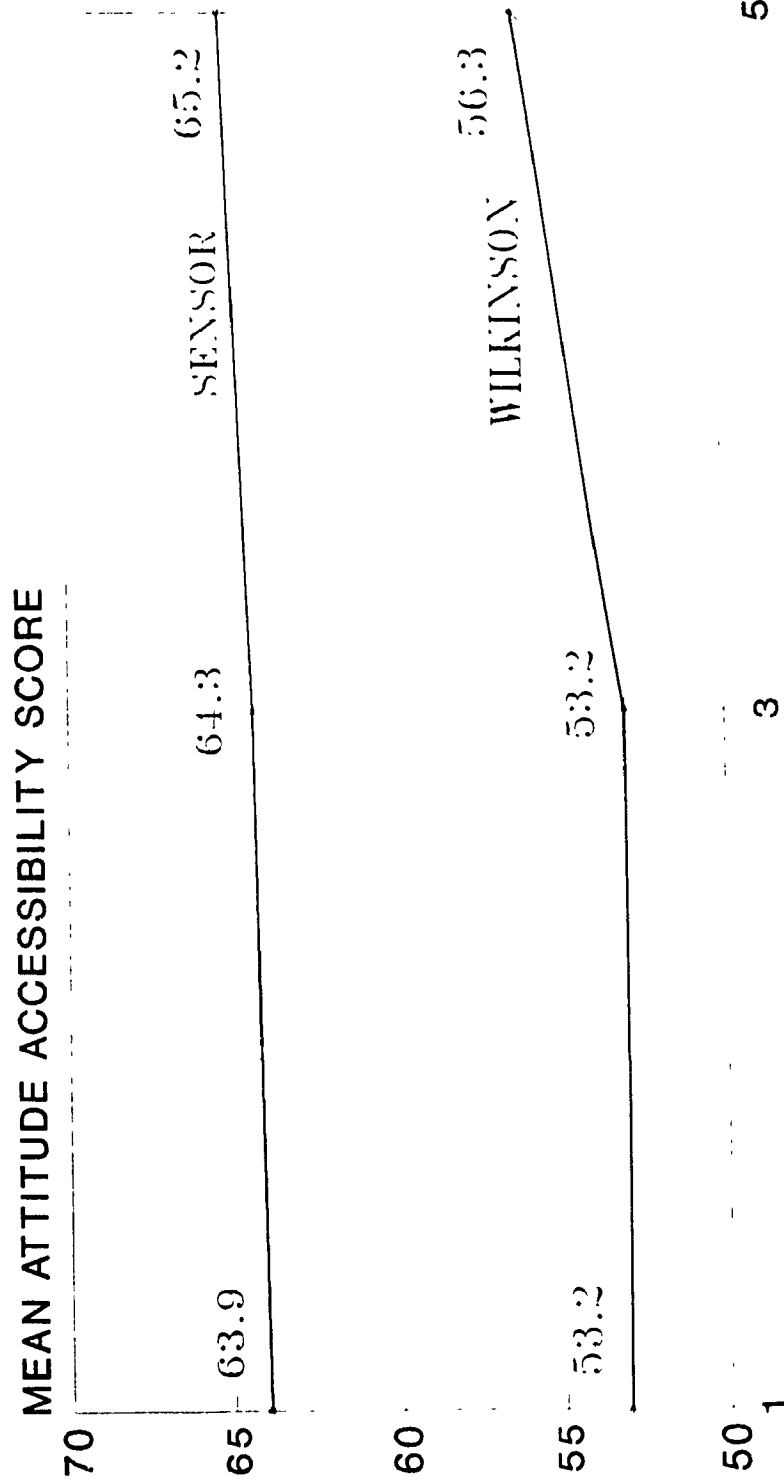
## COMPETITION CONDITION



—+— HIGH SHARE-PANTENE    -+ - LOW SHARE-TAME

ACCESSIBILITY MEASURED IN RESP. LATENCY

# RAZOR ATTITUDE ACCESSIBILITY MERGING OF NO COMPETITION & COMPETITION



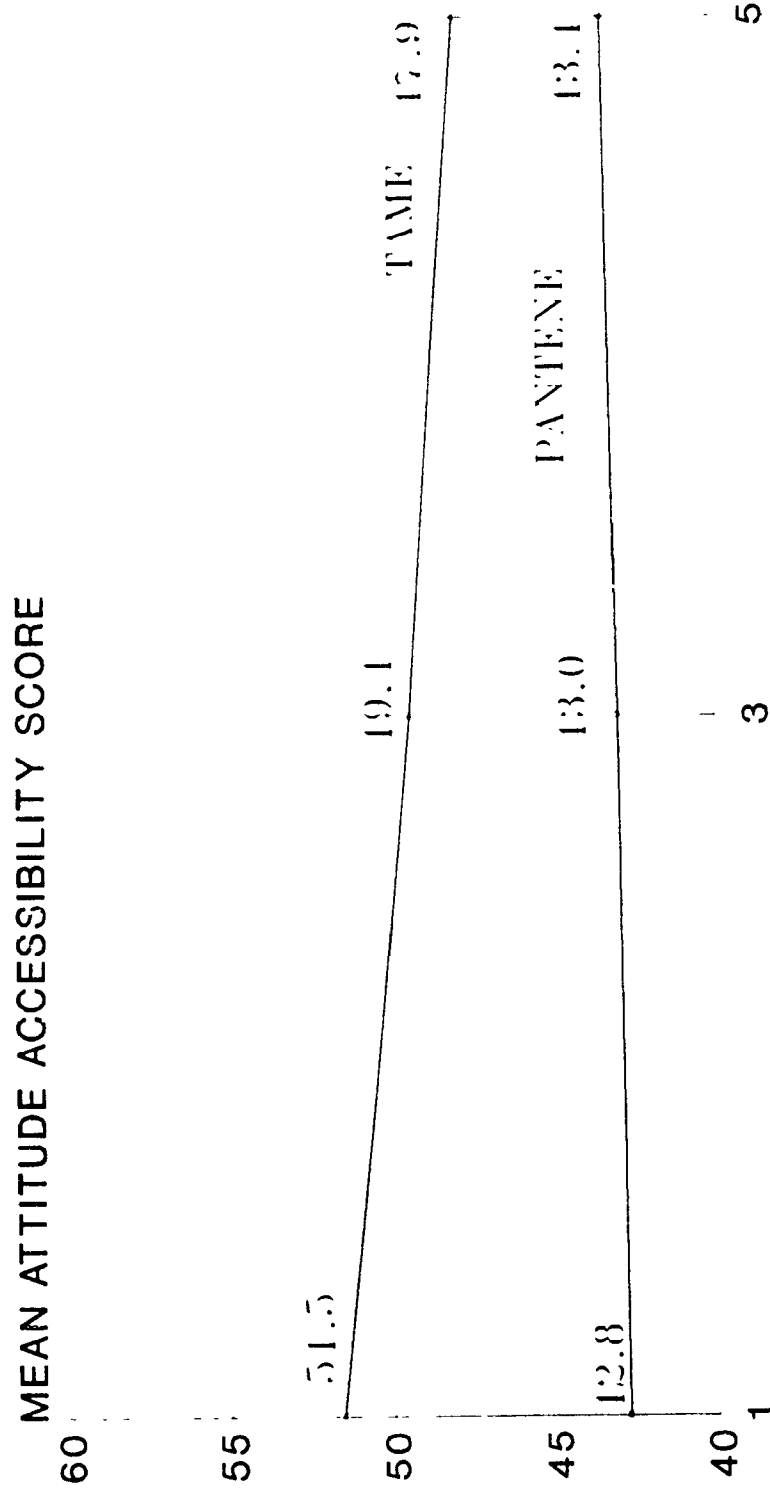
REPETITIONS

—•— HIGH SHARE-SENSOR    - - - LOW SHARE-WILKINSON

ACCESSIBILITY MEASURED IN RESP. LATENCY

# SHAMPOO ATTITUDE ACCESSIBILITY

## MERGING OF NO COMPETITION & COMPETITION



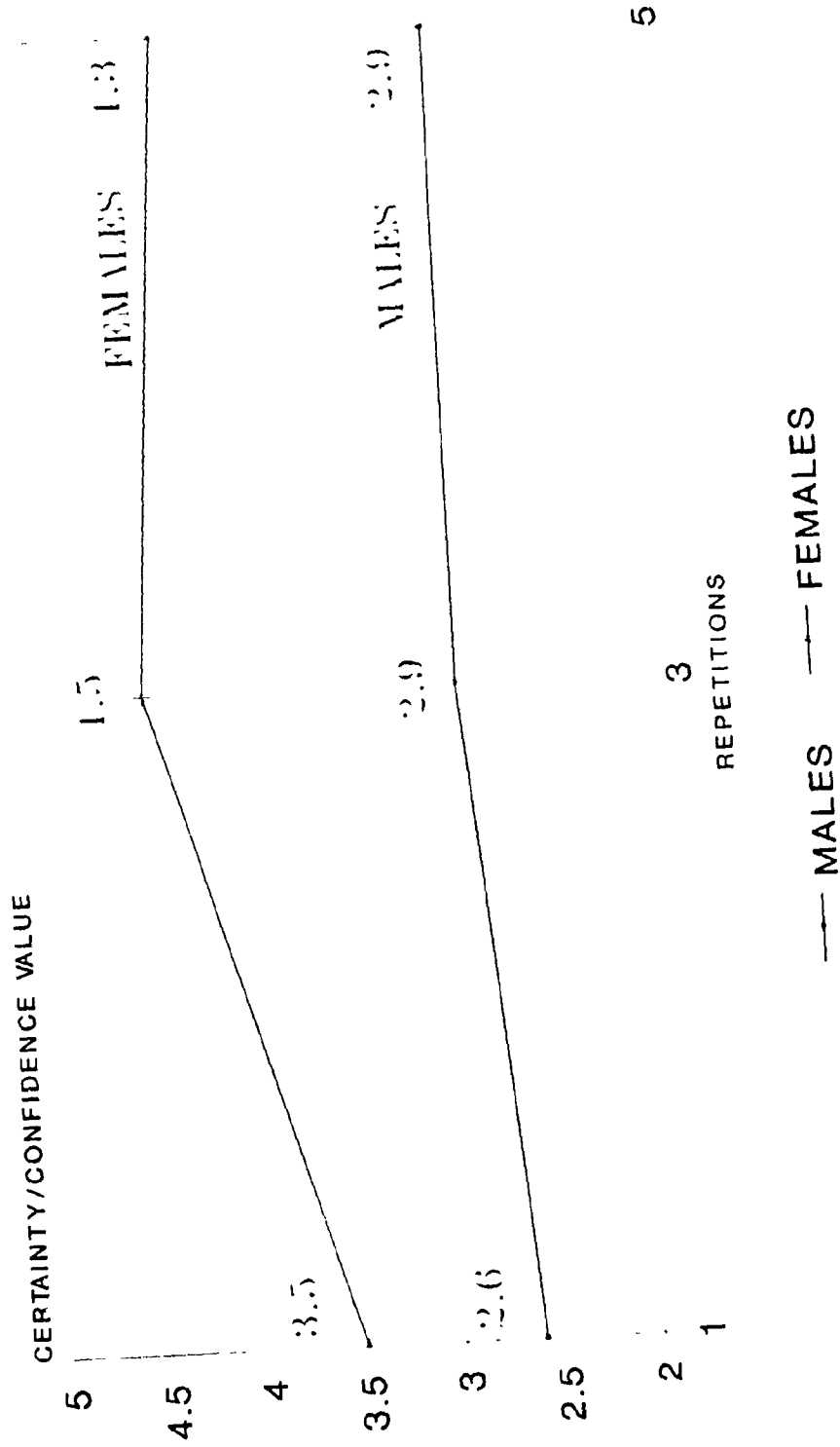
### REPETITIONS

— HIGH SHARF-PANTENE    —+— LOW SHARE-TAME

ACCESSIBILITY MEASURED IN RESP. LATENCY

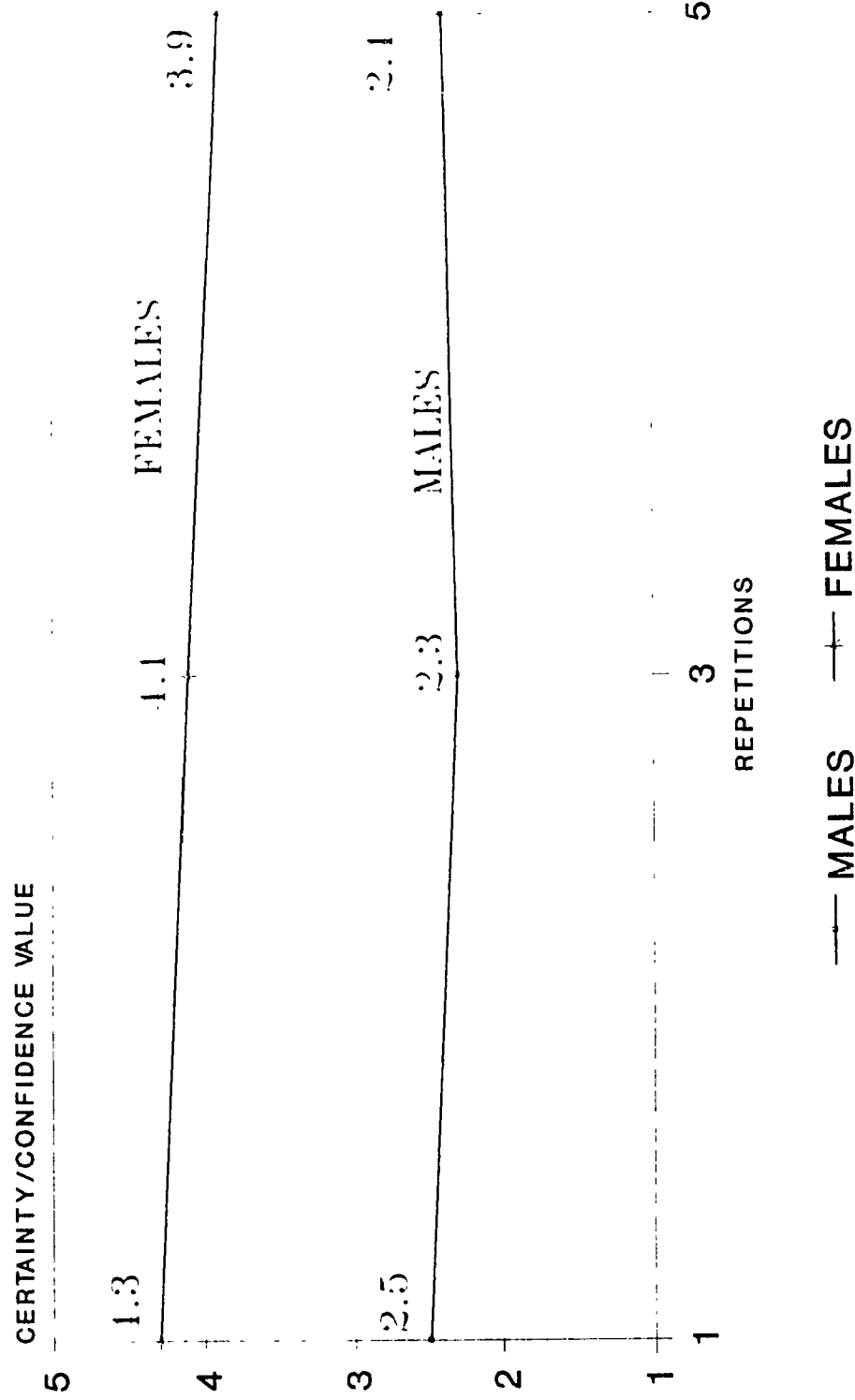
APPENDIX 6

# ATTITUDE CONFIDENCE (MALES VS. FEMALES) RAZOR CATEGORY-NO COMP.-HIGH SHARE



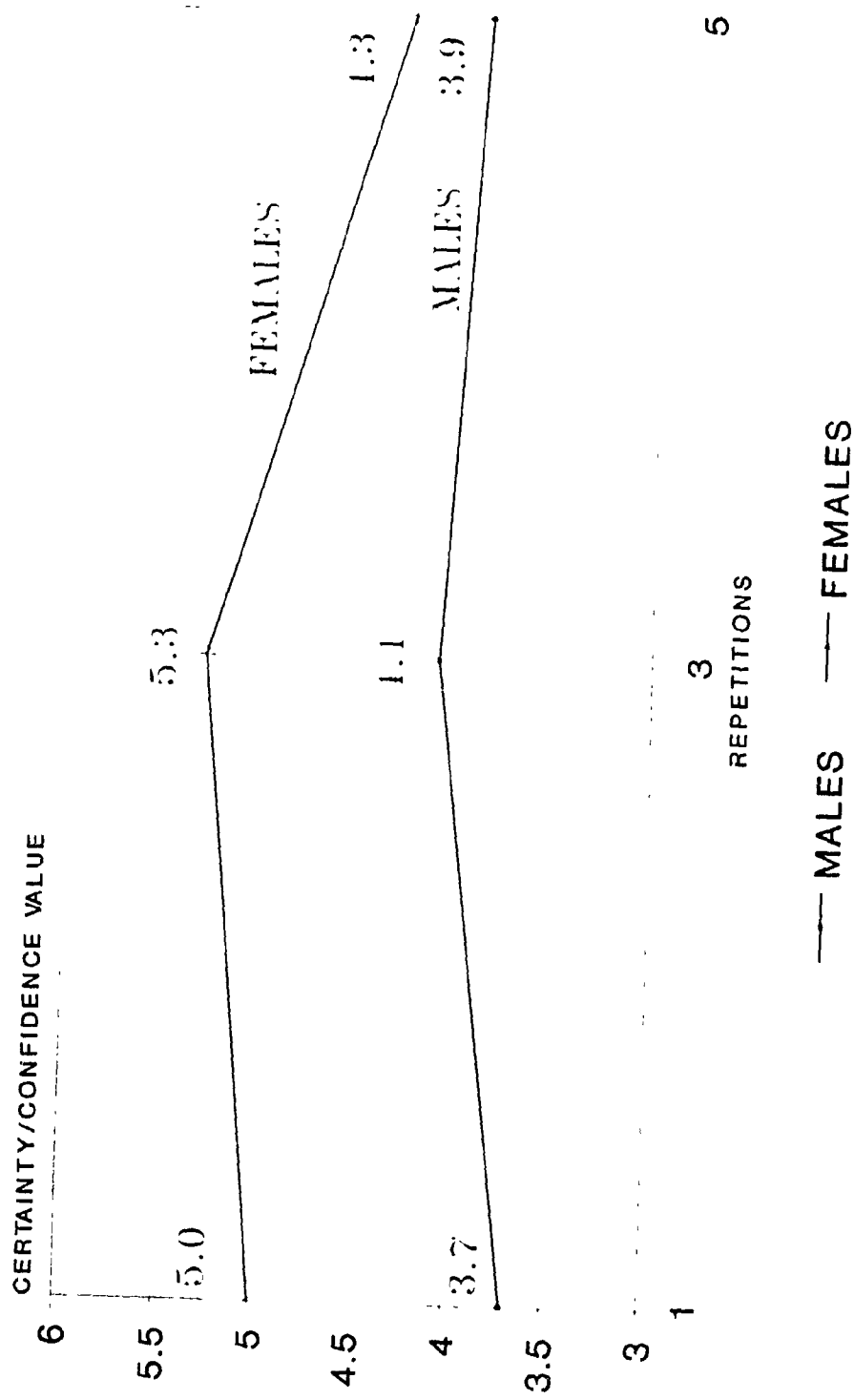
ON SCALE 1=VERY CONF. & 9=NOT CONF.  
 i.e bigger value = less confidence

# ATTITUDE CONFIDENCE (MALES & FEMALES) RAZOR CATEGORY-COMPETITION-HIGH SHARE



ON SCALE 1=VERY CONF. & 9=NOT CONF.  
SEX USED AS CO-VARIATE: F=.001

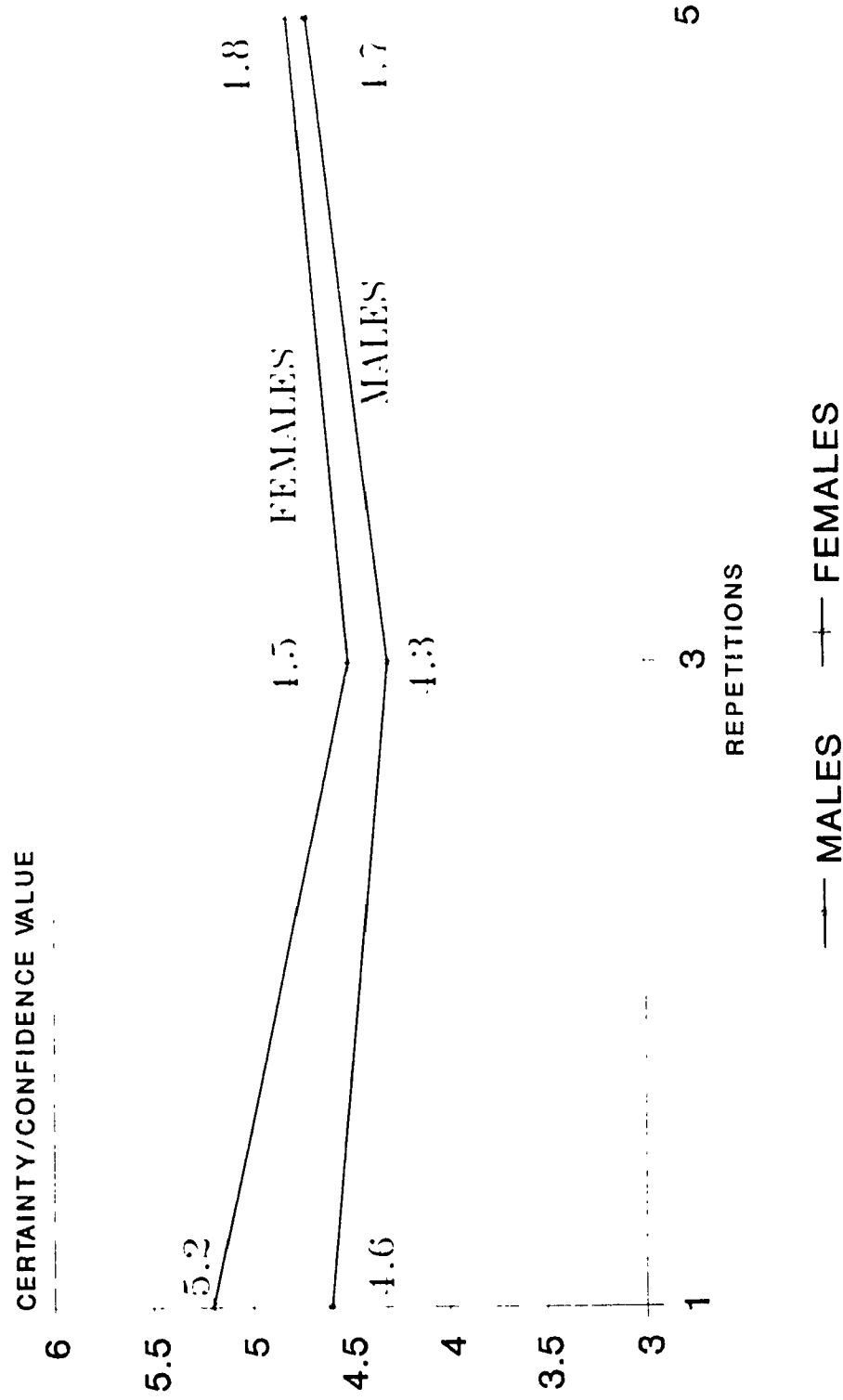
# ATTITUDE CONFIDENCE (MALES & FEMALES) RAZOR CATEGORY-COMPETITION-LOW SHARE



ON SCALE 1=VERY CONF. & 9=NOT CONF.  
SEX USED AS CO-VARIATE:  $F=0.001$



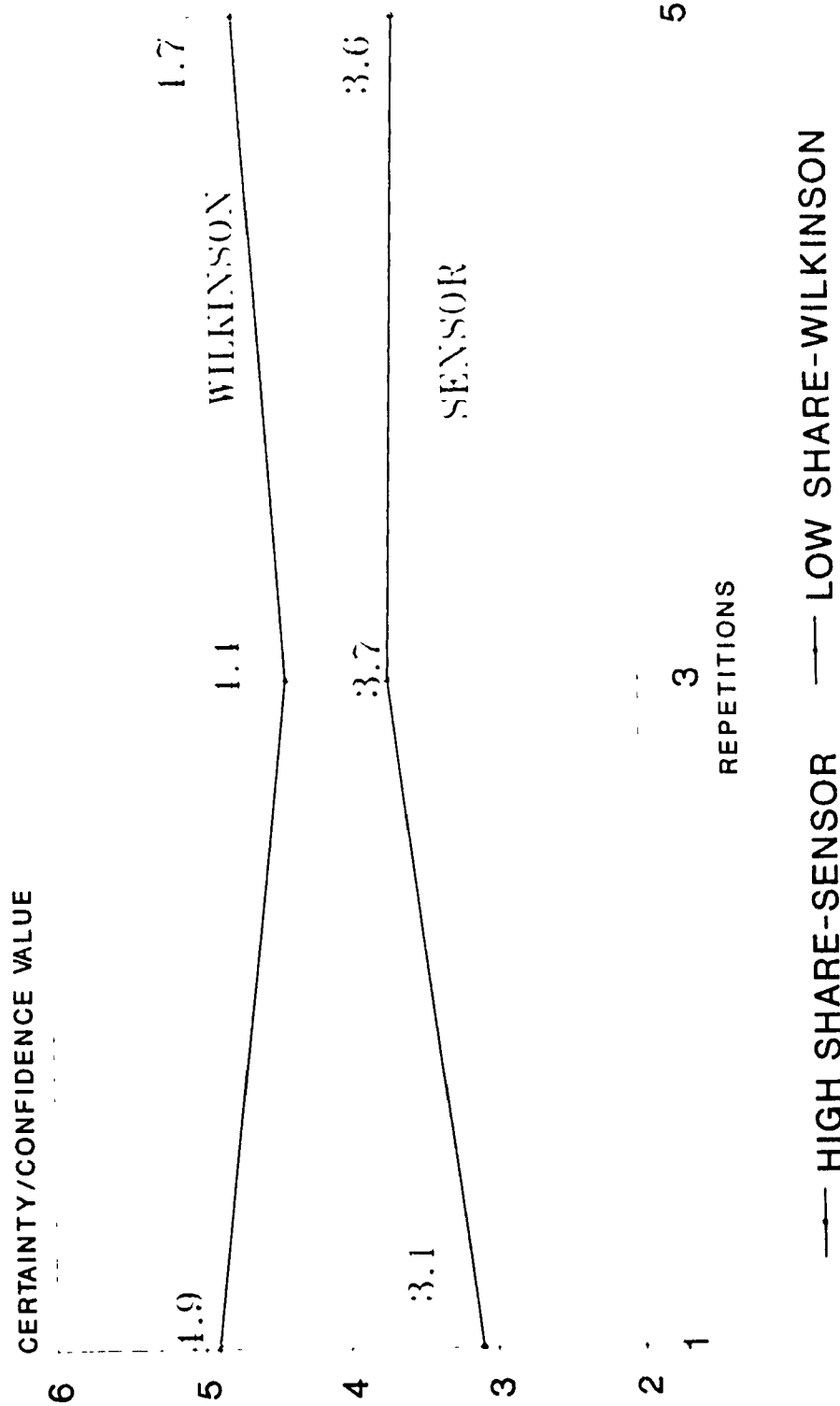
# ATTITUDE CONFIDENCE (MALES VS. FEMALES) RAZOR CATEGORY-NO COMP.-LOW SHARE



ON SCALE 1=VERY CONF. & 9=NOT CONF.  
i.e. bigger value = less confidence

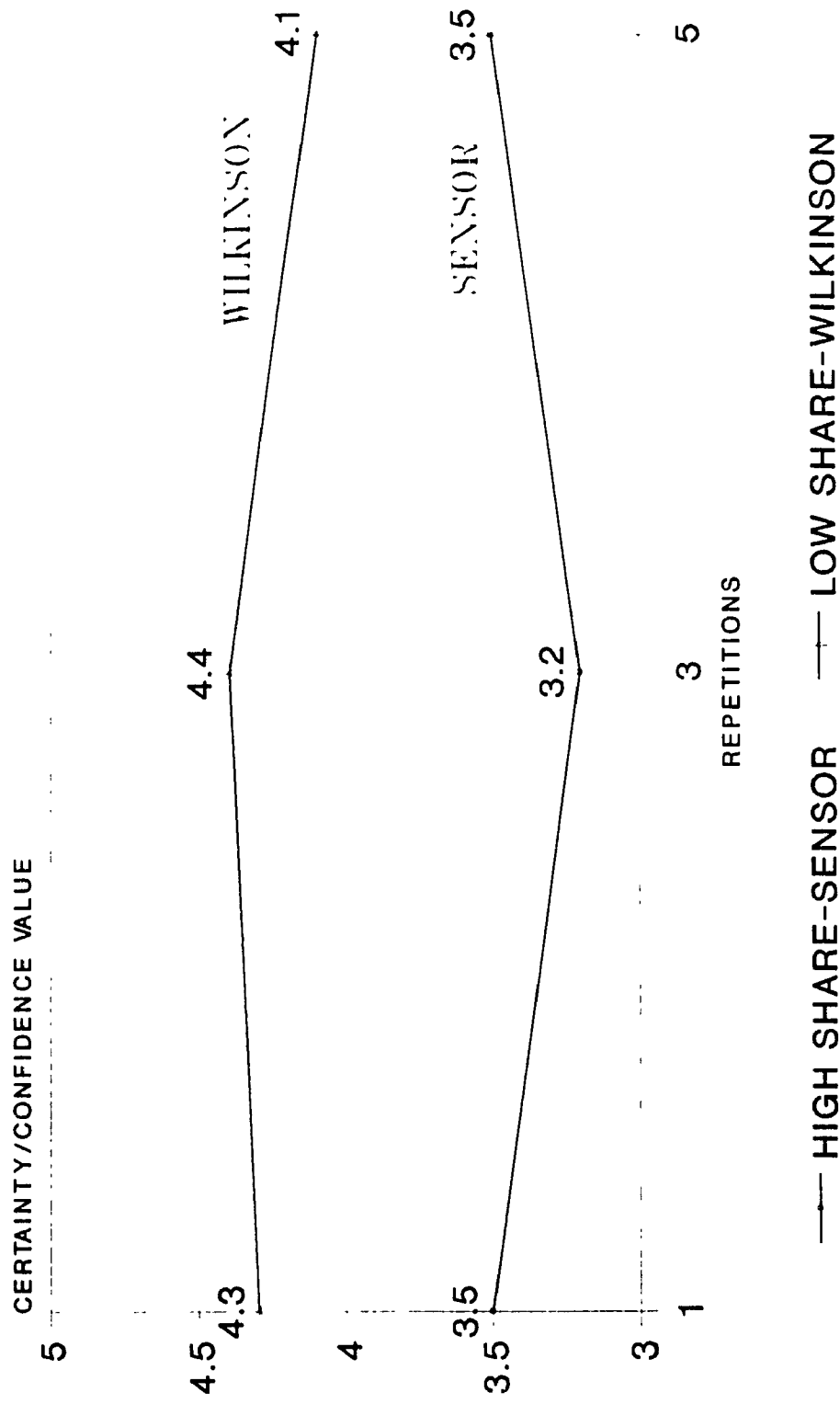
# ATTITUDE CONFIDENCE

## RAZOR CATEGORY-NO COMP.



ON SCALE 1=VERY CONF. & 9=NOT CONF.  
i.e. bigger value = less confidence

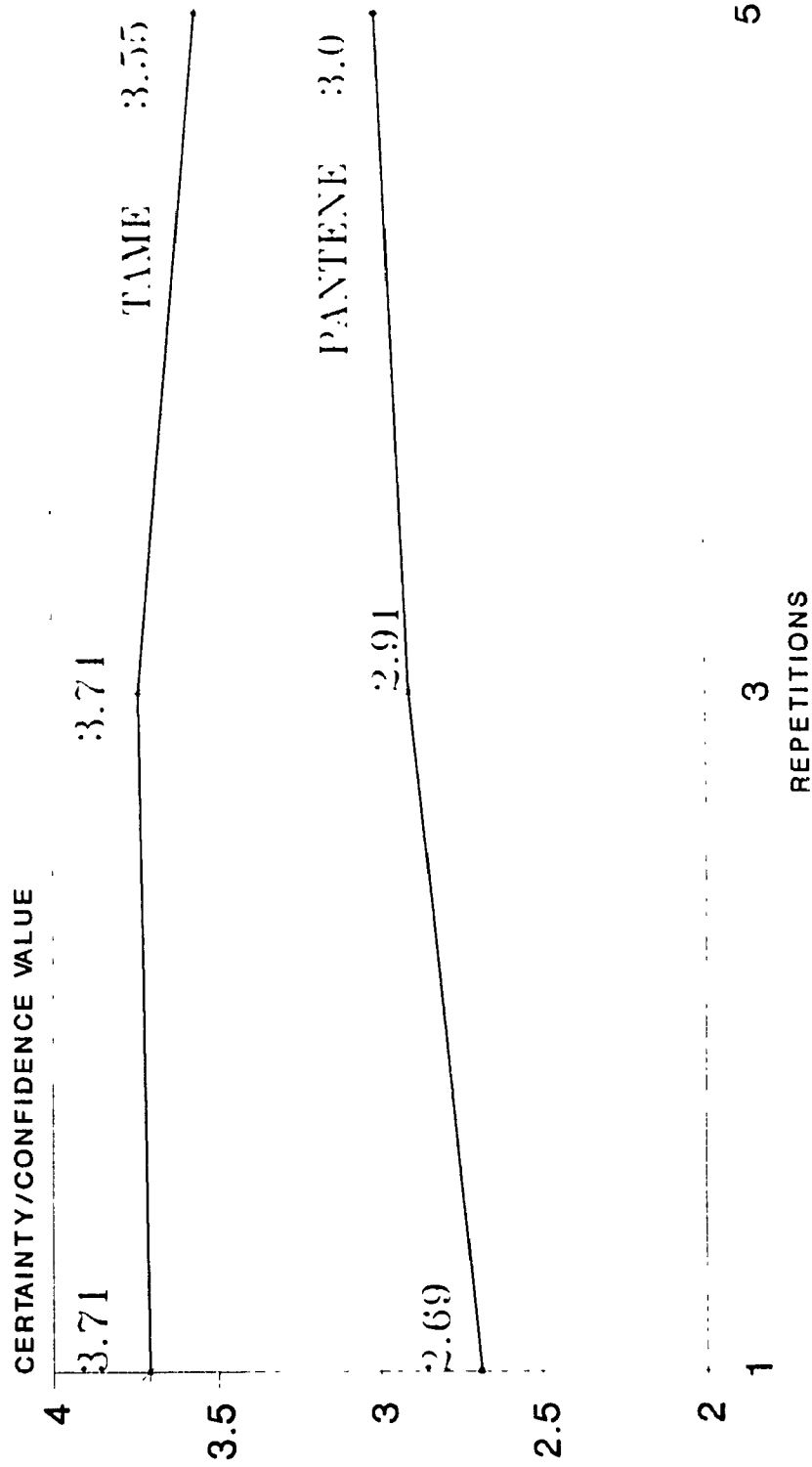
# ATTITUDE CONFIDENCE RAZOR CATEGORY-COMPETITION



ON SCALE 1=VERY CONF. & 9=NOT CONF.  
SEX USED AS CO-VARIATE: F=.001

# ATTITUDE CONFIDENCE

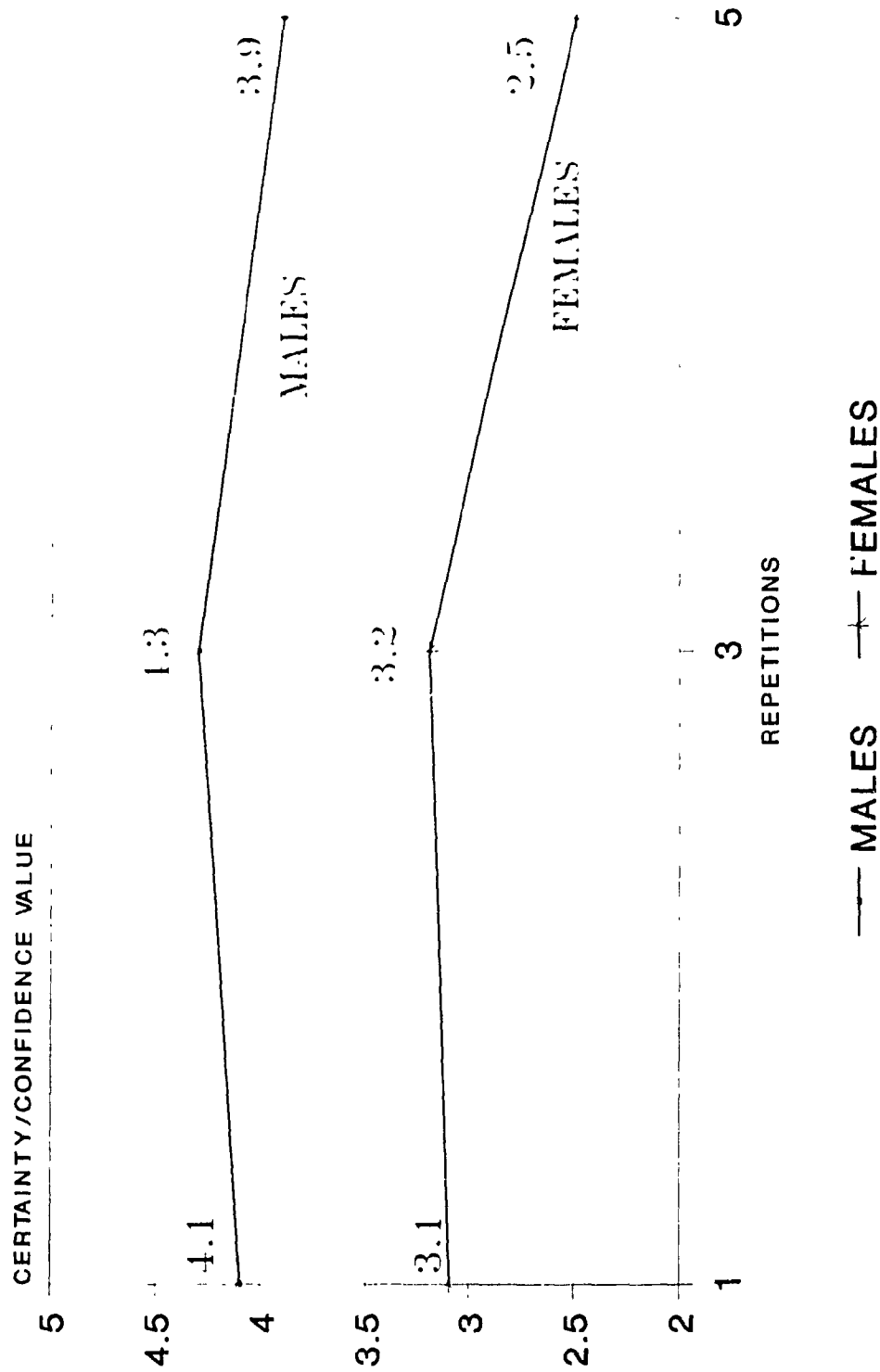
## SHAMPOO CATEGORY-NO COMP.



— HIGH SHARE-PANTENE — LOW SHARE-TAME

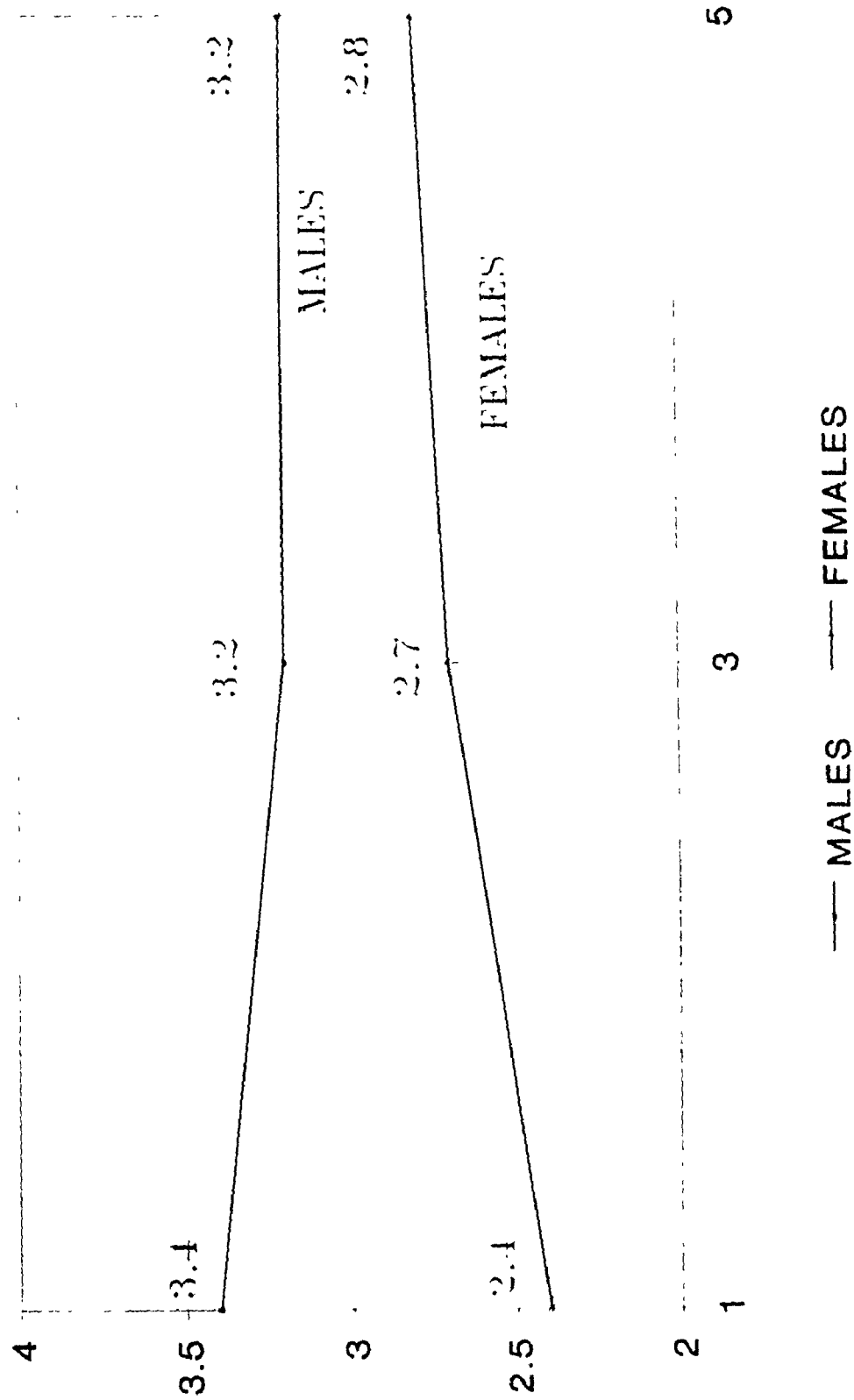
ON SCALE 1=VERY CONF. & 9=NOT CONF.

# ATTITUDE CONFIDENCE (MALES VS. FEMALES) SHAMPOO CATEGORY-NO COMP.-LOW SHARE



ON SCALE 1=VERY CONF. & 9=NOT CONF.

# ATTITUDE CONFIDENCE (MALES VS. FEMALES) SHAMPOO CATEGORY-NO COMP.-HIGH SHARE



ON SCALE 1=VERY CONF. & 9=NOT CONF.

# CORRELATIONS OF LATENCY WITH CONFIDENCE

CO-EFFICIENTS	1 REPETITION		3 REPETITIONS		5 REPETITIONS	
	COMPETITION CELL #0	NO COMPETITION CELL #3	COMPETITION CELL #5	NO COMPETITION CELL #7	COMPETITION CELL #9	NO COMPETITION CELL #11
CORRELATION CO-EFFICIENTS OF PANTENE SIGNIFICANCE LEVEL	- 2172 104 - C	- 3154 024 - B	- 0857 03 - B	- 0247 434	- 4086 004 - A	- 0940 003 - A
CORRELATION CO-EFFICIENT OF SENSOR SIGNIFICANCE LEVEL	- 3237 028 - C	- 216 216	- 2074 103 - C	- 2430 085 - C	- 1857 104 - C	- 2857 088 - C
CORRELATION CO-EFFICIENT OF WILKINSON SIGNIFICANCE LEVEL	0923 372	- 0122 474	- 2470 085 - C	- 2786 032 - B	0431 004 - A	- 0304 107 - C
CORRELATION CO-EFFICIENT OF TAME SIGNIFICANCE LEVEL	2517 094 - C	- 0238 446	- 1488 257	- 1136 025 - B	- 0792 331	- 0491 364

NOTE LEVEL OF SIGNIFICANCE =

- A) P < 01
- B) P < 05
- C) P < 10

APPENDIX 16

# CORRELATIONS OF LATENCY WITH CONFIDENCE USING SEX AS CO-VARIATE

CO-EFFICIENTS	1 REPETITION		3 REPETITIONS		5 REPETITIONS	
	COMPETITION CELL #0	NO COMPETITION CELL #3	COMPETITION CELL #5	NO COMPETITION CELL #7	COMPETITION CELL #9	NO COMPETITION CELL #11
CORRELATION CO-EFFICIENTS OF PANTENE SIGNIFICANCE LEVEL	+ 2094 181	+ 2024 062 - B	+ 0880 03 - B	+ 0599 360	+ 4000 008 - A	+ 0838 033 - B
CORRELATION CO-EFFICIENT OF SENSOR SIGNIFICANCE LEVEL	- 3194 085 - C	- 1999 126	- 2483 049 - C	- 2566 089 - C	- 2203 092 - C	- 2235 104 - C
CORRELATION CO-EFFICIENT OF WILKINSON SIGNIFICANCE LEVEL	- 1486 310	- 0032 483	- 2460 108 - C	- 2973 055 - B	- 0389 047 - B	- 0132 477
CORRELATION CO-EFFICIENT OF TAME SIGNIFICANCE LEVEL	- 2858 105 - C	- 0122 473	+ 1116 290	- 1144 027 - B	- 0785 341	+ 1092 283

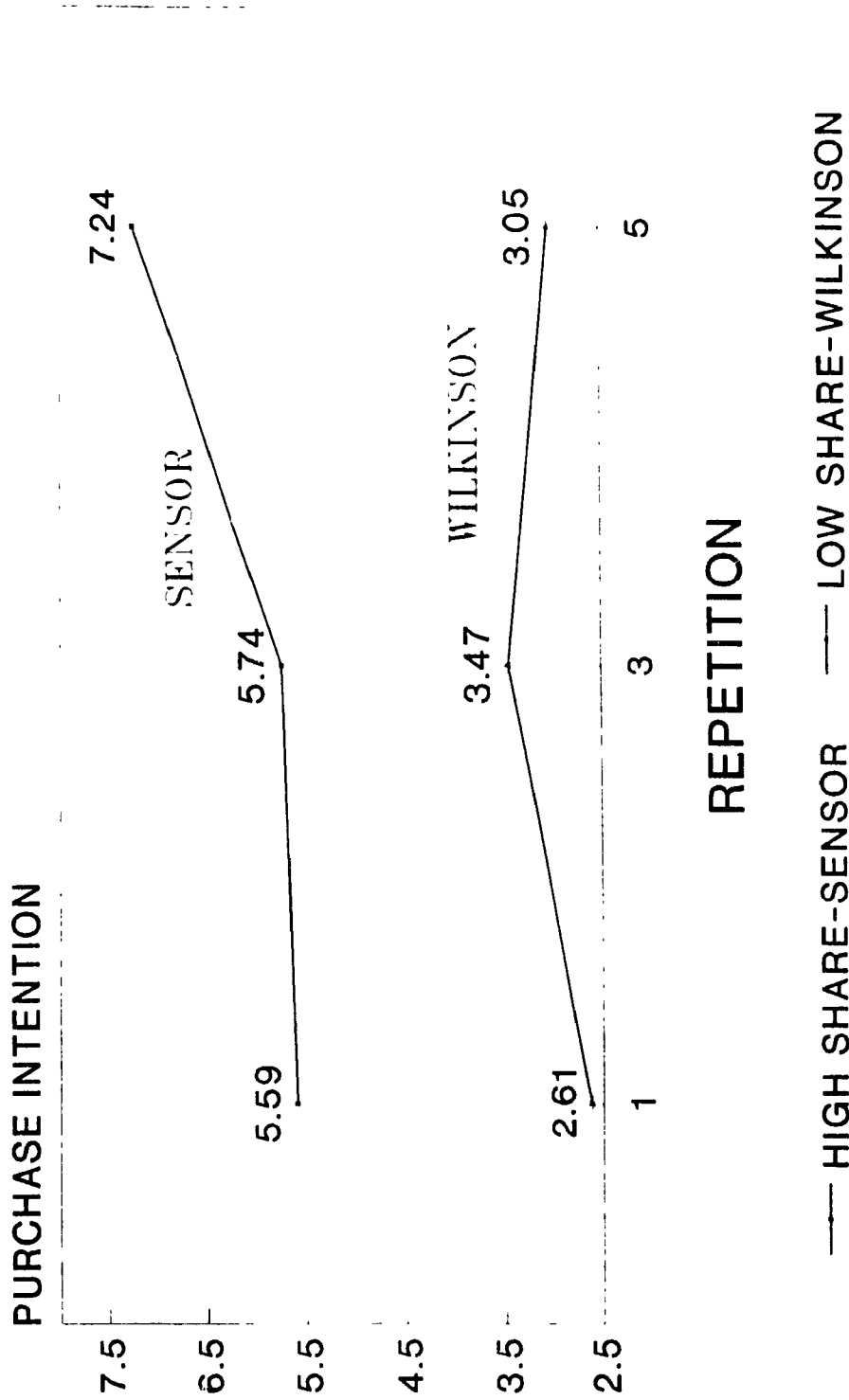
NOTE LEVEL OF SIGNIFICANCE =

- A) P < 01
- B) P < 05
- C) P < 10

APPENDIX 16A

# PURCHASE INTENTIONS FOR RAZORS

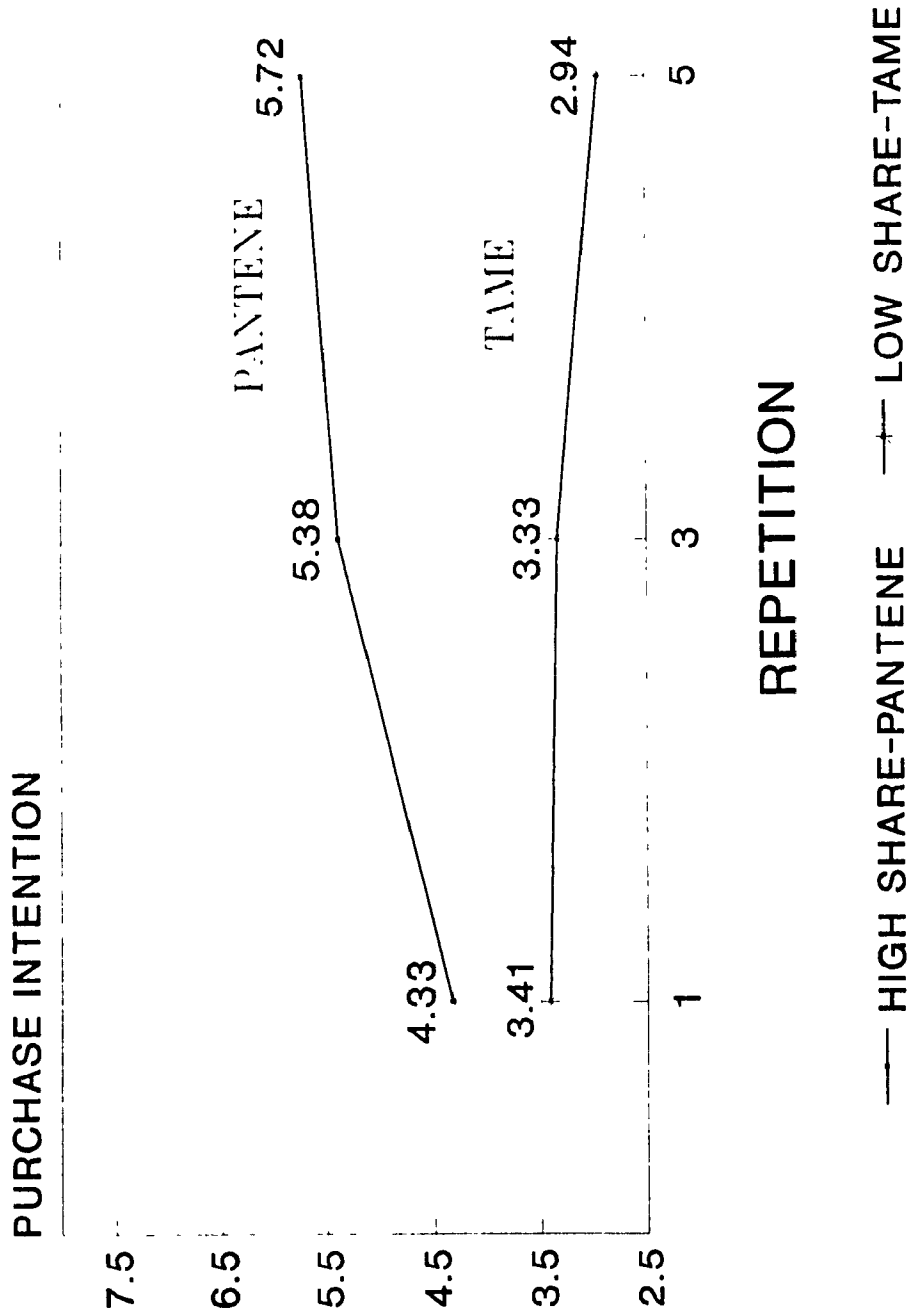
## COMPETITION CONDITION



ON A SCALE OF 1=WOULD NOT PURCHASE TO  
9=WOULD DEFINITELY PURCHASE

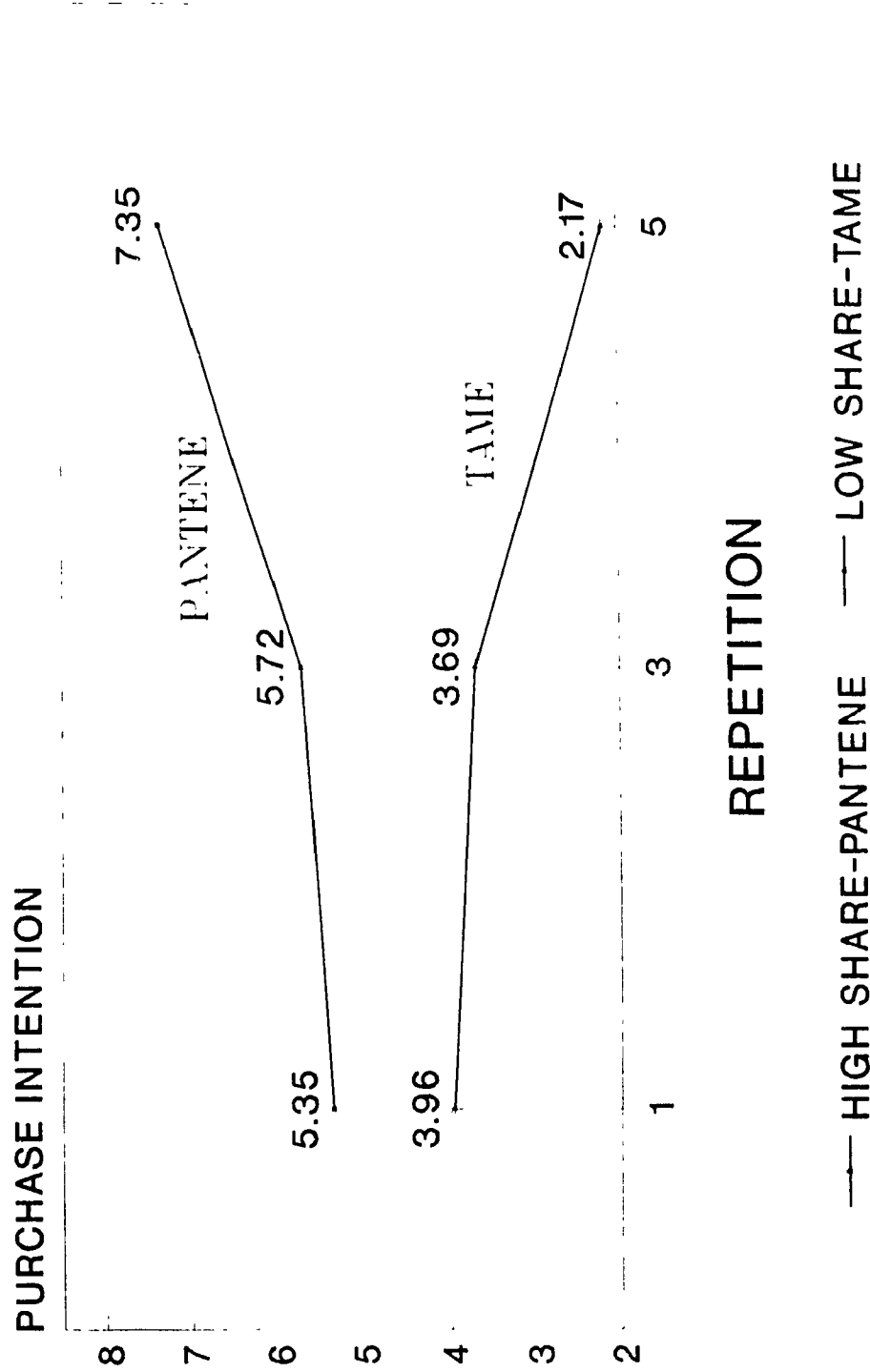


# MALE PURCHASE INTENTIONS FOR SHAMPOOS COMPETITION CONDITION



ON A SCALE OF 1=WOULD NOT PURCHASE TO  
9=WOULD DEFINITELY PURCHASE

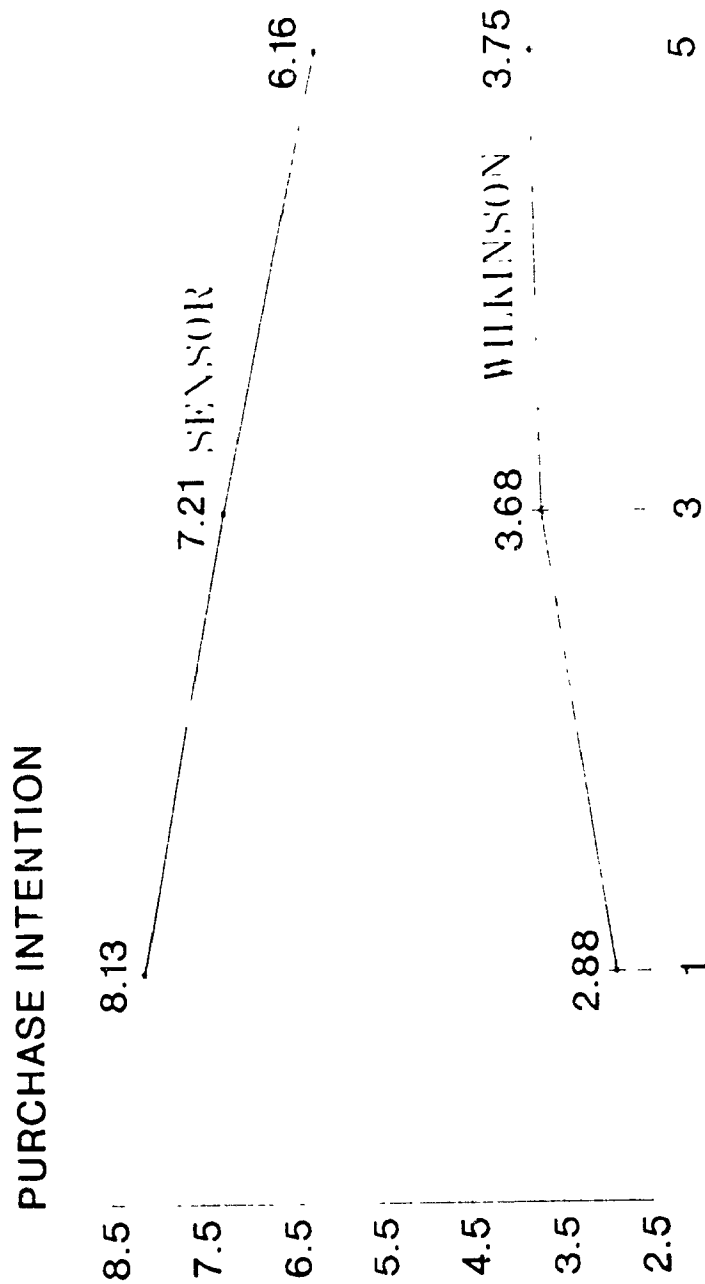
# FEMALE PURCHASE INTENTIONS FOR SHAMPOO COMPETITION CONDITION



ON A SCALE OF 1=WOULD NOT PURCHASE TO  
9=WOULD DEFINITELY PURCHASE

# MALE PURCHASE INTENTIONS FOR RAZORS

## NO COMPETITION CONDITION



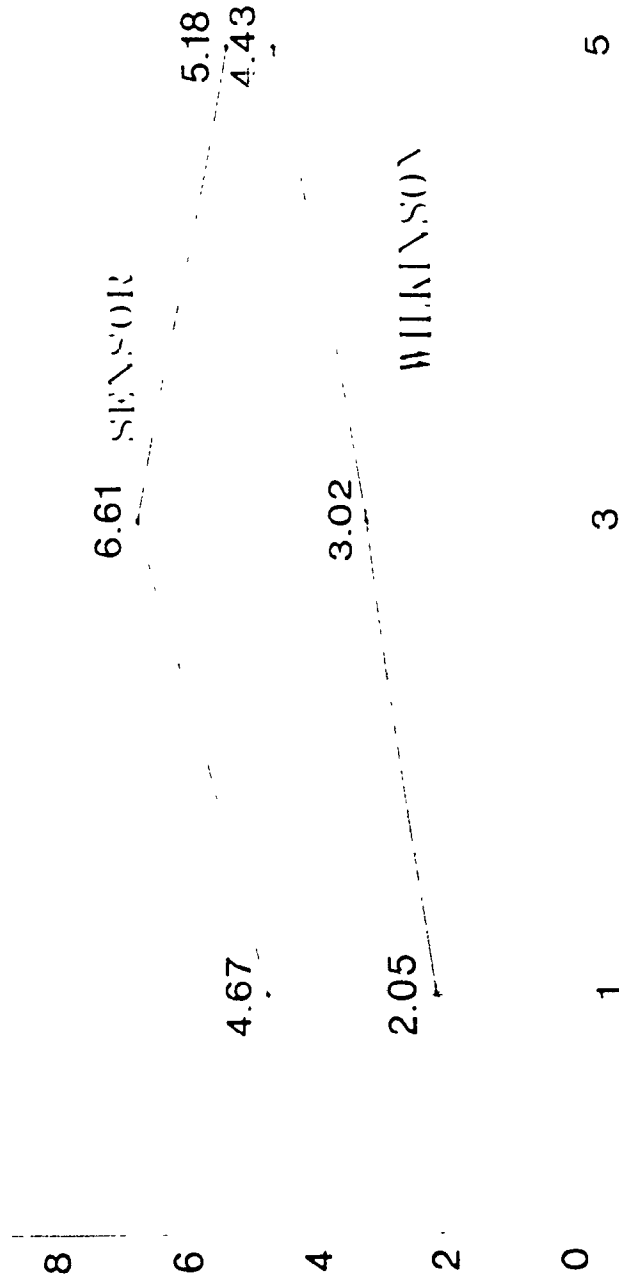
## REPETITION

— HIGH SHARE-SENSOR    - - - LOW SHARE-WILKINSON

ON A SCALE OF 1-WOULD NOT PURCHASE TO  
9-WOULD DEFINITELY PURCHASE

# FEMALE PURCHASE INTENTIONS FOR RAZORS NO COMPETITION CONDITION

PURCHASE INTENTION



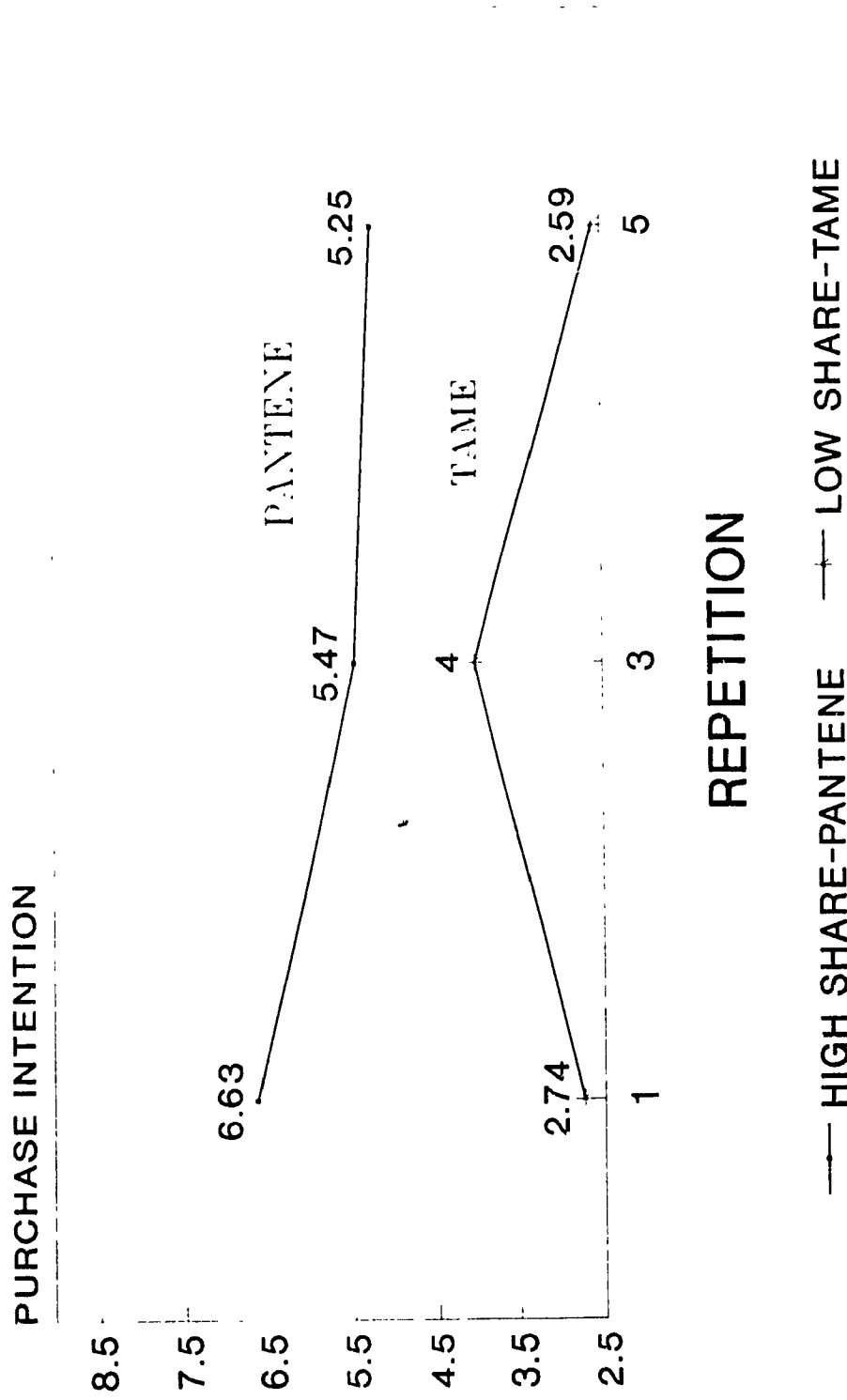
REPETITION

— HIGH SHARE-SENSOR — LOW SHARE-WILKINSON

ON A SCALE OF 1=WOULD NOT PURCHASE TO  
9=WOULD DEFINITELY PURCHASE

# MALE PURCHASE INTENTIONS FOR SHAMPOOS

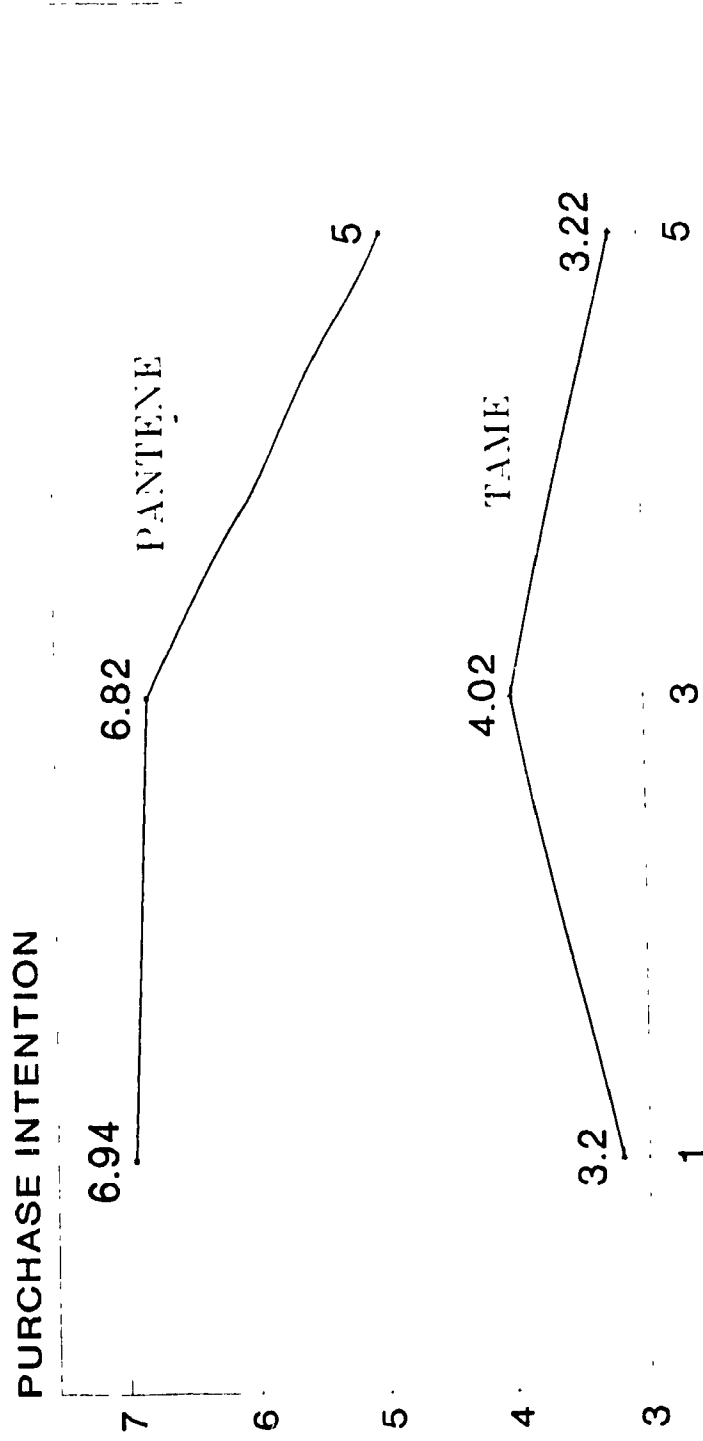
## NO COMPETITION CONDITION



ON A SCALE OF 1=WOULD NOT PURCHASE TO  
9=WOULD DEFINITELY PURCHASE

# FEMALE PURCHASE INTENTIONS FOR SHAMPOOS

## NO COMPETITION CONDITION



## REPETITION

— HIGH SHARE-PANTENE — LOW SHARE-TAME

ON A SCALE OF 1=WOULD NOT PURCHASE TO  
9=WOULD DEFINITELY PURCHASE

# CORRELATIONS OF ATTITUDES WITH BEHAVIOUR CONTROLLING FOR SEX

CO-EFFICIENTS	1 REPETITION		3 REPETITIONS		5 REPETITIONS	
	COMPETITION CELL #0	NO COMPETITION CELL #3	COMPETITION CELL #5	NO COMPETITION CELL #7	COMPETITION CELL #9	NO COMPETITION CELL #11
CORRELATION CO-EFFICIENTS OF PANTENE SIGNIFICANCE LEVEL	+ 5286 .008 - A	+ 6877 .000 - A	+ 0 6482 .000 - A	+ 5381 .000 - A	+ 4556 .002 - A	+ 8868 .000 - A
CORRELATION CO-EFFICIENT OF SENSOR SIGNIFICANCE LEVEL	CELL #0 + 2459 .070 - C	CELL #3 + 2987 .034 - B	CELL #5 + 2618 .046 - B	CELL #7 + 6131 .000 - A	CELL #9 + 4861 .001 - A	CELL #11 + 6282 .000 - A
CORRELATION CO-EFFICIENT OF WILKINSON SIGNIFICANCE LEVEL	CELL #1 + 1579 287	CELL #4 + 3228 .036 - B	CELL #6 + 3982 .022 - B	CELL #8 + 6528 .000 - A	CELL #10 + 6041 .000 - A	CELL #12 + 5479 .032 - B
CORRELATION CO-EFFICIENT OF TAME SIGNIFICANCE LEVEL	CELL #1 + 5478 .014 - A	CELL #4 + 4852 .003 - A	CELL #6 + 3577 .035 - B	CELL #8 + 7307 .000 - A	CELL #10 + 6132 .000 - A	CELL #12 + 3740 .025 - B

NOTE: LEVEL OF SIGNIFICANCE =

- A)  $P < .01$
- B)  $P < .05$
- C)  $P < .10$

# CORRELATIONS OF BEHAVIOUR WITH CONFIDENCE CONTROLLING FOR SEX

CO-EFFICIENTS	1 REPETITION		3 REPETITIONS		5 REPETITIONS	
	COMPEITION CELL #0	NO COMPEITION CELL #3	COMPEITION CELL #5	NO COMPEITION CELL #7	COMPEITION CELL #9	NO COMPEITION CELL #11
CORRELATION CO-EFFICIENTS OF PANTENE SIGNIFICANCE LEVEL	- 3282 000 - C	3619 000 - C	3163 007 - B	3184 000 - B	1961 070 - B	2207 100 - C
CORRELATION CO-EFFICIENT OF SENSOR SIGNIFICANCE LEVEL	- 1877 004 - C	- 2227 080 - C	- 1520 100 - C	- 3242 004 - B	- 2205 040 - B	- 1802 104 - C
CORRELATION CO-EFFICIENT OF WILKINSON SIGNIFICANCE LEVEL	+ 1812 259	+ 1477 210	+ 1003 313	- 1207 206	- 4152 007 - A	- 1710 101 - B
CORRELATION CO-EFFICIENT OF TIME SIGNIFICANCE LEVEL	+ 0659 408	+ 2022 142	+ 1663 208	1064 249	- 3070 039 - B	1209 070 - C

NOTE LEVEL OF SIGNIFICANCE =  
 A) P < 01  
 B) P < 05  
 C) P < 10

## APPENDIX 18

# CORRELATIONS OF BEHAVIOUR WITH LATENCY CONTROLLING FOR SEX

CO-EFFICIENTS	1 REPETITION		3 REPETITIONS		5 REPETITIONS	
	COMPEITION CELL #0	NO COMPEITION CELL #3	COMPEITION CELL #5	NO COMPEITION CELL #7	COMPEITION CELL #9	NO COMPEITION CELL #11
CORRELATION CO-EFFICIENTS OF PANTENE SIGNIFICANCE LEVEL	- 1054 237	- 2230 090 - C	- 0896 296	- 2295 006 - C	- 0074 482	- 3145 032 - B
CORRELATION CO-EFFICIENT OF SENSOR SIGNIFICANCE LEVEL	0628 413	2511 387 - C	- 2454 350	- 2625 061 - C	1723 153	3849 022 - B
CORRELATION CO-EFFICIENT OF WILKINSON SIGNIFICANCE LEVEL	- 1142 346	- 0045 482	1341 248	- 3132 006 - C	0831 320	3135 072 - C
CORRELATION CO-EFFICIENT OF TIME SIGNIFICANCE LEVEL	3477 421	3426 410	2584 644	- 7136 482	2254 131	3225 041 - B

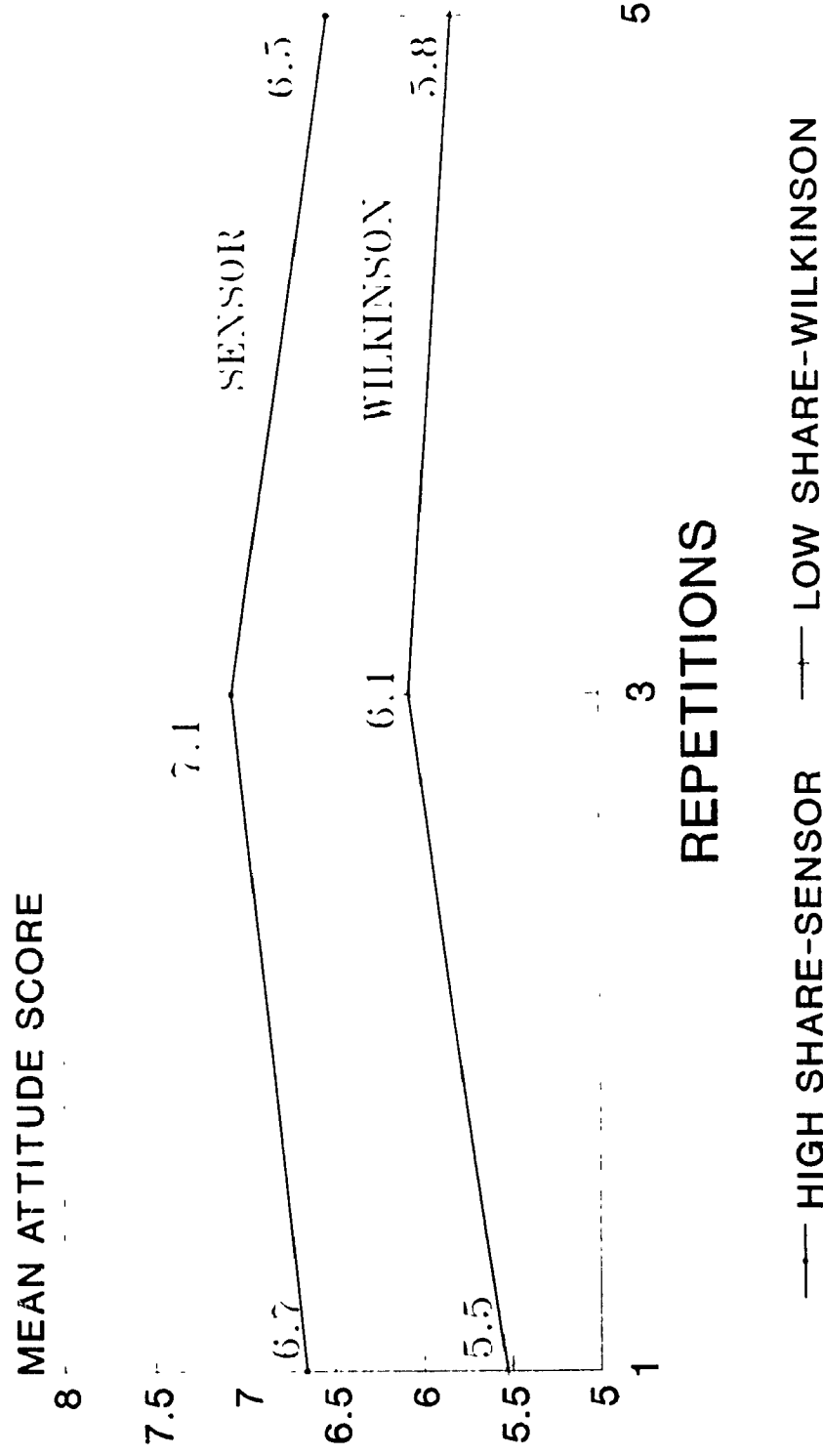
NOTE LEVEL OF SIGNIFICANCE =  
 A) P < 01  
 B) P < 05  
 C) P < 10

## APPENDIX 18A



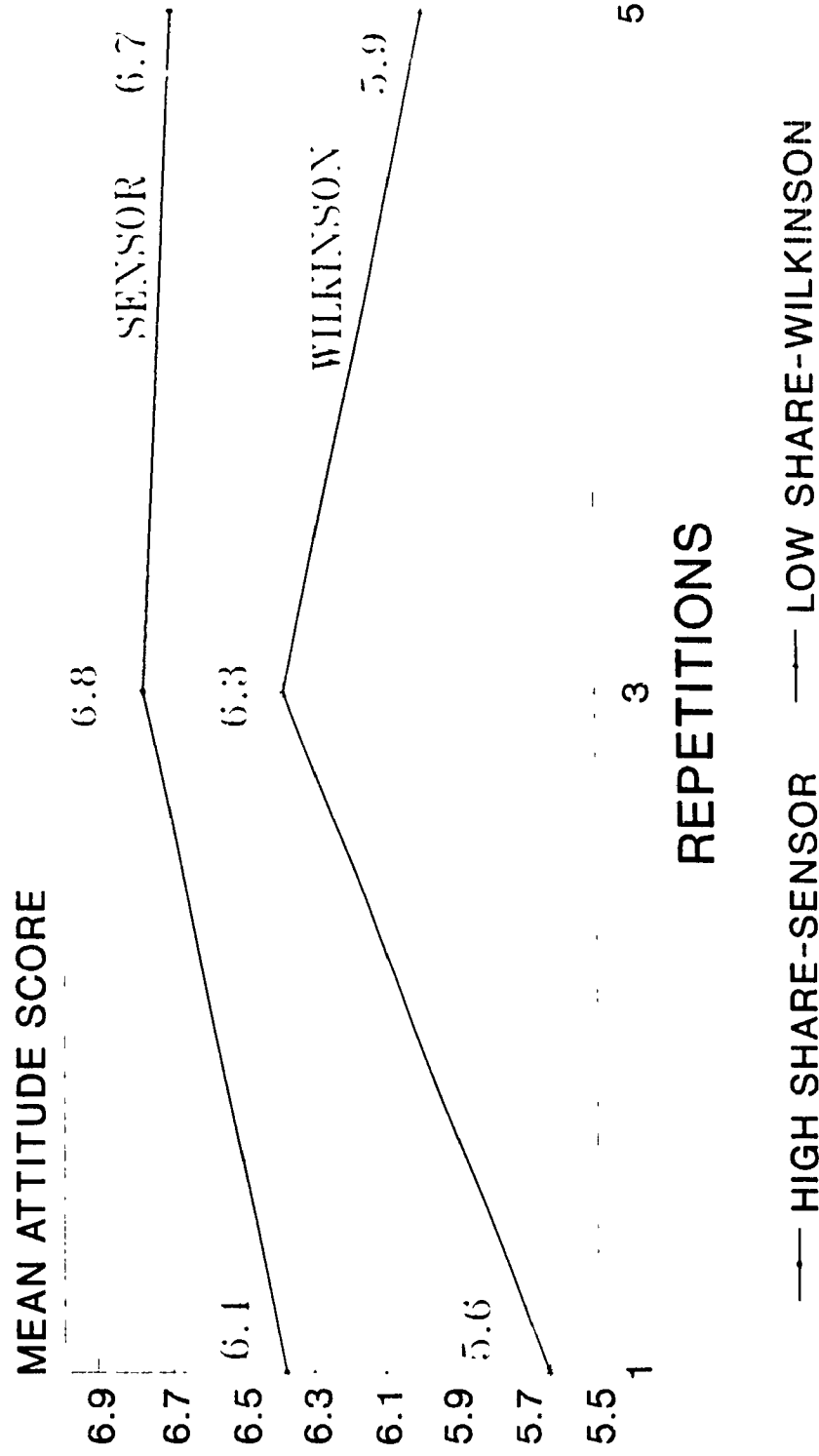
# RAZOR ATTITUDES

## NO COMPETITION CONDITION



ATTITUDES ON SCALE OF 1=BAD TO 9=GOOD  
HIGHER SCORE = BETTER ATTITUDES

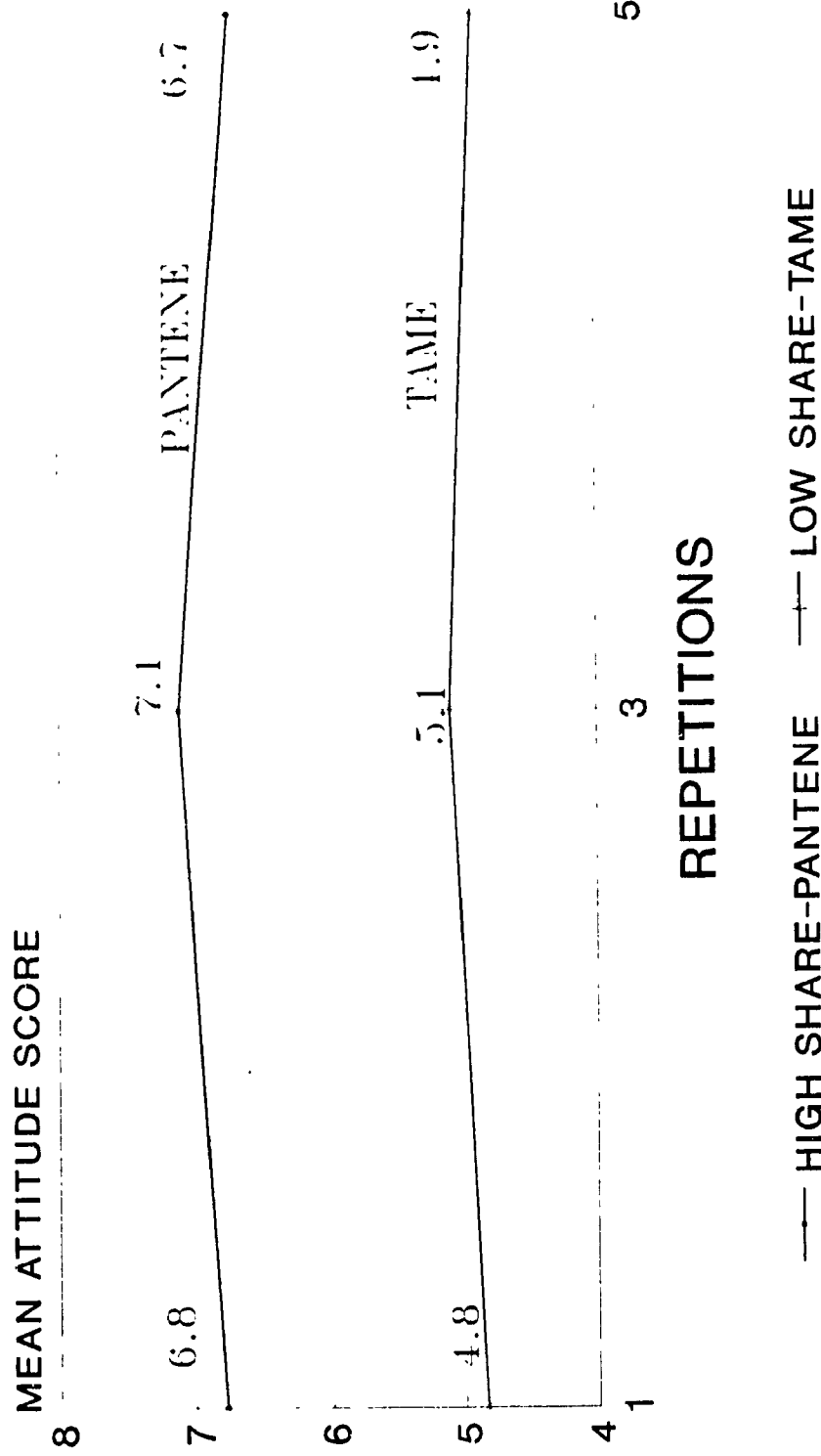
# RAZOR ATTITUDES COMPETITION CONDITION



ATTITUDES ON SCALE OF 1=BAD TO 9=GOOD  
HIGHER SCORE = BETTER ATTITUDES

# SHAMPOO ATTITUDES

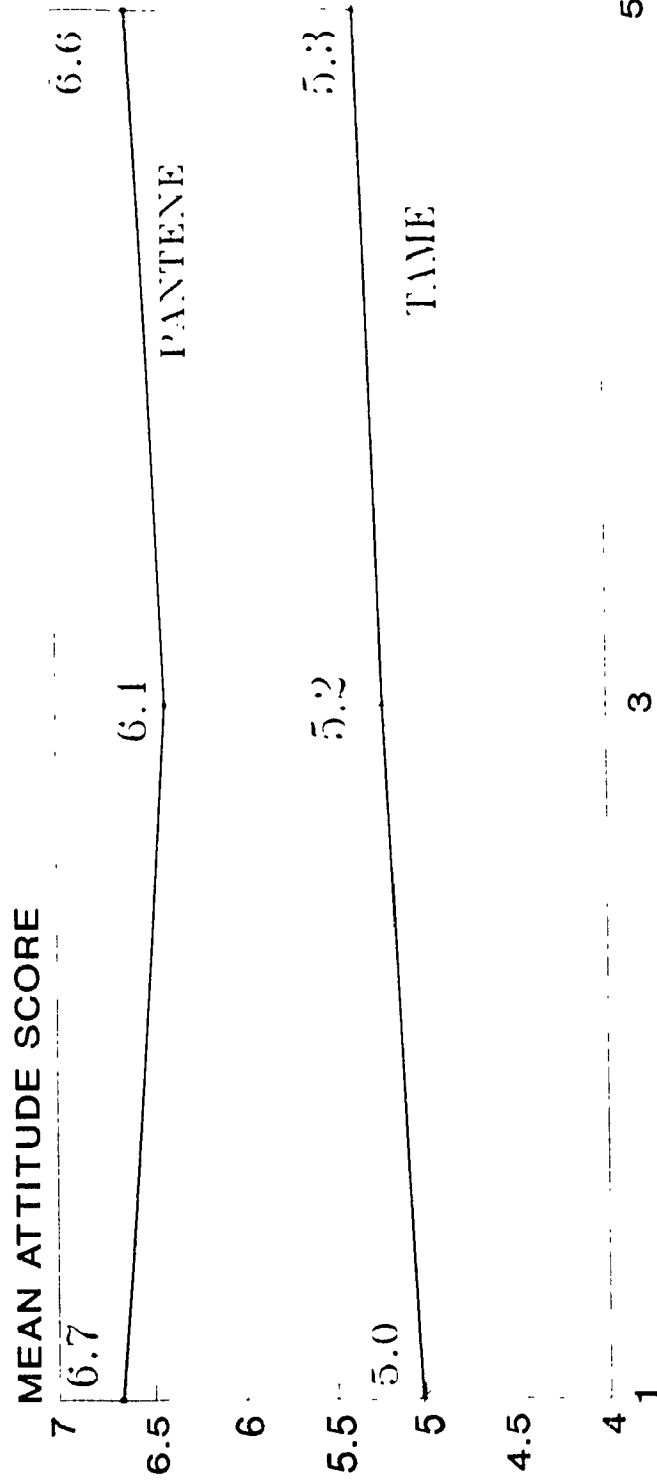
## NO COMPETITION CONDITION



ATTITUDES ON SCALE OF 1=BAD TO 9=GOOD  
HIGHER SCORE = BETTER ATTITUDE

# SHAMPOO ATTITUDES

## COMPETITION CONDITION



REPETITIONS

— HIGH SHARE ANTENE — LOW SHARE-TAME

ATTITUDES ON SCALE OF 1=BAD TO 9=GOOD  
HIGHER SCORE = BETTER ATTITUDE

THE GOOD/BAD CHARACTERISTICS AND FACTS THAT SUBJECTS STATED FOR  
THE SHAMPOO AND RAZOR CATEGORIES

SHAMPOO CATEGORY:

- 01 GOOD PERFORMANCE (Washes well, adequate working, good shampoo, beautiful hair, better than other shampoos, bouncy hair, less build-up, longer lasting, coats hair well, conditions well from roots to ends, deep down cleaning, safe for frequent washing, delicate/gentle/mild, salon-type hair, doesn't weigh down hair and make limp/full body hair, silky hair, soft hair, smooth hair, improves looks,manageable hair, doesn't leave hair oily,penetrates into hair, quality is high/good, rinses easily, shiny hair, voluminous hair, thick/rich lather, as good as other shampoos)
- 02 BAD PERFORMANCE (brand is no good, doesn't clean well, conditioner not good destroys hair if used too often, dries hair or scalp, makes hair fall out, not manageable, leaves tangles, lather isn't enough, need more to completely wash your hair, limp hair/no body,oily/greasy hair, does not rinse off easily, not thick/liquidy, two in one does not condition enough/need separate conditioner)
- 03 GOOD PACKAGING (bottle is easy to use,presentation is good)
- 04 BAD PACKAGING (logo not good, name no good, not catchy, plain, ugly, appearance of product is not nice, weird name, small quantity)
- 05 GOOD AD CAMPAIGN (convincing, seeing ad makes one health conscious, marketing strategy good, publicity is good, glamorous spokespeople, )
- 06 BAD AD CAMPAIGN (too short, unappealing, boring, not convincing, false, inadequate publicity/more required, ugly spokespeople,overrated, overadvertised)
- 07 INEXPENSIVE (good value,drop in the bucket price,economical, affordable,price is same as others, average price)
- 08 EXPENSIVE
- 09 GOOD FRAGRANCE (exotic scents, fresh air feeling, smells average, fruit smell, perfumed)
- 10 BAD FRAGRANCE
- 11 POPULAR/RELIABLE (fashionable, good reputation, reliable, dependable, approved by Swiss Vitamin Institute, accessible anywhere, good recommendation from friends)
- 12 NOT POPULAR (lower end shampoo/low market share, bad reputation for testing on animals)
- 13 RESTORES HAIR/SCALP TO HEALTHY CONDITION (replenishes damaged/weak hair, dry/damaged hair can be restored/repaired/replenished, stronger hair, thickens hair, good for perm or colour treated hair, healthy hair, protects hair, reduces split ends, controls dandruff)

- 14 DOES NOT RESTORE SCALP/HAIR TO HEALTHY CONDITION (makes hair itchy, does not control dandruff, bad ingredients, not PH balanced)
- 15 POSITIVE IMAGE OF PRODUCT (fancy, good for everybody, family type shampoo, superior, high class)
- 16 NEGATIVE IMAGE OF PRODUCT (old, unreal, bad, not fancy)
- 17 GOOD INGREDIENTS (herbal, formulation is good, same as in other more expensive brands, nourishes hair, panthenol, pro-vitamin B5, natural, good for hair, two in one conditioner)
- 18 DOES NOT LIKE IT (**attitude**), would not use it
- 19 GOOD PRODUCT VARIETY (variety for different types of hair, good line)
- 20 FEMALE PRODUCT
- 21 CHEAP/ORDINARY PRODUCT (in terms of quality, inferior than others, inferior to Pantene, same as other shampoos, boring, junk/trash product, gimmick, not impressive, same basic ingredients)
- 22 NOT ORDINARY/ORIGINAL (beneficial, good quality)
- 23 LIKE (attitude, have used it, still use it)
- 24 INCONVENIENT (too much hassle, not 2 in 1)
- 25 CONVENIENT (don't need both a shampoo and conditioner, less time to shampoo, available anywhere, useful)
- 26 NEW PRODUCT
- 27 APPEARANCE OF PRODUCT (clear colour, colour is nice, creamy)
- 28 CONDITIONER IS NO GOOD

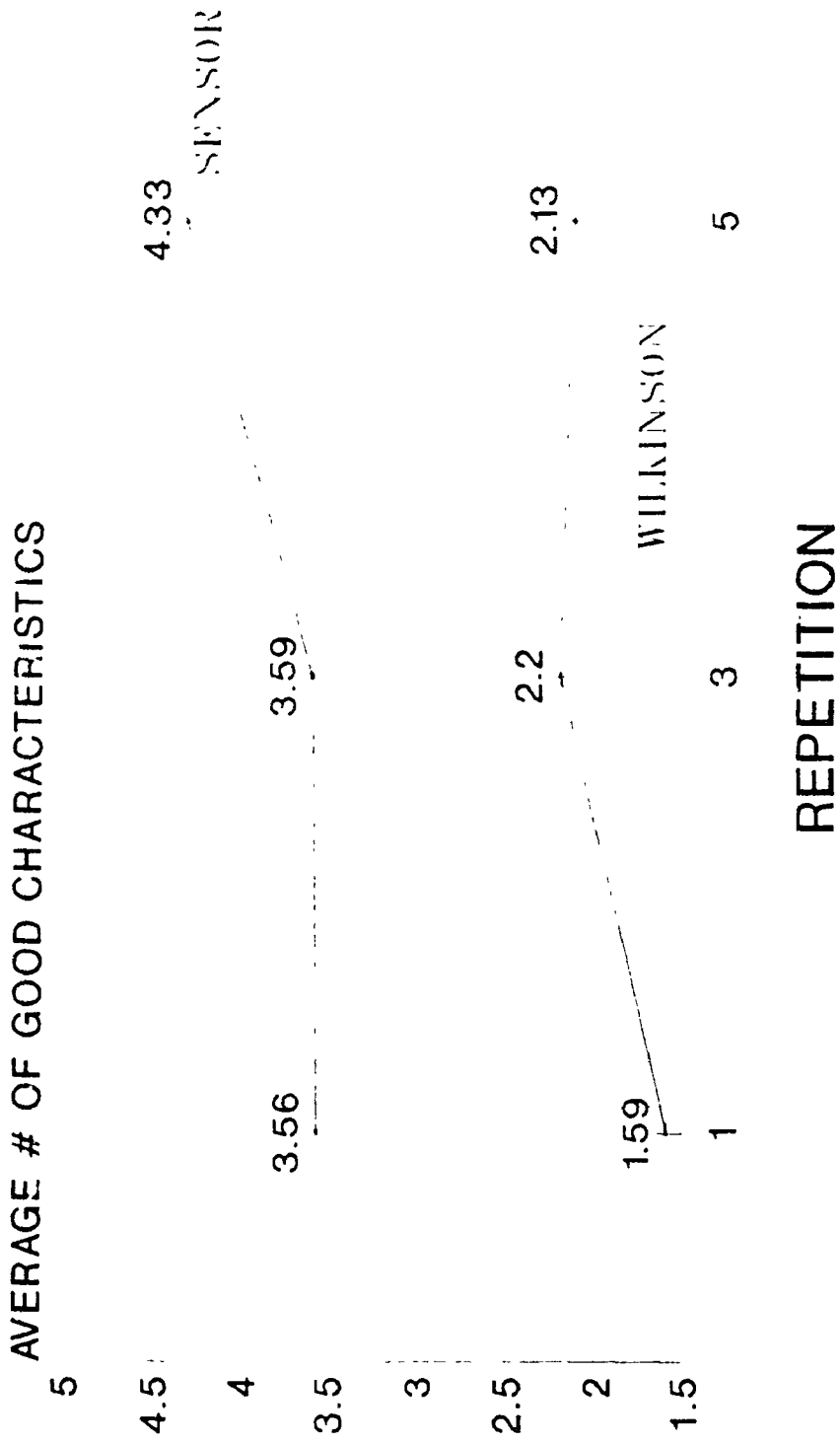
RAZOR CATEGORY:

- 01 CONVENIENT (long lasting, portable, quick/fast shave, compact, easy to hold/use/handle/manipulate, blade refills, blades available anywhere, razor accessible anywhere, blades come in packs of 5's or 10's, comes with a stand, flexibility is good, disposable heads, hygienic, use with water, useful, reliable)
- 02 NOT CONVENIENT (non-compatible, razors must be replaced often, cumbersome, heavy, inconvenient to buy, does not come in packs of 6 like disposables, not accessible, have to use with shaving cream, useless/pointless)
- 03 GOOD ADVERTISING CAMPAIGN (attractive men in ads, good logo of knives, catchy theme, music in commercial is catchy, good presentation of product)
- 04 BAD ADVERTISING CAMPAIGN (over-advertised, commercial is bad/unappealing, marketing is bad, more publicity needed )
- 05 GOOD APPEARANCE/PACKAGING (aerodynamic look, colour is nice/rich looking, creative design, curve head, nice handle, design/shape is nice, sleek, modern, fancy, different, unique)
- 06 BAD APPEARANCE/PACKAGING (colour is ugly/tacky/too feminine, design is not sleek, looks weird/funny, looks like a dustbuster)
- 07 GOOD IMAGE (attracts women, positive/sophisticated image, image is for young/successful men, sexy, high costs of R & D, new age image, promotes confidence, keeps up with the competition, can only be made by \_\_\_\_\_, macho product, product for everyone, men and women purchase it for themselves or their spouse, famous British company)
- 08 BAD IMAGE (old, image of perfection is false, unappealing, gimmick, boring, not environmentally friendly, average image, copy-cat)
- 09 GOOD PERFORMANCE (bad wet shave, adjustable to contours of face, not close enough, comfortable shave, close shave, clean cut, control of razor is good, good weight, no cuts, less nicks, dependable, durable, edges are easy to get to, proven effective/efficient, glides on, barb wires for closer shave, gentle on skin, good wet shave, good brand, safe/safety features, irritation is minimal/no burning or razor burn, long lasting shave, good for sensitive skin, good quality, good production, sharp, smooth shave, smooth legs, soft shave, competitive)
- 10 BAD PERFORMANCE (bad wet shave, not close enough, blades don't cut well after a few uses, cuts easily, can cut yourself badly, difficult to take stubble out of barb wire, electric shave is better, falls apart too easily, not as good as expected/advertised, cuts properly only after second or third use, causes irritation, not as good as Sensor, not safe, not smooth, too sharp the first use/cuts, not trustworthy, don't trust the bars, cheap quality, falls apart too quickly )
- 11 ORDINARY PRODUCT (attitude), same as others/regular product

- 12 DIFFERENTIATION OF PRODUCT (different/like no other, higher class razor, individually spring mounted blades, lubra strip, pivoting head, permanent system shaver, revolutionary, streamlined, technology is new/innovative, twin blade, beneficial, innovative, specially designed )
- 13 POPULARITY (best buy, best selling brand, the best a man can get, better than other razors, fashionable, Gillette/Wilkinson, is a reputable/trustworthy company, preferred by many, famous brand)
- 14 NOT POPULAR (new, unknown, tested on animals, don't know much about it)
- 15 EXPENSIVE (buy only when on special, expensive "looking", expensive refillable blades, bad money's worth, )
- 16 INEXPENSIVE (affordable, competitively priced, good money's worth )
- 17 MEN'S PRODUCT
- 18 VARIETY (Comes in Regular and Excel and for different skin types)
- 19 NO VARIETY (only one model)
- 20 CHEAP QUALITY (falls apart too quickly)
- 21 GOOD QUALITY (good production, as good as others, higher class razor)
- 22 WOULD NOT BUY IT (never tried it, don't know)
- 23 I LIKE IT (attitude)
- 24 MEMORABLE LOGO ( known for knives etc.)

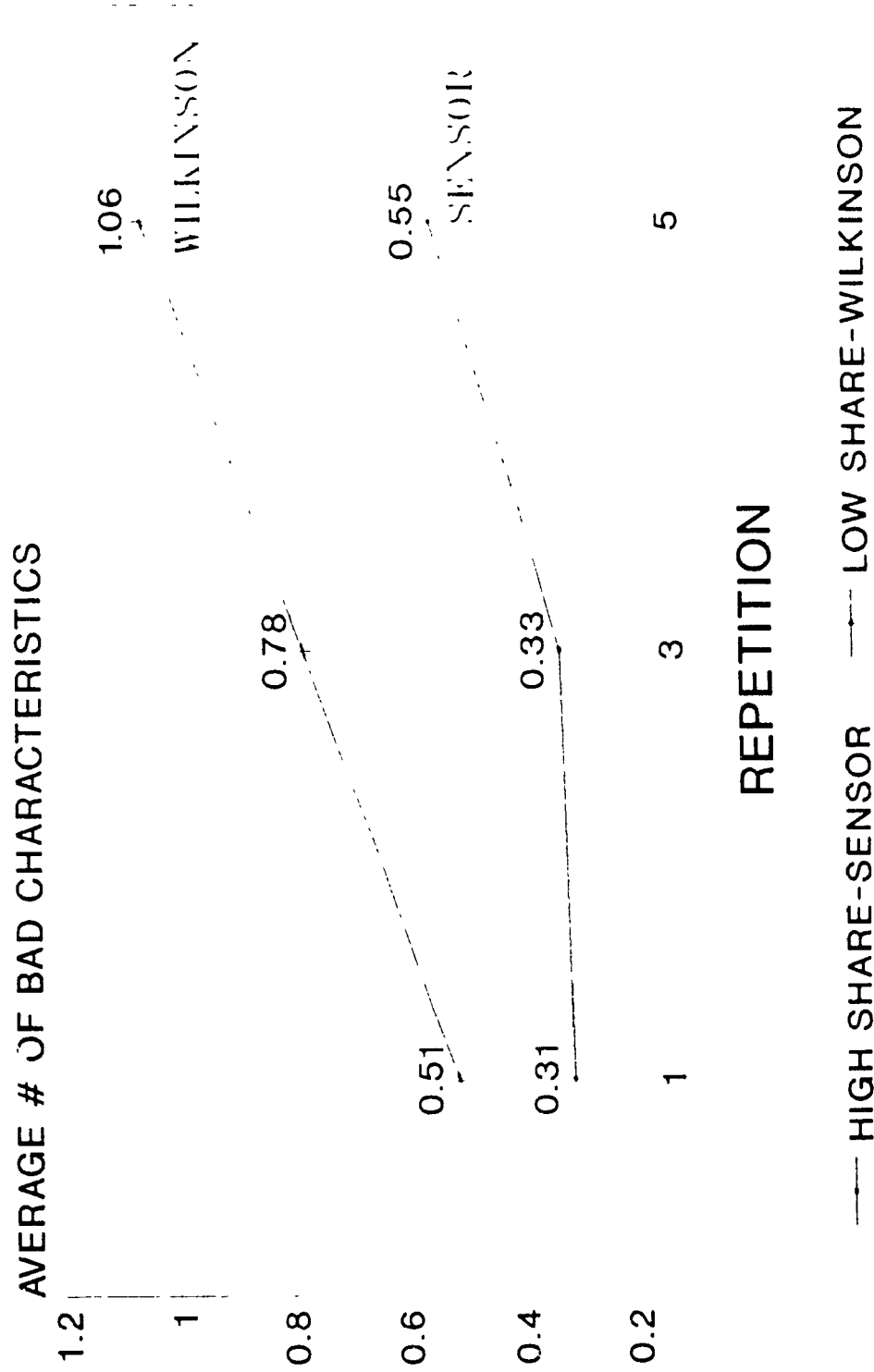


# GOOD ATTRIBUTES STATED FOR RAZORS NO COMPETITION



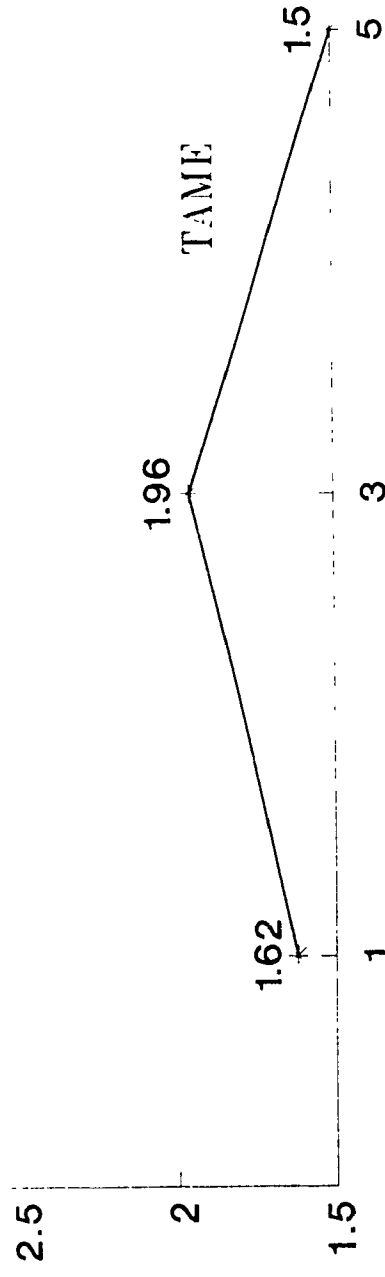
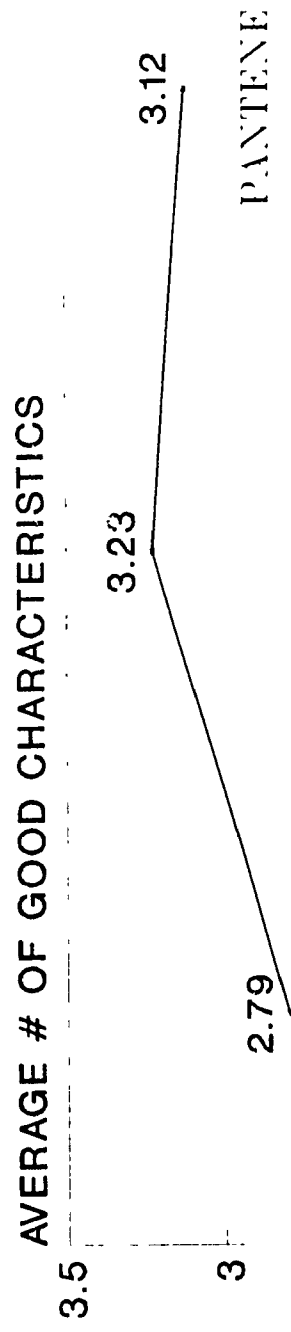
— HIGH SHARE-SENSOR    — LOW SHARE-WILKINSON

# BAD ATTRIBUTES STATED FOR RAZORS NO COMPETITION



# GOOD ATTRIBUTES STATED FOR SHAMPOOS

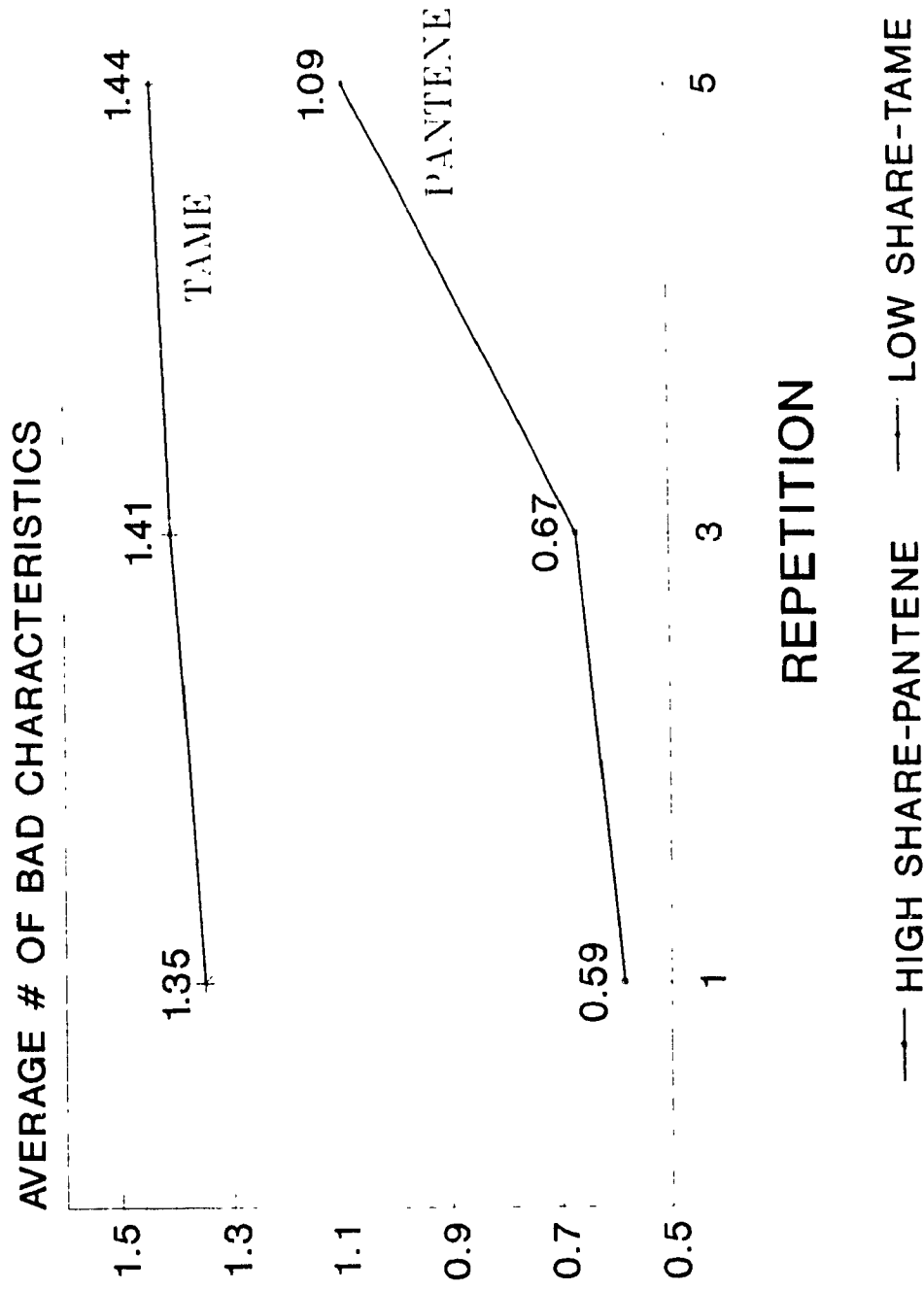
## NO COMPETITION



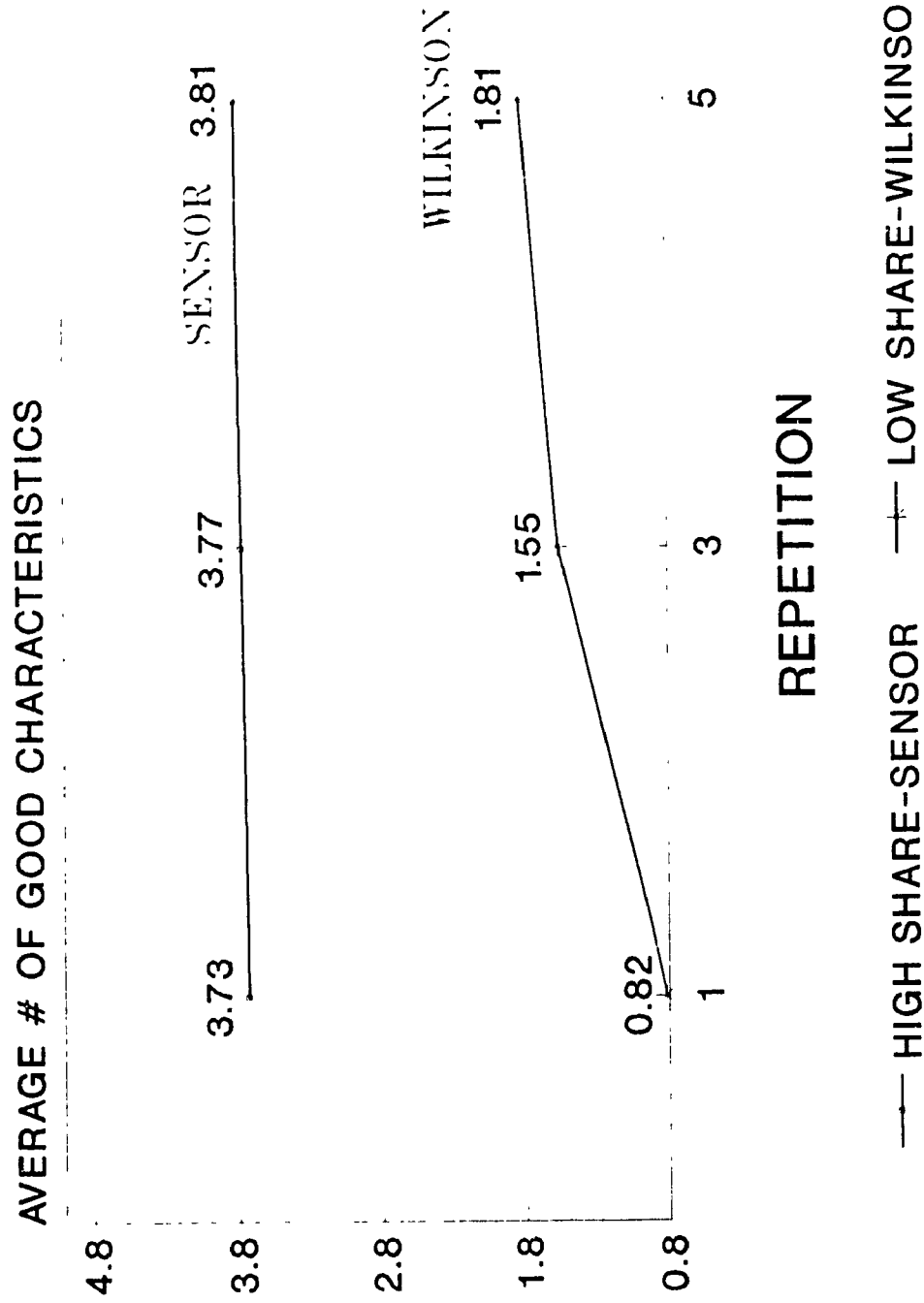
## REPETITION

—+— HIGH SHARE-PANTENE    —+— LOW SHARE-TAME

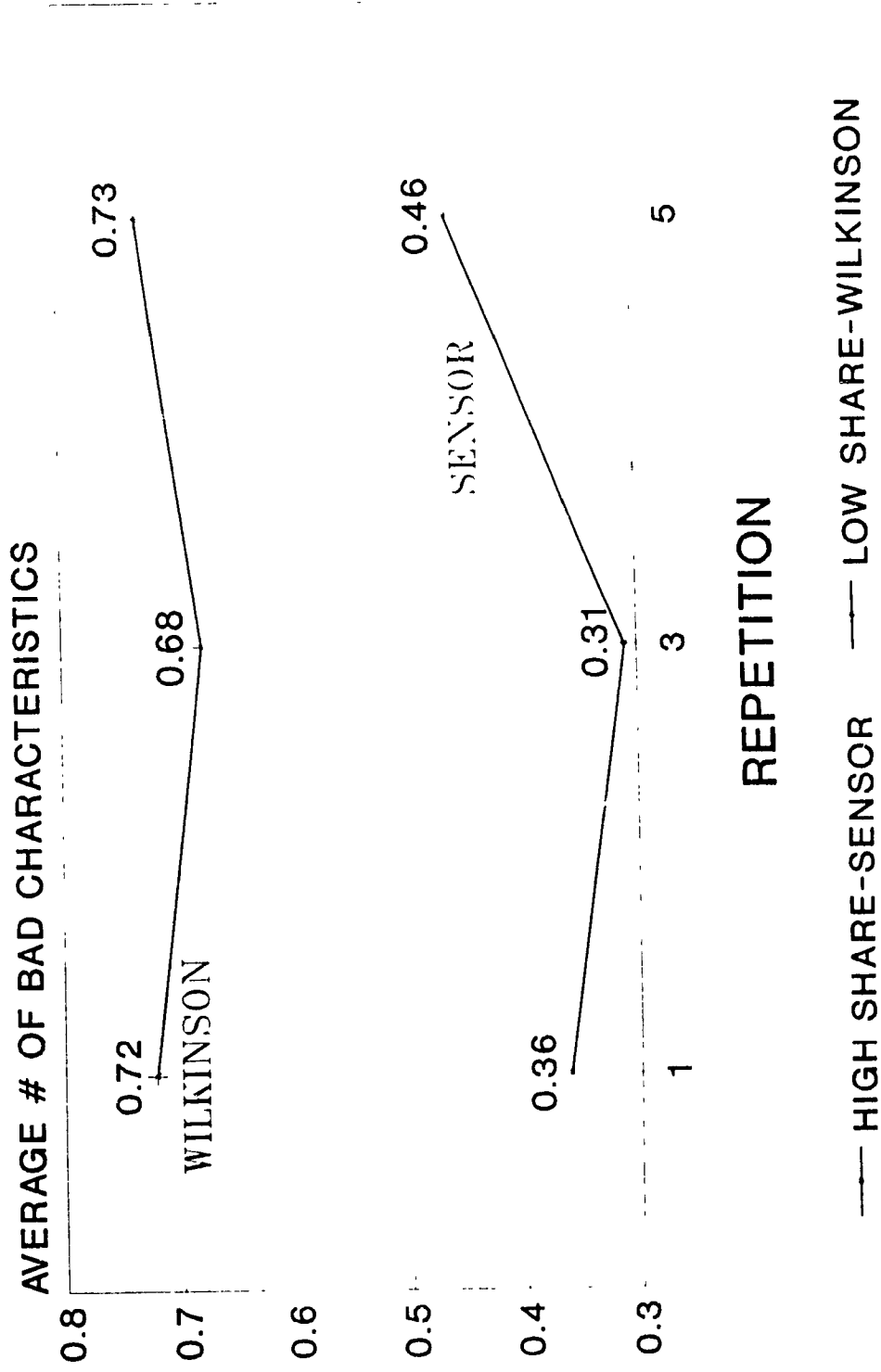
# BAD ATTRIBUTES STATED FOR SHAMPOOS. NO COMPETITION



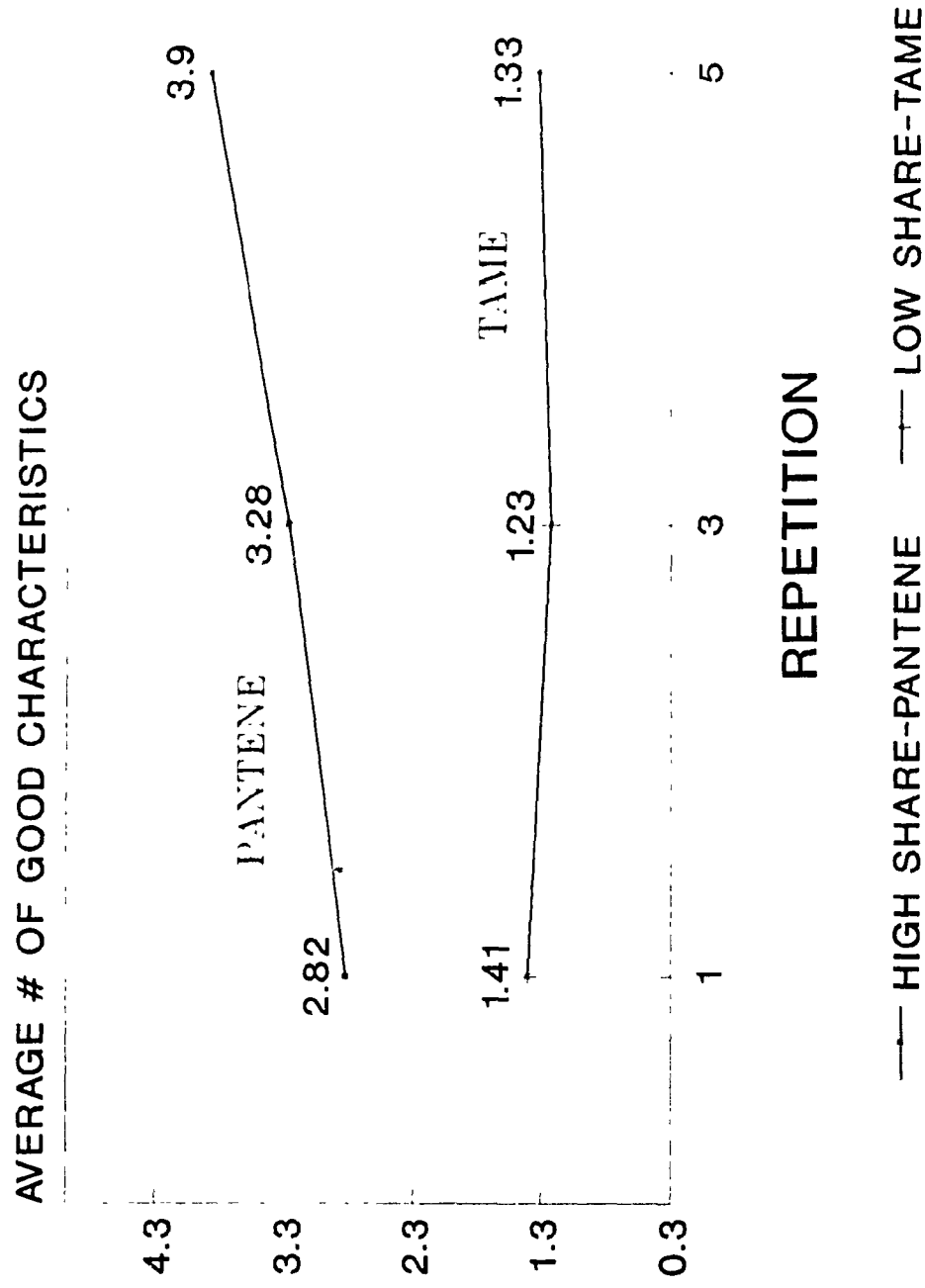
# GOOD ATTRIBUTES STATED FOR RAZORS COMPETITION



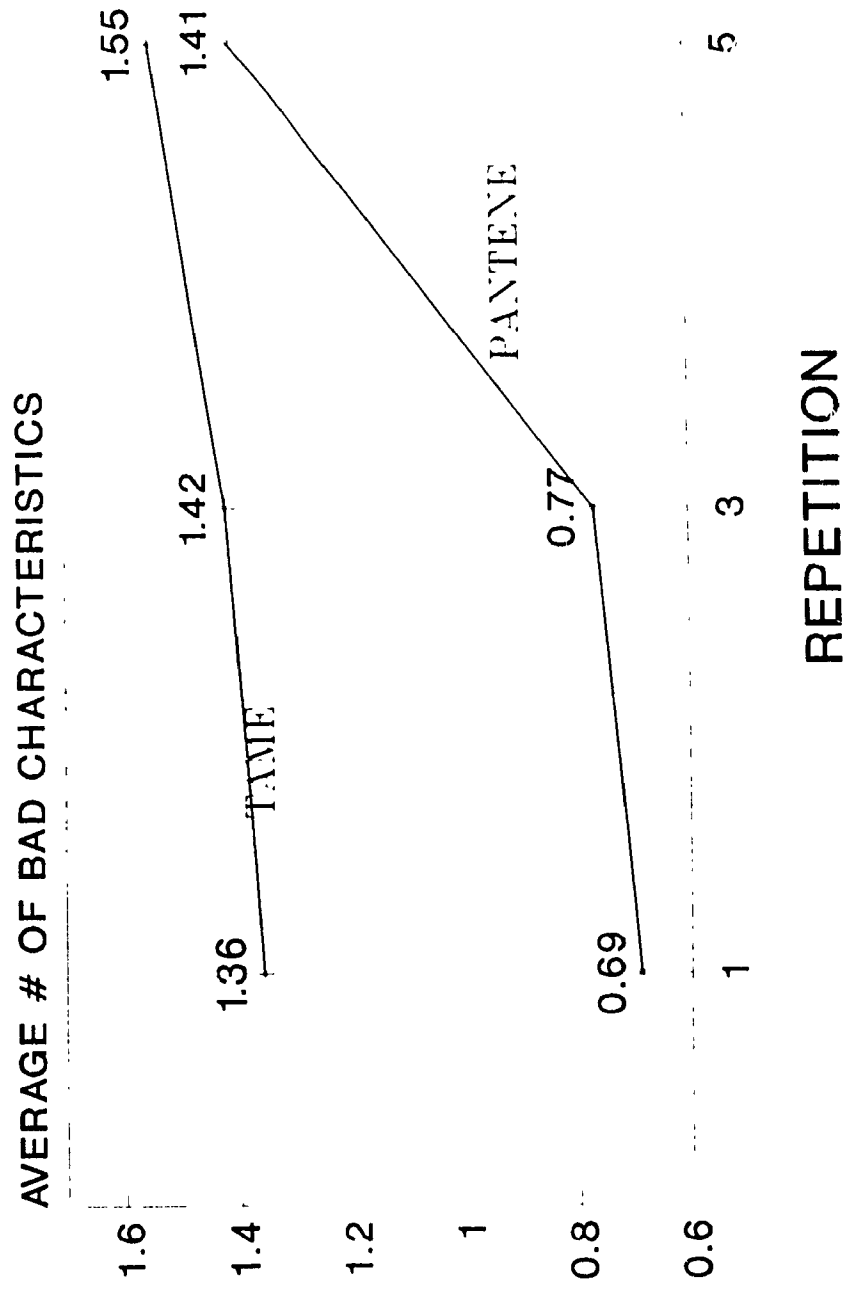
# BAD ATTRIBUTES STATED FOR RAZORS COMPETITION



# GOOD ATTRIBUTES STATED FOR SHAMPOOS COMPETITION



# BAD ATTRIBUTES STATED FOR SHAMPOOS COMPETITION



— HIGH SHARE-PANTENE — LOW SHARE-TAME



# **CORRELATIONS OF ATTITUDES WITH LATENCY**

CO-EFFICIENTS	1 REPETITION		3 REPETITIONS		5 REPETITIONS	
	COMPETITION CELL #0	NO COMPETITION CELL #3	COMPETITION CELL #5	NO COMPETITION CELL #7	COMPETITION CELL #9	NO COMPETITION CELL #11
CORRELATION CO-EFFICIENTS OF PANIENE SIGNIFICANCE LEVEL	- 2843 100 - C	- 1689 155	- 2197 089 - C	- 4188 004 - A	- 2237 083 - C	- 0054 489
CORRELATION CO-EFFICIENT OF SENSOR SIGNIFICANCE LEVEL	- 3204 078 - C	- 1642 169	- 1353 106 - C	- 1568 177	- 2986 032 - B	- 0853 327
CORRELATION CO-EFFICIENT OF WILKINSON SIGNIFICANCE LEVEL	- 0087 488	- 2488 089 - C	- 0603 380	- 2110 082 - C	+ 0031 493	+ 0654 066 - C
CORRELATION CO-EFFICIENT OF TAMIE SIGNIFICANCE LEVEL	- 2440 137	- 2234 099 - C	- 0088 482	+ 2244 067 - C	+ 0778 333	+ 2216 105 - C

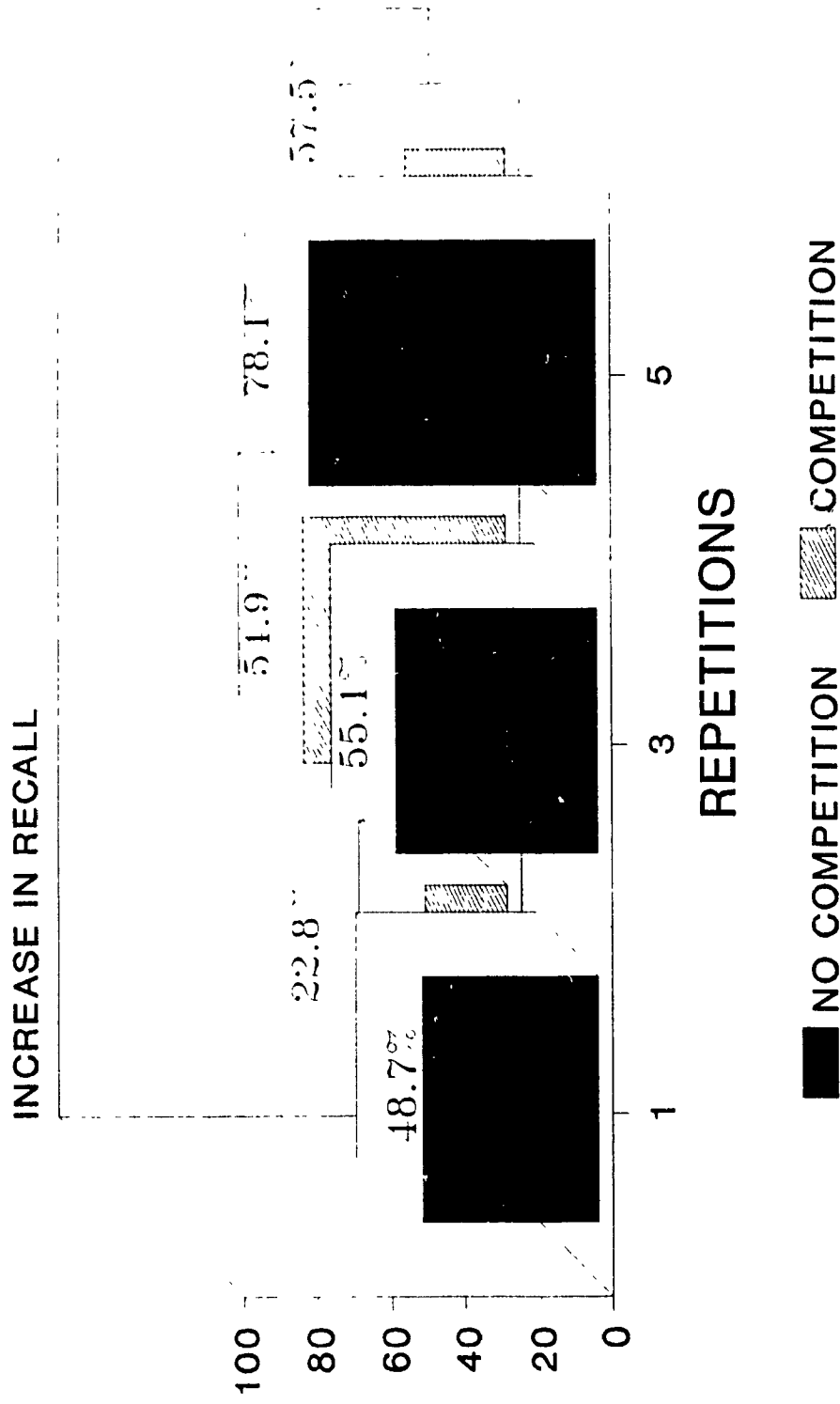
NOTE: LEVEL OF SIGNIFICANCE =  
 A)  $P < .01$   
 B)  $P < .05$   
 C)  $P < .10$

# RECALL BEFORE AND AFTER FILM

RECALL	1 REPETITION		3 REPETITIONS		5 REPETITIONS		TOTAL
	COMPETITION	NO COMPETITION	COMPETITION	NO COMPETITION	COMPETITION	NO COMPETITION	
RECALL OF PANTENE BEFORE	CELL #0 3 - 13.6%	CELL #3 14 - 35.9%	CELL #5 14 - 35.9%	CELL #7 16 - 41.0%	CELL #9 13 - 31.7%	CELL #11 9 - 27.3%	69 - 32.4%
RECALL OF PANTENE AFTER	15 - 68.2%	31 - 79.5%	33 - 84.6%	32 - 82.1%	35 - 85.4%	28 - 84.8%	174 - 81.7%
RECALL OF SENSOR BEFORE	CELL #0 12 - 54.5%	CELL #3 28 - 71.8%	CELL #5 28 - 71.8%	CELL #7 37 - 94.9%	CELL #9 32 - 78.0%	CELL #11 27 - 81.8%	164 - 77.0%
RECALL OF SENSOR AFTER	22 - 100%	37 - 94.9%	38 - 97.4%	39 - 100%	41 - 100%	32 - 97.0%	209 - 98.1%
RECALL OF TAME BEFORE	CELL #1 0 - 0%	CELL #4 1 - 2.7%	CELL #6 2 - 6.5%	CELL #8 2 - 4.1%	CELL #10 2 - 5.0%	CELL #12 3 - 9.4%	10 - 4.7%
RECALL OF TAME AFTER	8 - 36.7%	14 - 37.8%	18 - 58.1%	38 - 56.1%	21 - 52.5%	28 - 87.5%	115 - 54.5%
RECALL OF WILKINSON BEFORE	CELL #1 1 - 4.5%	CELL #4 3 - 8.1%	CELL #6 1 - 3.2%	CELL #8 5 - 10.2%	CELL #10 2 - 5.0%	CELL #12 4 - 12.5%	16 - 7.6%
RECALL OF WILKINSON AFTER	6 - 27.3%	21 - 56.8%	18 - 58.1%	32 - 65.3%	25 - 62.5%	29 - 90.6%	131 - 62.1%

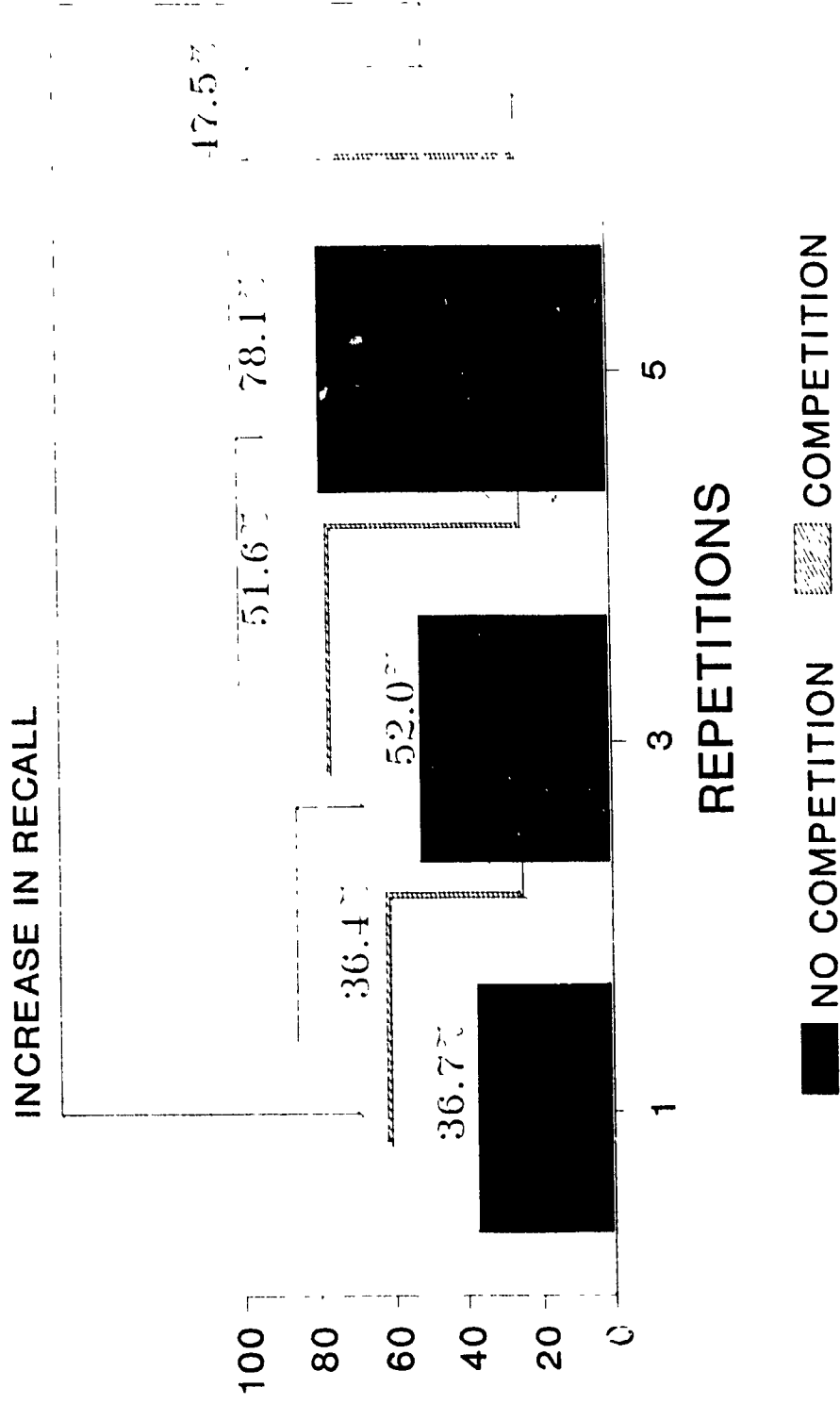
NOTE: RECALL FOR RAZORS INCLUDED BOTH THE RECALL OF THE BRAND NAME AND MANUFACTURER

# RECALL FOR WILKINSON



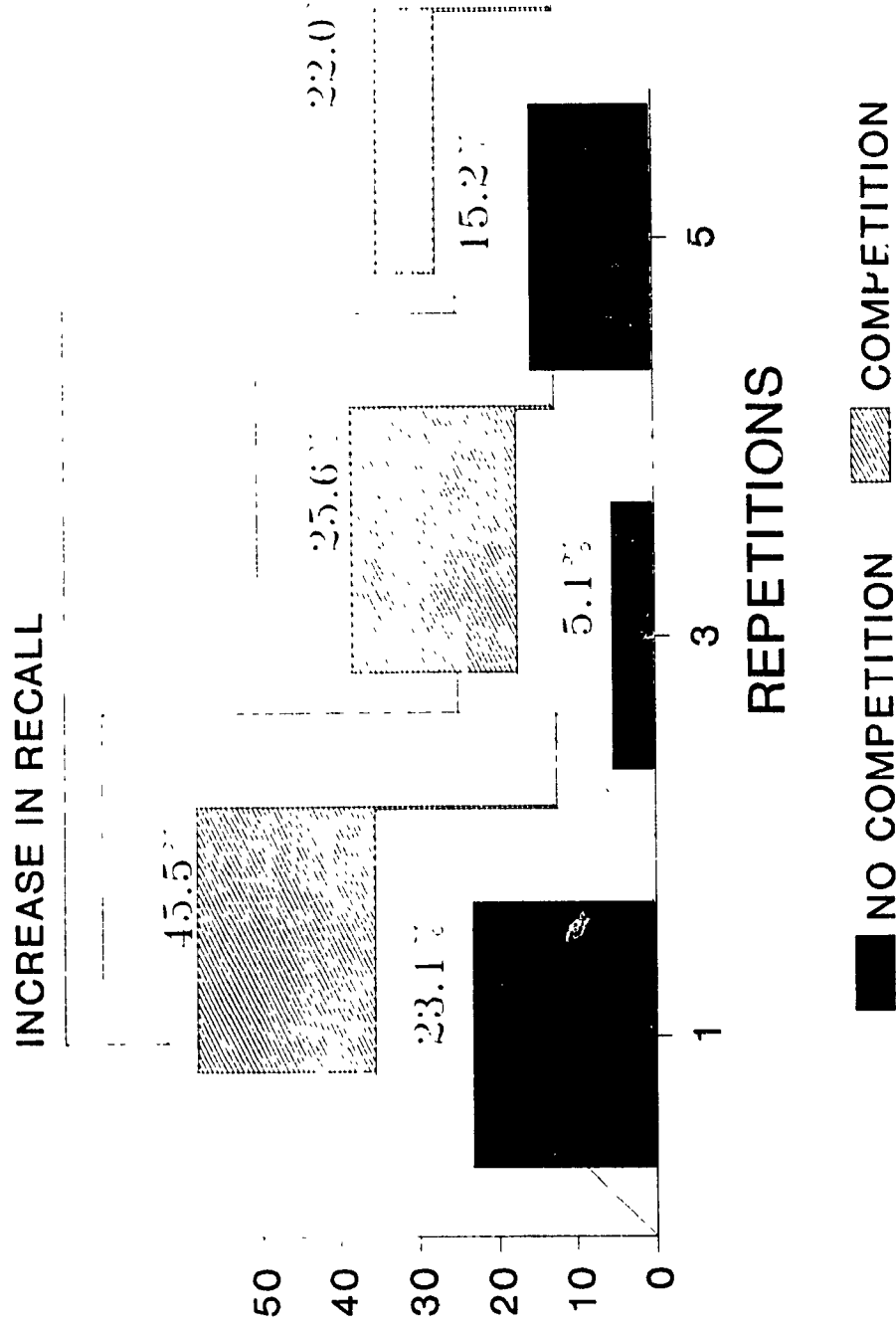
THE CHART SYMBOLIZES THE % DIFFERENCE  
OF SUBJECTS WHO RECALLED  
WILKINSON BEFORE AND AFTER THE FILM

# RECALL FOR TAME



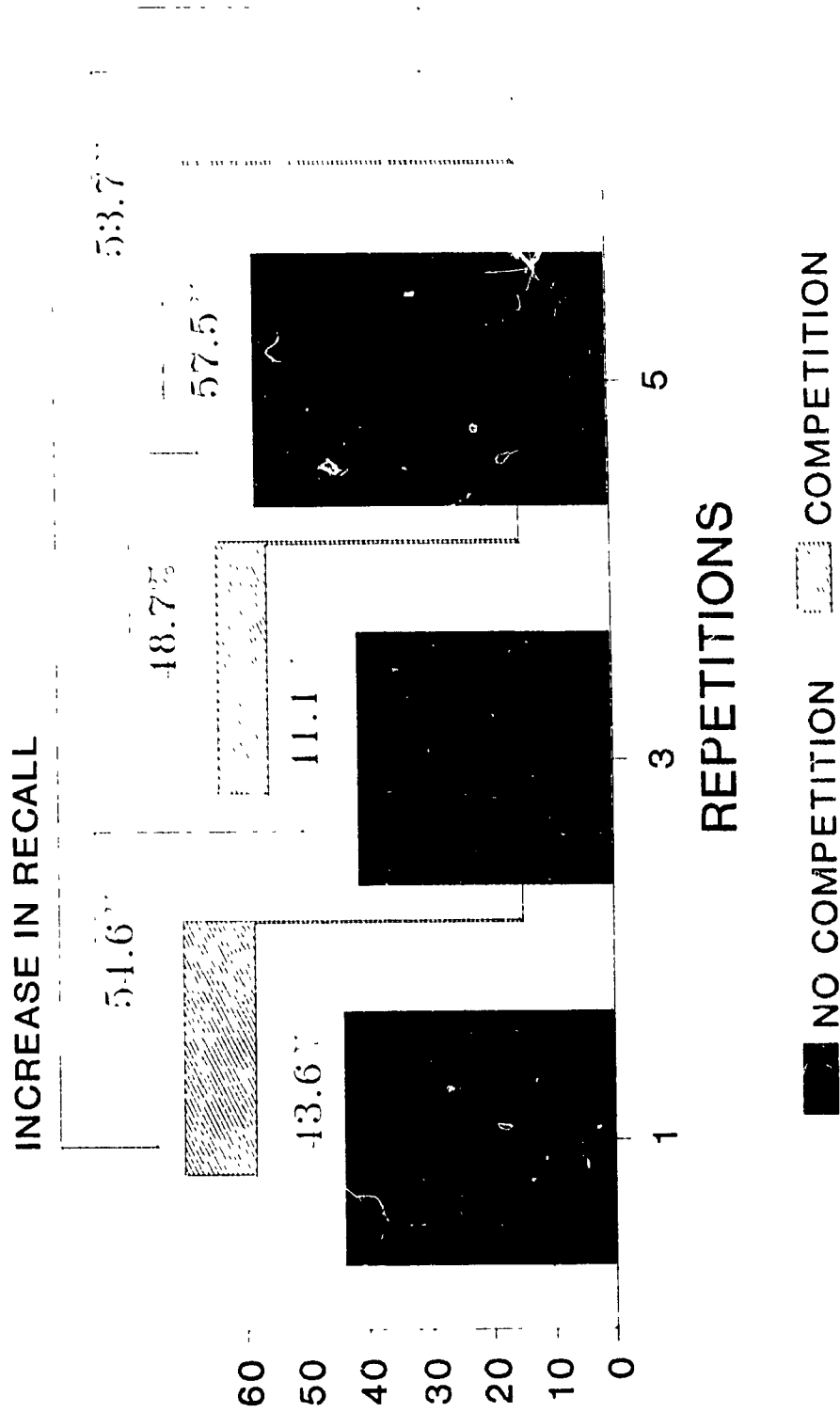
THE CHART SYMBOLIZES THE % DIFFERENCE  
OF SUBJECTS WHO RECALLED  
TAME BEFORE AND AFTER THE FILM

# RECALL FOR SENSOR



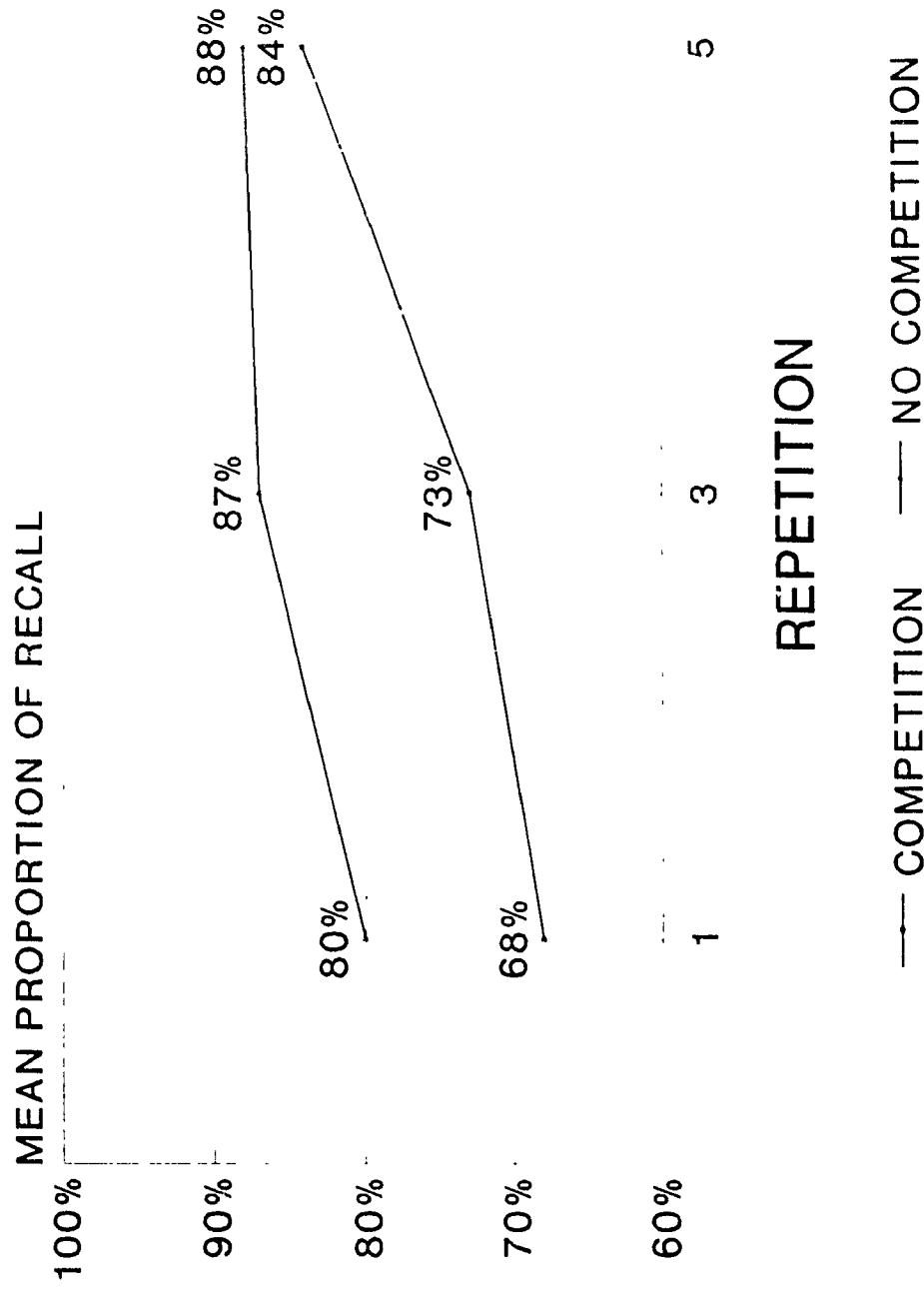
THE CHART SYMBOLIZES THE % DIFFERENCE  
OF SUBJECTS WHO RECALLED  
SENSOR BEFORE AND AFTER THE FILM

# RECALL FOR PANTENE



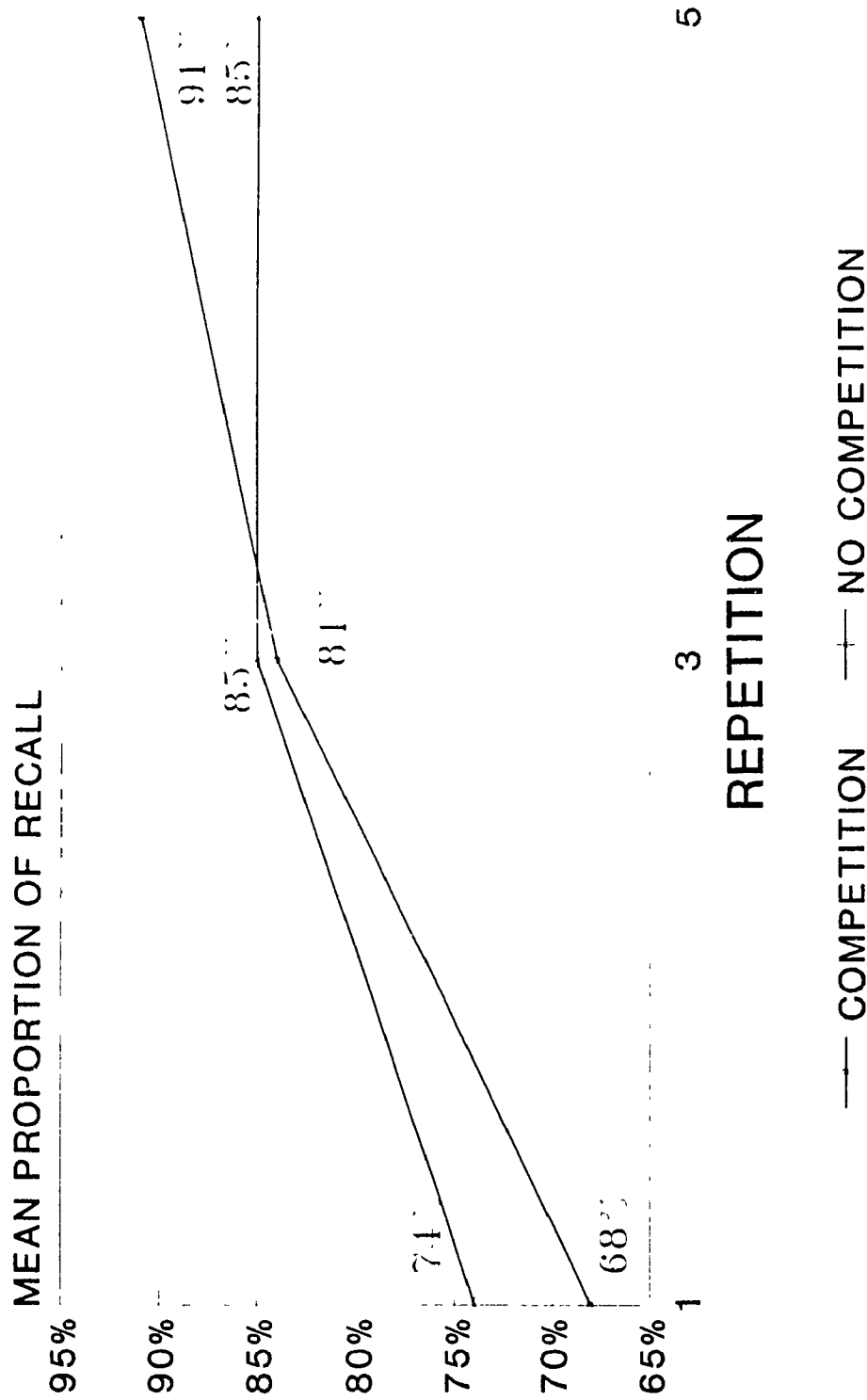
THE CHART SYMBOLIZES THE % DIFFERENCE  
OF SUBJECTS WHO RECALLED  
PANTENE BEFORE AND AFTER THE FILM

# RECALL OF SENSOR ATTRIBUTES



THIS CHART GRAPHS THE MEAN PROPORTION OF SUBJECTS THAT CORRECTLY ASSOCIATED THE BRAND NAME WITH AN ATTRIBUTE/QUOTATION

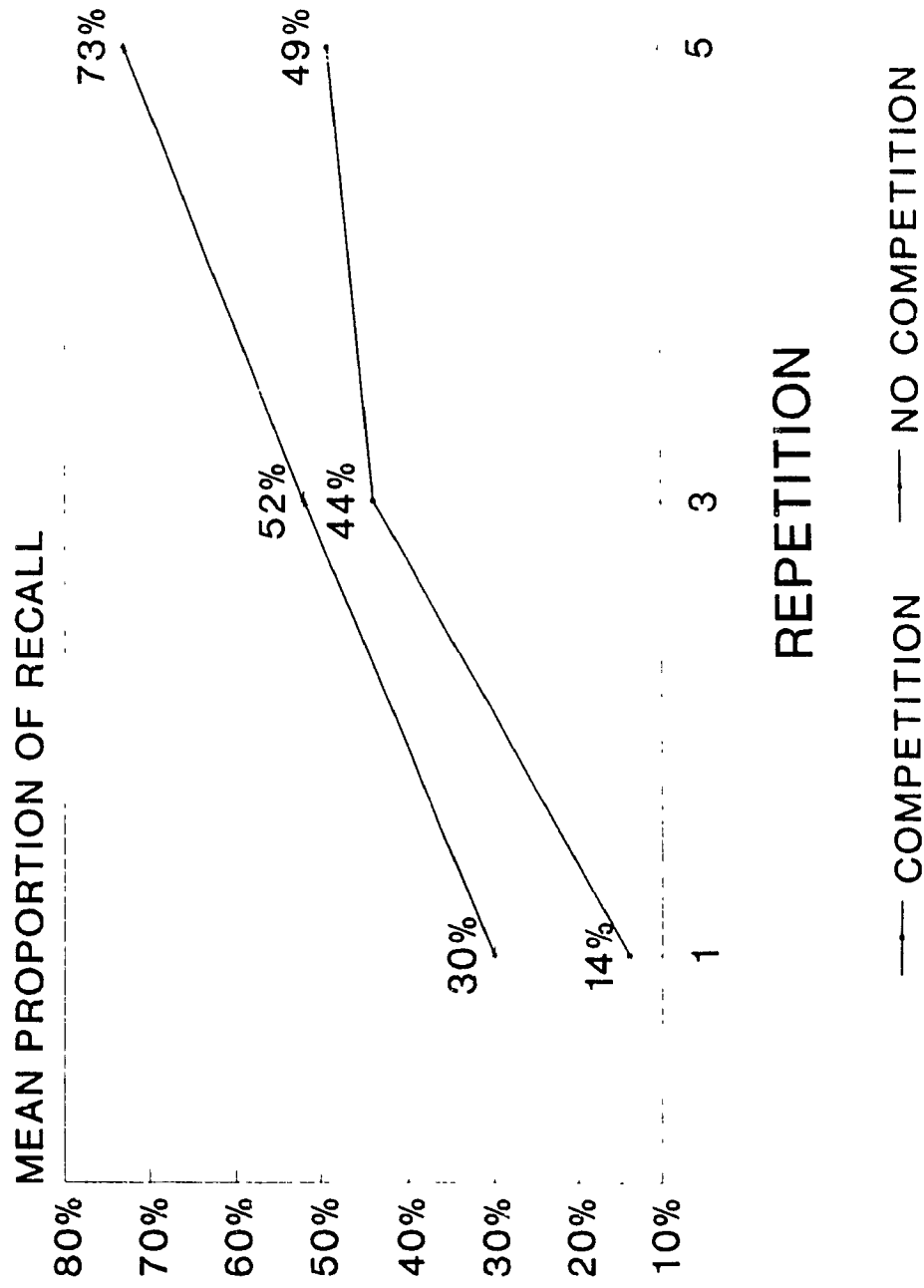
# RECALL OF PANTENE ATTRIBUTES



THIS CHART GRAPHS THE MEAN PROPORTION OF SUBJECTS THAT CORRECTLY ASSOCIATED THE BRAND NAME WITH AN ATTRIBUTE/QUOTATION

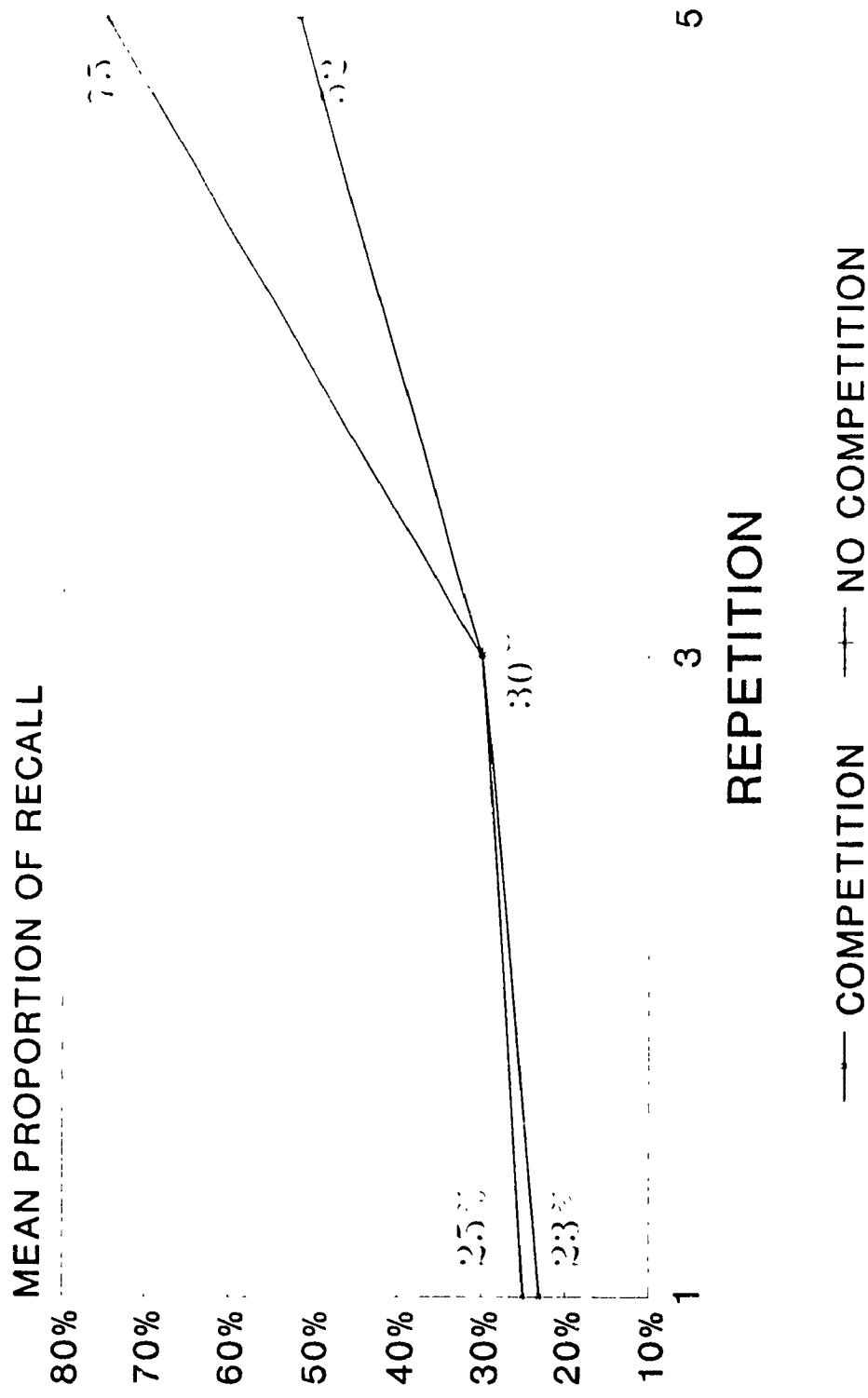


# RECALL OF WILKINSON ATTRIBUTES



THIS CHART GRAPHS THE MEAN PROPORTION OF SUBJECTS THAT CORRECTLY ASSOCIATED THE BRAND NAME WITH AN ATTRIBUTE/QUOTATION

# RECALL OF TAME ATTRIBUTES



THIS CHART GRAPHS THE MEAN PROPORTION OF SUBJECTS THAT CORRECTLY ASSOCIATED THE BRAND NAME WITH AN ATTRIBUTE/QUOTATION

# OVERVIEW OF RESULTS

HYPOTHESES	SENSOR		WILKINSON		PANTENE		TAME	
	COMPETITION	NO COMPETITION	COMPETITION	NO COMPETITION	COMPETITION	NO COMPETITION	COMPETITION	NO COMPETITION
H1: ACCESSIBLE ATTITUDES VIA REPETITION	NOT ACCEPTED	NOT ACCEPTED	ACCEPTED	ACCEPTED	NOT ACCEPTED	NOT ACCEPTED	ACCEPTED	ACCEPTED
H2: ACCESSIBLE ATTITUDES VIA FAMILIARITY	NOT ACCEPTED	NOT ACCEPTED	NOT ACCEPTED	NOT ACCEPTED	ACCEPTED	ACCEPTED	ACCEPTED	ACCEPTED
H3: COMPETITION LOWERS ACCESSIBILITY	NOT ACCEPTED	N/A	ACCEPTED AT 5 REPS	N/A	NOT ACCEPTED	N/A	ACCEPTED AT 5 REPS	N/A
H4A: NEED MORE REPS TO INCREASE ACC OF LOW SHARE BRANDS	N/A	N/A	NOT ACCEPTED	ACCEPTED	N/A	N/A	NOT ACCEPTED	ACCEPTED
H4B: NEED LOW/MODERATE REPS TO INCREASE ACC OF HIGH SHR. BRANDS	ACCEPTED	ACCEPTED	N/A	N/A	ACCEPTED	ACCEPTED	N/A	N/A
H5A: MORE ACCESSIBLE ATTITUDES HELD WITH MORE CONFIDENCE/CERTAINTY	ACCEPTED	ACCEPTED	NOT ACCEPTED	NOT ACCEPTED	ACCEPTED	ACCEPTED	NOT ACCEPTED	ACCEPTED
H5B: MORE CONFIDENT ATTITUDES - STRONGER EFFECT A-B RELATIONSHIP	ACCEPTED	ACCEPTED	NOT ACCEPTED	NOT ACCEPTED	ACCEPTED	ACCEPTED	NOT ACCEPTED	NOT ACCEPTED
H5C: MORE ACCESSIBLE ATTITUDES - STRONGER EFFECT A-B RELATIONSHIP	NOT ACCEPTED	ACCEPTED	NOT ACCEPTED	ACCEPTED	NOT ACCEPTED	ACCEPTED	NOT ACCEPTED	NOT ACCEPTED
H6A: EVALUATION FOR HIGH SHARE BRAND LOWER W/ COMP OF LOW SHR. BRAND	ACCEPTED	ACCEPTED	N/A	N/A	ACCEPTED	ACCEPTED	N/A	N/A
H6B: EVALUATION FOR A LOW SHARE BRAND HIGHER W/ COMP OF HIGH SHR BRAND	N/A	N/A	ACCEPTED	ACCEPTED	N/A	N/A	ACCEPTED	ACCEPTED
H7A: RECALL FOR HIGH SHR BRANDS IS HIGHER IN THE COMP CONDITION	ACCEPTED	ACCEPTED	N/A	N/A	ACCEPTED	ACCEPTED	N/A	N/A
H7B: RECALL FOR LOW SHARE BRANDS HIGHER IN THE NO COMP CONDITION	N/A	N/A	ACCEPTED	ACCEPTED	N/A	N/A	ACCEPTED	ACCEPTED