

**The Effects of Imagery Instructions, Ad Modality and Ad Focus on Persuasion:
A Process-Oriented Approach**

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INTRODUCTION

Imagery is "a process by which sensory information is represented in working memory" (MacInnis and Price 1987); thus, it represents a form of cognitive processing that does not utilize verbal or semantic means. In general, three main strategies have been suggested to induce mental imagery, namely, pictures, concrete words, and instructions to imagine (Alesandrini and Sheikh 1983; Lutz and Lutz 1978; MacInnis and Price 1987). Considerable research in cognitive psychology has demonstrated the facilitative effects of these imagery eliciting strategies on learning and memory (e.g., Bower 1972; Paivio 1969). One prominent explanation for these effects suggests that imaginal processing stimulates the encoding of information in both verbal and image formats and thereby increases its availability in memory (Paivio 1971).

While some researchers have suggested that the increased availability arising from imagery processing should also assist in persuasion (e.g., Lutz and Lutz 1978), support for this position has been forthcoming mainly through the use of pictures. Thus, research in advertising has shown that the use of pictorial information enhances ad and brand attitudes (Edell and Staelin 1983; Mitchell 1986; Mitchell and Olson 1981; Rossiter and Percy 1978,1980). However, the use of imagery instructions has not yielded consistent results. While Gregory, Cialdini and Carpenter (1982) found positive effects on attitudes, Mowen (1980) found negative effects, and several other studies did not demonstrate any significant main effects (Burns, Biswas and Babin 1993; Dickson et al. 1986; Keller and McGill 1994; Kisielius and Sternthal 1984; McGill and Anand 1989; Wright and Rip 1980). Bone and Ellen (1992) combined imagery instructions with concrete wording and found effects on attitudes toward the ad but not on brand attitudes or purchase intentions. In a recent attempt, Babin and Burns (1997) used multiple instructions to imagine, embedding them throughout the copy of a print ad and yet found only modest effects.

The most counterintuitive finding relates to the Mowen (1980) study. However, supplementary data on subjects' reactions to the ad revealed that the instructions were too blatant to be credible. Thus, the very manipulation used to induce imagery may have led to the surprising results. In the case of Wright and Rip (1980), the study was conducted on first time buyers. Research elsewhere has indicated that imagery is not effective when subjects are faced with new or difficult concepts (De Rose 1976; Rigney and Lutz 1976). Thus, the subjects' lack

of experience with the product category may have impeded their ability to generate meaningful images. Explanations for these two studies notwithstanding, evidence for the facilitative role of imagery instructions in persuasion is clearly meager.

We propose that past research on imagery instructions has yielded lackluster results because the impact of instructions to imagine is contingent on the presence of other ad-related factors. We therefore identify two managerially relevant dimensions that may influence the effectiveness of imagery instructions on persuasion. Specifically, we examine whether (1) the focus of information in an ad (attribute-oriented vs. benefit-oriented) and (2) the modality in which the ad information is presented (visually vs. aurally) moderate the effect of imagery instructions on imagery processes and outcomes. The two factors relate to two key decisions faced by advertisers, namely, the content of the advertising message and the medium in which it is transmitted. Thus, examining the moderating role of these factors on the effect of imagery instructions is of both theoretical and practical significance.

A second purpose of this research is to better understand the process by which imagery enhances persuasion. Early work in the area of imagery focused on examining various outcomes arising from the use of imagery eliciting strategies. Thus, in most cases, the studies did not demonstrate that imaginal processing was, in fact, the cause of any observed effects. Recent effort has moved toward empirically demonstrating a mediating role for imagery in the effects found on various communication outcomes (Babin and Burns 1997; Bone and Ellen 1992; Burns, Biswas and Babin 1993; Oliver, Robertson and Mitchell 1993; Unnava and Burnkrant 1991). While these efforts have provided more direct support for the existence of imagery effects on memory and persuasion, the process by which imagery produces these effects is still not well understood. Thus, we attempt to develop a richer conceptualization of the process by which imagery instructions may impact persuasion.

In the next section, we describe the various elements in our conceptual model. We then develop specific hypotheses that link ad factors (imagery instructions, modality and ad focus) with dimensions of imagery processing and the dimensions, in turn, to ad outcomes such as feelings, beliefs and brand attitudes. An empirical study designed to test the model and hypotheses is described next, followed by a discussion of the results and their implications.

CONCEPTUAL MODEL

As indicated in Figure 1, we delineate five major stages in the conceptual model. The first stage describes various ad factors that act as antecedents in inducing imagery processing. The next two stages both relate to aspects of imagery; while the former outlines various dimensions pertaining to the act of imagery generation, the latter specifies various facets that describe the elaboration undertaken during imaginal processing. The final two stages deal with outcomes resulting from imagery processing. The first set of outcomes refer to anticipated changes in consumers' internal states that may directly arise from the imagery undertaken while the second set of outcomes specify the ultimate communication goals desired by the marketer. Below we describe the various constructs indicated in the model.

 Insert Figure 1 About Here

Ad Factors

As indicated earlier, three aspects relating to the advertising stimulus are considered in our research. The first factor, *Imagery instructions*, refers to the provision of explicit guidelines to undertake imaginal processing. Lutz and Lutz (1978) define imagery instructions as "a statement to the learner that directs him or her to form a mental picture of the concept to be learned". The second factor, *Modality*, refers to the sensory medium through which information is communicated/received. In an advertising context, the relevant modalities are visual and auditory (although advertisers sometimes attempt to persuade through the use of smells). The managerial relevance of modality stems from its close correspondence to advertising media vehicles. Thus, radio utilizes the auditory mode, print utilizes the visual mode, and television incorporates both (i.e., is audio-visual). The third factor considered in the model is *Ad Focus*. Information in an ad can focus on product attributes and/or product benefits. Attributes refer to the physical characteristics or features of the product per se. Benefits, however, refer to the advantages that the features offer to the consumer. The distinction between attributes and benefits is made clear in the words of Alesandrini and Sheikh (1983) who describe benefits as "what the product does" and attributes as "what the product is." For example, a consumer purchasing an automobile could look for the attribute "mileage" or the benefit "economy in use".ⁱ

Imagery Generation

Imagery generation refers to the act of engaging in imagery processing. Building on previous research (e.g., Bone and Ellen 1992), three constructs are detailed under imagery generationⁱⁱ. *Occurrence of imagery* relates to consumers' efficacy in generating imagery (i.e., whether they are successful in generating imagery on the particular occasion). *Ease of imagery* reflects the effortlessness with which images are generated. Finally, consistent with Bone and Ellen (1992), *imagery vividness* refers to "the clarity with which the individual experiences an image" (p96).

Imagery Elaboration

Two broad dimensions relating to imagery elaboration are the *extent* of elaboration undertaken as well as the *content* of such elaboration. *Extent* refers to the degree of imaginal processing undertaken by the consumer. This variable is similar in principle to the imagery quantity variable posited by Bone and Ellen (1992). However, while they describe the quantity variable as simply the number of images generated, we conceptualize extent of imagery elaboration as having several sub-dimensions. Specifically, extent of imagery elaboration could be derived from: (1) *concepts* - the number of distinct thoughts or ideas captured in the imagery experience; (2) *modality* - the number of senses (e.g., visual, auditory, olfactory, tactile etc.) captured in the imagery experience; (3) *scenes* - the number of separate events captured in the imagery experience and (4) *breadth* - the range of content categories captured in the imagery experience (as stated below, the content categories we identify are attributes, benefits, users and context).

To our knowledge, no studies to date have examined the content of the imagery experience. However, as we discuss later, to understand the mechanisms that underlie imagery effects, we need to examine not just *whether* and *how much* imagery is undertaken but also *what* people imagine. As Figure 1 indicates, we conceptualize imagery content as having several sub-dimensions. *Product imagery* reflects ideas in the imagery experience relating to the attributes (i.e., features) of the advertised brand. *Use imagery*, on the other hand, refers to ideas in the imagery experience relating to use of the product. Although both use and product imagery are related to the product, product imagery simply implies imagery of the product's features, while use imagery reflects an interaction between a consumer and a product.

It is important to note that use imagery is not synonymous with the concept of self-oriented imagery studied by other researchers (Anderson 1983; Bone and Ellen 1992). Rather, use imagery involves imagined interactions between the product and any person (be it the self or someone else). It is this interaction component, perhaps more than the self-orientation component per se, that we argue affects brand attitudes and brand attitude formation processes. Use imagery is comprised of (1) user imagery - imagery relating to the person(s) using the product and (2) benefit imagery - imagery relating to the advantages derived from product-person interactions. Finally, *context imagery* refers to ideas in the imagery experience relating to the scenario/setting.

Consumer Outcomes

Consistent with previous research examining alternative routes to persuasion (Burke and Edell 1989; Edell and Burke 1987; MacInnis and Park 1991), the model in Figure 1 depicts two processes by which imagery processing may generate desired consequences. One is a *belief-based* process in which the dimensions of imagery processing are anticipated to affect the salience or strength of specific product-related information in consumers' minds (cf. Fishbein and Azjen 1975). The second route works by generating positive *feelings*, which are transferred to the advertised brand.

Communication Goals

The final stage in the model relates to the ultimate consequences that the advertiser hopes to achieve through the communication. We focus on two such goals, viz., *attitudes* and *purchase intentions*. While other objectives such as memory may be equally important, given our stated purpose of understanding the impact of imagery instructions on persuasion, we restrict ourselves to goals relating to persuasion. Further, since the only study to produce consistently positive effects on persuasion from the use of imagery instructions (Gregory et al. 1982) examined attitudes and purchase intentions, we chose to examine the same two variables in our research.

HYPOTHESES

We now develop specific hypotheses relating to each stage of the process described in the conceptual model.

Effects of Imagery Instructions, Ad Modality and Ad Focus on Imagery Generation.

In this section, we provide the theoretical rationale for the anticipated moderating roles of ad modality and ad focus in the effectiveness of imagery instructions.

Role of Ad Modality Most studies on imagery in advertising have focused on the visual mode by using print ads while a few studies have used radio ads (e.g., Bone and Ellen 1992; Miller and Marks 1992). However, systematic comparisons across media have not been undertaken (with Unnava, Agarwal and Haugtvedt [1996] being the sole exception). This gap in the literature is surprising because several ads in different media solicit imagery, either implicitly or explicitly, and it would thus seem necessary to assess the effectiveness of the use of these techniques in the various media.

Fortunately however, studies in cognitive psychology have investigated the modality-imagery linkage. As Alesandrini (1982) notes, "one problem with trying to induce the learners to use mental imagery while reading is that the act of reading tends to interfere with imagery production, because both activities presumably involve some visual information processing." Consistent with this interpretation, Levin & Divine-Hawkins (1974) found that the effect of imagery instructions on recall of a passage was greater when children listened to it rather than read it. A second experiment replicated the findings in that reported imagery generation was greater under the listening condition, even when the passage was presented at a faster rate.

Brooks (1967) found a similar effect on mental imagery in adults. Reading verbal messages interfered with imagining the spatial relations described by them; however, listening to the messages did not produce comparable interference. Interestingly, when subjects were not required to visualize the messages, reading was a more effective means of presentation. This latter result is in keeping with the conventional belief that radio provides limited opportunity for elaboration compared to print. However, when used in conjunction with imagery instructions, given the lack of interference with the visualization process, radio would seem to facilitate imagery generation. Although they used imagery-rich copy (rather than instructions to imagine), the results of Unnava, Agarwal and Haugtvedt (1996) are supportive of this notion. Specifically, they found that imagery-rich ad information is learned better when it is presented auditorily.

To summarize, in the words of Alesandrini and Sheikh (1983), "the effects of telling an audience to form mental images while hearing or reading an advertising message have not been

empirically tested, but the literature on imagery inducement suggests that imagery instructions may be especially effective with non-print media, such as radio."

Role of Ad Focus Only a few exploratory studies have examined the effects of attribute vs. benefit orientation in marketing communications (Bozinoff and Roth 1984; Lautman and Percy 1984). Further, there are no studies that examine the relationship between imagery eliciting strategies and attribute/benefit orientation in ads.

The only evidence, albeit indirect, to support an interaction between imagery instructions and attribute vs. benefit ad focus derives from psychobiological research by Lang, who developed and tested a theory of emotional imagery in a series of studies (Lang 1977, 1979; Lang et al 1980). Subjects were trained either to develop response-oriented images or to produce images rich in stimulus detail. The imagery script provided to subjects also emphasized either stimulus detail or active responding (Stimulus-oriented scripts provided detailed descriptions of scenes whereas response-oriented scripts stressed active involvement of the subject in the scene). Response-trained subjects showed greater physiological activity during imagery and rated their imagery as more vivid. Subjects given response-oriented instructions also reported more emotional arousal.

In our context, since attribute-oriented ads merely state the features of products, they could be considered "stimulus-oriented". On the other hand, benefit-oriented ads suggest the advantages arising from the product and therefore they may have greater potential for inducing response-oriented imagery. Thus, the effectiveness of imagery instructions in generating imagery may be enhanced when ads with a benefit focus are used.

When the role of ad focus and ad modality are considered in conjunction with each other, the evidence points toward maximum facilitation from imagery instructions on imagery generation for benefit-oriented ads in the auditory modality. Thus,

H1: Imagery generation is greatest when subjects are given imagery instructions and ads are presented aurally (vs. in written mode) and ads are benefit (vs. attribute)-oriented.

Effects of Imagery Instructions and Ad Modality on Content of Imagery Elaboration

Instructions to imagine may also combine with ad focus to influence the content of imagery elaboration. Specifically, ads that focus on benefits might encourage subjects to imagine the experience of using the product and enjoying its benefits, i.e., to generate use imagery. On the other hand, ads that focus on attributes alone might restrict consumers to imagery that incorporates details of product features, i.e., product imagery. For example, stating that an automobile is 'easy to maneuver' makes it easier for subjects to imagine themselves driving a car and having better control over it than stating that it has a 'power steering.' Thus,

H2a: Product imagery is greatest when imagery instructions are provided and the ad is attribute (vs. benefit)-oriented.

H2b: Use imagery is greatest when imagery instructions are provided and the ad is benefit (vs. attribute)-oriented.

Effects of Imagery Generation on Imagery Elaboration

We earlier stated the predicted effects of ad factors on imagery generation. Imagery generation, in turn, should have an impact on the imagery elaboration variables. In other words, individuals who are successful in generating imagery and are able to do so easily and vividly are more likely to have deeper and richer elaborative experiences. Thus,

H3: The greater the imagery generation, the greater the likelihood of imagery elaboration regarding use, product, and context, and the greater the extent of imagery elaboration (i.e., the greater the breadth and the number of concepts, modalities and scenes).

Effects of Imagery Elaboration on Consumer Outcomes

The Effect of Product Imagery on Beliefs

Several studies have shown that imagining an event affects perceptions of the event's likelihood i.e., the very act of visualizing an event makes it seem more likely (Anderson 1983; Carroll 1978; Gregory et al 1982; Sherman 1984). Therefore, imagining a product's features should strengthen individuals' convictions regarding the presence of those features in the advertised brand. Thus,

H4: The greater the product imagery, the stronger are consumers' beliefs about the brand.

The Effects of Use Imagery on Beliefs and Feelings

When consumers imagine the use of a product and the benefits resulting from such use, they might experience favorable emotions and feelings. Further, as mentioned above, the very act of imagining such benefits might convince consumers of their existence in the product. For instance, a person could imagine a comfortable ride in an automobile and visualize the plush seating, smooth ride etc. This image could convince the individual that the particular car would indeed provide a comfortable ride (beliefs) as well as make the individual experience positive emotions due to the comfort of the car. Thus,

H5: The greater the use imagery, the more positive are consumers' feelings and the stronger are their beliefs about the brand.

The Effect of Context Imagery on Feelings

The context of the imagery may also affect feelings. Elaboration that reflects the context in which the product is used is likely to cue affectively tagged schemata related to the context itself. Thus, for example, if one imagines oneself sitting in a jacuzzi in Vail, one is likely to not only evoke feelings related to the experiential benefits of brand usage but also how wonderful it would feel to be in Vail. Since these feelings form part of the overall imaginal experience, they should be tied into the emotions relating to the brand. Thus, assuming that the context is typically associated with schemata that are positively tagged in their affective experience, we would expect that:

H6: The greater the context imagery, the more positive are consumers' feelings about the brand.

The Effect of Extent of Imagery Elaboration on Beliefs and Feelings

Finally, since the extent of imagery elaboration is an indication of the depth as well as breadth of imaginal processing, it should also significantly affect beliefs and feelings. In other words, consumers who generate very elaborate images are more likely to experience stronger beliefs and more positive feelings. Thus,

H7: The greater the extent of imagery elaboration, the stronger are consumers' beliefs and the more positive are their feelings about the brand.

The Effects of Feelings and Beliefs on Brand Attitudes and Purchase Intentions

As noted earlier, researchers in marketing have shown that both beliefs and feelings are important contributors to persuasion (Burke and Edell 1989; Edell and Burke 1987; MacInnis and Park 1991). Consistent with this research, we predict that:

H8a: The more favorable consumers' feelings about the brand, the more positive are their brand attitudes and purchase intentions.

H8b: The stronger consumers' beliefs about the brand, the more positive are their brand attitudes and purchase intentions.

METHODOLOGY

Design and Subjects

The study uses a 2 (imagery instructions: present vs. absent) x 2 (modality of ad information: written vs. auditory) x 2 (focus of ad information: attributes vs. benefits) fully crossed between subjects factorial design. One hundred and fifty five undergraduate business students from a large southwestern university were recruited for the study. Subjects received course credit in introductory marketing classes for participation in the study.

Stimulus Materials

The stimulus materials consisted of four ads, one of which was the target ad. The target ad was for a jacuzzi with the fictitious name, Delight. The other ads described a computer, luggage and a limousine service. Fictitious brand names were used in all the ads in order to avoid any confounding effects due to prior exposure to the brands. The product categories were selected after a series of pretests.

Initial identification of product categories for pretesting was based on several criteria. First, the category should be such that subjects are likely to have had prior experience with it. This was important because, as noted earlier, it is difficult to generate imagery for new concepts. However, prior experience with the product class should not automatically imply predisposition toward purchase. For instance, Lautman and Percy (1984) studied subjects who had used diet products; unfortunately, users of diet products were predisposed toward purchase of any brand that had the requisite characteristics (such as low calories). In addition, the product should have a sufficient number of relevant and concrete attributes/benefits. Further, the product should be a high involvement product so that subjects may be motivated to undertake elaboration using imagery.

A set of nine products that fulfilled these criteria was developed and Consumer Reports magazines were consulted to generate attributes and corresponding benefits for each product. In the first round of pretests, groups of subjects rated various aspects of the products and their attributes/benefits. For example, subjects rated the familiarity and likability of the products and the relevance and concreteness of the attributes/benefits. We also examined whether subjects were able to correctly classify the product claims provided as attributes vs. benefits. Finally, subjects' perceptions of the equivalence between the attributes and benefits were examined.

The results of the above pretests were used to reduce the set of categories to the four mentioned earlier and to refine the descriptions of the attributes/benefits. The four categories, each with six pairs of claims, were subjected to another round of pretests that examined the same kinds of issues as the previous pretests. Based on the results, a subset of claims was identified for each category. The three attributes used in the target ad indicated that the jacuzzi could seat up to six people, that it had lounge seating and that it had grooved steps. The corresponding benefits stated that the jacuzzi was designed to allow the whole family to use it comfortably, that it allowed people to stretch out and relax in it and that it was built to enable people to safely and easily get into it. On average, 80% of the pretest subjects correctly classified the attributes as such while 72% did so for the benefits. The average equivalence rating for the three attribute/benefit pairs was 5.24 (out of 7).

After selection of the claims, print ads were developed for each product category. Each ad included the brand name, a scenario, the claims (attributes or benefits) and a tagline. For the ads used in the imagery instructions conditions, the word 'imagine' preceded mention of the claims. For the auditory versions, the same information was recorded as a radio ad, with the voiceover being provided by a professional radio artist.

Procedure

Subjects were told that their task was to view/hear the ads presented to them and to later provide their opinions on them. Subjects in the 'imagery instructions' conditions were also asked to try to imagine the information conveyed in the ad and develop a mental picture of the product descriptions. Subjects then either listened to audio recordings (auditory modality) or viewed ads on overhead transparencies (visual modality). As mentioned above, focus of ad information was

manipulated by exposing half the subjects to ads that contained attributes and the other half to ads that mentioned the corresponding benefits.

The speed of information presentation in the auditory mode was kept identical to the exposure time allowed for each ad in the written mode to ensure equal opportunity to generate imagery across conditions. Since previous research (e.g., Lesgold et al 1974) has revealed no benefit from imagery instructions when subjects are given limited time to process the information, subjects were allowed 45 seconds to process each ad. The adequacy of this exposure time was ascertained through a pilot test.

Once subjects had been exposed to all the ads, dependent measures relating to attitude and purchase intentions were administered. Subjects then completed the Style of Processing scale. Following this, subjects were asked about the feelings elicited by the jacuzzi ad. They were then tested on their memory for the product's claims. The imagery generation measures were administered next. Subjects were also asked to describe in detail the images that they generated. The strength of subjects' beliefs regarding the product claims was then assessed. Finally, manipulation check and various covariate measures were obtained.

Dependent Measures

Attitudes. Brand attitudes were measured using four seven-point semantic differential scales: unfavorable/favorable, very bad/very good, unappealing/appealing and not at all likable/extremely likable. The average of the scores for the four items represents the dependent variable of attitude.

Purchase Intentions. Subjects indicated on 7-point scales (a) how likely it was that they would try the brands (not at all likely/extremely likely) and (b) how probable it was that they would buy it (not at all probable/extremely probable).

Feelings. Subjects' feelings were assessed by providing them with a list of positive and negative emotions (excited, happy, amused, angry, disgusted, bored, skeptical, sad, interested, involved, irritated, surprised) and asking them to indicate the extent to which they experienced each emotion using seven-point scales (not felt at all/strongly felt).

Beliefs. Beliefs were assessed by asking subjects how probable it was that the brand possessed each of the advertised attributes/benefits (not at all probable/extremely probable).

Imagery Process Measures

Subjects were asked to indicate whether they tried and were able to develop mental pictures while they read/listened to the ads. They were also asked to indicate the extent of difficulty they faced in forming the images (not at all difficult/extremely difficult). Subjects who reported using mental imagery were asked to rate the vividness of their images. Three seven-point rating scales measured their extent of agreement (strongly disagree/ strongly agree) with the following statements: "I only formed a hazy image in my mind", "I had formed an extremely vivid image" and "The image that I formed was not at all clear".

Subjects' descriptions of their imagery were coded to obtain the imagery elaboration measures. As in protocol analysis, each sentence was parsed into individual idea units. These idea units were then evaluated to generate scores for each subject in terms of the number of attribute-related, benefit-related, user-related and context-related responses as well as the total number of thoughts (concepts), modalities and scenes in the imagery.

Manipulation Check

In order to verify the focus of ad information manipulation, subjects were provided with explanations regarding the meaning of attributes vs. benefits and were then asked to assess whether the brand claims in the ads were in the form of attributes or benefits.

Covariates

The Style of Processing questionnaire (SOP - Childers et al. 1985) was used to measure subjects' processing style preferences (visual/verbal) since these preferences may affect subjects' propensity for imagery generation. Subjects also used 7-point scales to rate the relevance and concreteness of each claim made in the target ad. Further, we obtained subjects' perceptions relating to various aspects of the product categories (such as knowledge of category, likability, complexity etc.) using seven-point scales (not at all vs. extremely knowledgeable, likable complex). Finally, we asked subjects to indicate their gender.

RESULTS

Stimulus Appropriateness Checks

An initial set of analyses was conducted to ensure that the stimuli met the criteria that were set forth earlier. First, since imagery is unlikely to be generated for new or difficult

concepts, it was important to demonstrate that subjects had at least some knowledge about the product category and did not find the category too complex. Mean scores for the two variables revealed that subjects were moderately knowledgeable about the product ($\bar{X} = 3.84$) and found it fairly low in complexity ($\bar{X} = 3.23$). Further, since stimuli are more imageable when they are concrete (vs. abstract), we also needed to ensure that subjects perceived the attributes and benefits to be at least reasonably concrete. As the mean score for concreteness ($\bar{X} = 4.68$) indicates, subjects found the attributes/benefits to be somewhat more concrete than abstract. Finally, we examined whether the attributes and benefits were considered relevant for the category. The results revealed an average relevance score of 5.14, thereby indicating that the attributes/benefits did seem relevant to consumers.

Random Assignment Checks

The next set of analyses sought to ascertain whether subjects in the various experimental conditions differed with respect to Style of Processing (SOP), gender and product category knowledge. Moreover, it was important to examine whether subjects differed in their perceptions of the complexity and likability of the product category and the concreteness and relevance of the claims. This exploration was important because each of these factors may influence imagery processes and outcomes and thus, if differences exist, the variables need to be included as covariates to minimize confounds in explaining any observed results.

The experimental conditions were not found to differ in consumers' SOP scores, gender, claim relevance or perceived product complexity. However, claim concreteness and product knowledge and likability did vary based on the focus of ad information. Specifically, consumers exposed to attribute-oriented ads ($\bar{X} = 4.17$) reported being more knowledgeable about jacuzzis than consumers exposed to benefit-oriented ads ($\bar{X} = 3.41$). Further, consumers receiving the attribute-oriented versions liked the product category more ($\bar{X} = 6.21$) than consumers exposed to the benefit-oriented ads ($\bar{X} = 5.91$). Finally, the attributes were perceived as more concrete than the benefits (\bar{X} s = 5.19 and 4.31 respectively). Therefore, claim concreteness, product category knowledge and likability are all used as covariates while testing the conceptual model and hypotheses.

Manipulation Check

71% of the subjects in the attribute-oriented conditions classified the attributes correctly while 64% of the subjects in the benefit-oriented groups accurately categorized the benefits. Thus, in general, subjects' perceptions corresponded to the designed manipulation.

Empirical Measures

Imagery. A factor analysis on the three vividness items revealed that they loaded on a single factor ($\alpha = .77$). Thus, the summed index was used as the measure of vividness. However, correlations among the three dimensions of imagery generation (viz., occurrence, ease and vividness) were fairly high (.78 to .84). Thus, all three variables were combined to form a composite measure of imagery generation. Similarly, extent of imagery elaboration was treated as a single variable comprised of the four constituent elements (breadth, modalities, scenes and concepts).

Dependent Measures. The summed index of the belief scores for the individual claims was used to represent beliefs. A factor analysis on the emotions scores revealed three factors: positive feelings (happy, excited, interested, involved, not bored, surprised, amused; $\alpha = .84$); negative feelings (angry, disgust, irritated, sad; $\alpha = .75$) and skepticism. Since we are interested in examining what imagery processes might lead to favorable emotions, the seven items representing positive feelings were alone included in the aggregate feelings measure. Finally, a factor analysis on the measures for attitude and purchase intentions revealed that the indicators loaded on a single factor explaining 78% of the variation ($\alpha = .93$). Hence, a single, combined dependent variable was used to represent communication goals.

Hypotheses Tests

A series of linear models were run to systematically examine the various stages of the conceptualized process. These models explored the effects of each class of variables on each subsequent class of variables, both directly and upon inclusion of other preceding/intervening variables. We begin by discussing the results for the specified hypotheses, following which we will describe additional findings.

The results of the hypotheses are presented in four parts, corresponding to each successive class of dependent variables in the conceptual model. Thus, we first report the results for the effects of ad factors on imagery generation. Then, we discuss findings relating to the

effects of ad factors and imagery generation on imagery elaboration, followed by the effects of imagery elaboration on consumer outcomes. Finally, we examine the effects of consumer outcomes on communication goals.

Imagery Generation. The mean scores for imagery generation with respect to the ad factors are shown in Table 1 and the ANOVA results are provided in Table 2. There was a significant 3-way interaction among imagery instruction, ad modality, and ad focus ($F(1,138) = 4.60, p < 0.04$). As hypothesized, imagery generation was greatest in the imagery instruction/auditory ad modality/benefit focus condition and lowest under the no imagery instruction/written ad modality/attribute focus condition (\bar{X} s = 15.65 and 23.05 respectively). Thus, H1 was supported.

Another interesting pattern in the means merits discussion. Specifically, when imagery instructions were provided, benefit-oriented ads in the written mode fared the worst in generating imagery ($\bar{X} = 16.21$); by contrast, when imagery instructions were *not* provided, benefit-oriented ads in the written mode fared the best at generating imagery ($\bar{X} = 21.32$). This pattern can be interpreted in accordance with the interference explanation posited for modality effects. In other words, when imagery instructions were not provided, benefit-oriented ads appear to have been quite effective in inducing spontaneous imaging as they were viewed visually. However, when imagery instructions were provided, subjects' explicit attempts to generate imagery appear to be impeded by the visual mode of presentation.

 Insert Table 1 About Here

 Insert Table 2 About Here

Imagery Elaboration. The effects of the interaction between imagery instructions and ad focus on the imagery elaboration variables are shown in Table 3. As anticipated (H2a), product imagery was greatest when imagery instructions were provided and the ad was attribute-oriented ($F(1,138) = 5.14, p < 0.03; \bar{X} = 1.39$ vs. .5, 1.08 and .98). This interaction remained significant even when imagery generation was included in the model ($F(1,137) = 3.79, p = 0.054$). However, for use imagery, no significant effect of imagery instructions and ad focus was found (H2b).

Insert Table 3 About Here

The overall effect of imagery generation on imagery elaboration was highly significant with $p < 0.001$ for all four imagery elaboration variables (product, use, context and extent; see Table 4). This effect remained even when the ad factors were added to the equation. Therefore, H3 was strongly supported.

Insert Table 4 About Here

Beliefs and Feelings. The effects of imagery elaboration on consumer outcomes such as beliefs and feelings are summarized in Table 5. The impact of product imagery on belief strength was not significant; thus, H4 was not supported. Similarly, use imagery did not have a significant influence on belief strength. However, use imagery had a significant impact on feelings ($t = 2.6$, $p = 0.01$). Thus, H5 was only partially supported.

Insert Table 5 About Here

Regarding H6, the direct effect of context imagery on feelings (i.e., when only the elaboration variables were considered) was not significant (see Table 5). However, when imagery generation was added to the equation, the impact of context imagery on feelings was near significant ($t = 1.91$, $p < 0.06$). Further, when ad factors were also included, context imagery had a significant effect on feelings ($t = 2.04$, $p < 0.05$). By contrast, the impact of use imagery on feelings was much more robust. Not only did use imagery have a direct impact on feelings (as mentioned above) but it also retained its significant role in the latter two models ($p = 0.005$ and 0.009 respectively). Thus, it appears that, while context imagery may play a role in inducing positive feelings, its effects may be overridden by the strong impact of use imagery.

Finally, extent of imagery elaboration did not have a significant effect on either beliefs or feelings; thus, H7 was not supported.

In short, consumers' feelings were primarily influenced by use imagery and to a lesser extent, by context imagery. Moreover, product, use, context and extent of imagery elaboration had no bearing on consumers' beliefs.

Brand Attitudes and Purchase Intentions. Communication goals, namely brand attitudes and purchase intentions, were significantly affected by feelings ($t = 9.97, p < 0.001$) and hence H8a was supported. However, the effect of belief strength on brand attitudes/purchase intentions (H8b) failed to be significant (see Table 6). The impact of feelings on attitudes/intentions remained significant, even as each preceding set of variables was added to the equation ($p < 0.001$ in all models). However, beliefs attained significance only in the full model (i.e., when all variables were considered) ($t = 2.24, p < 0.03$). Thus, at best, beliefs had a weak effect on attitudes/intentions while feelings had a strong and robust impact on communication goals.

 Insert Table 6 About Here

Additional Effects. We now discuss additional effects that emerged from the series of linear models that were examined. First, imagery instructions had a direct effect on attitudes/purchase intentions ($F(1,138) = 7.48, p < 0.008$). This effect survived even after inclusion of all the intervening variables (i.e., in the full model; $F(1,130) = 5.74, p < 0.02$). Thus, just the provision of instructions to imagine appears to have a positive impact on persuasion, above and beyond the effects due to imaginal processing.

Second, imagery generation had a direct effect on feelings ($t = 4.76, p < 0.001$). This effect survived even when the imagery elaboration variables were included in the model (both use imagery and imagery generation were significant in this model). Thus, in addition to the feelings induced by use imagery, the very act of generating imagery easily and vividly has a positive effect on feelings ($t = 2.03, p < 0.05$).

Third, imagery generation also had a direct effect on attitudes/purchase intentions ($t = 4.05, p < 0.001$). However, when the elaboration variables, beliefs and feelings were considered in the equation, the effect became nonsignificant (while feelings had a significant impact). Thus, the effect of imagery generation on attitudes/purchase intentions is mediated through feelings.

Finally, use imagery had a direct effect on attitudes/purchase intentions ($t = 2.32, p < 0.03$). However, when beliefs and feelings were considered in the equation, the effect became

nonsignificant (while feelings had a significant impact). Thus, the effect of use imagery on attitudes/purchase intentions is also mediated through feelings.

In summary, ad factors were found to significantly affect imagery generation, which in turn influenced all the dimensions of imagery elaboration. The ad factors also had an impact on the degree of product imagery that was generated. Furthermore, use imagery (and to some extent, context imagery) significantly affected feelings which then led to more positive brand attitudes/purchase intentions. In addition, imagery instructions had a direct effect on attitudes/purchase intentions while imagery generation directly impacted feelings. These results are summarized in the empirical model depicted in Figure 2.

Insert Figure 2 About Here

DISCUSSION

The present study adds to the burgeoning research in the area of imagery eliciting strategies, imagery processing and persuasion. While past studies have demonstrated a positive relationship between imagery processing and brand attitudes/purchase intentions, it is not clear to what extent imagery instructions can be relied on to stimulate imagery processing and subsequent outcomes. The evidence to date in support of a role for imagery instructions in persuasion is meager and contradictory (Gregory et al. 1982; Mowen 1980). Moreover, relatively little insight has been gained into the processes by which imagery eliciting strategies affect persuasion.

Broadly, the present research suggests that imagery instructions can invoke imagery processing, when ads are presented in the auditory (vs. written) mode and focus on the benefits (vs. the attributes) associated with the product. The evocation of imagery processing is in turn associated with elaborative imagery that is both broad in content (including imagery of the product, its usage, and the context surrounding its use) and rich in detail (using multiple modalities, concepts and scenes). The elicitation of use-oriented imagery is particularly valuable. Our results suggest that inducing use-oriented imagery is instrumental to the development of positive feelings about the brand, which in turn, are strongly related to brand attitudes/intentions.

More specifically, our predictions regarding the joint effects of the three factors (imagery instructions, modality, and ad focus) were validated. Thus, we have shown that imagery instructions do have an impact on (the occurrence, ease and vividness of) imagery generation when used in conjunction with aurally presented, benefit-oriented ads. These results support the idea that ads that focus on the benefits associated with a product may generate imagery that is more vivid and enhance the number of relevant associations in memory (Lang 1977; Lang et al. 1980). The findings are also consistent with the notion that imaging and perception compete for the same resources (Brooks 1967; Unnava, Agarwal, and Haugtvedt 1996). Thus, since imagery requires some visual information processing, ads presented aurally may interfere less with the visualization process.

Interestingly though, our results suggest that there may be differences in the resources required when individuals deliberately set out to generate imagery vs. when they may automatically do so given the nature of the stimuli. Specifically, we found that the visual modality is conducive to spontaneous imaging of benefit-oriented ads in the absence of explicit imagery instructions; however, planned imagination of these ads in response to instructions appears to require more effort and is hindered in the written mode.

Our results also indicated an unanticipated direct effect of imagery instructions on attitudes/purchase intentions, above and beyond any effects mediated through imagery processing. Thus, it appears that the mere presence of imagery instructions (as long as they are not too blatant, cf. Mowen 1980) can have a persuasive impact.

By decomposing imagery elaboration into various dimensions, we were able to examine whether and how imagery instructions influence imagery processing. Our typology identified a set of variables related to what subjects imaged i.e., the content (the product, its usage, and the context of its use) and how deep their imagery was i.e., its extent (the number of scenes, modalities and concepts, and the breadth of coverage). The results revealed that the content of imagery elaboration was affected by the imagery instructions and ad focus manipulations. Specifically, imagery instructions produced more product-related imagery (i.e., incorporating details of product features) when the ads were attribute-oriented. Since attribute-oriented ads merely state the characteristics of the product, they may elicit less subject involvement in their images and restrict them to product or feature-related images derived from the ad information.

Quite understandably, fluency in imagery generation also had an impact on imagery elaboration. Thus, individuals who were able to generate images easily and vividly were more prone to elaborate on all aspects of imagery content (in terms of product, use and context imagery) as well as generate more detailed images (in terms of the number of concepts, scenes, modalities etc.).

As regards the effects on consumer outcomes, imagery generation was found to have a direct impact on feelings; thus, the very process of generating vivid images with ease seems to be pleasurable. Of the various imagery elaboration dimensions, use imagery emerged as the critical variable that also contributed to feelings. This finding represents an important contribution to the imagery literature since no other study has investigated the mediating role of various dimensions of imagery elaboration. Although feelings are known to effectively alter brand attitudes, how and when imagery worked to evoke positive feelings was not clearly understood.

Use imagery is decomposed into images related to benefits accrued from product use and images related to users. Imagining the benefits derived from the use of a product (jacuzzi in our experiment) can enable an individual to experience the positive feelings associated with those benefits. For instance, elaborating on the benefits of using a jacuzzi (such as relaxing warmth) can induce positive feelings. Furthermore, imagining a person using the product can offer a positive sensory and emotional experience akin to consumption (vicarious consumption). In the case of a jacuzzi, imagining (oneself or someone else) being seated in a jacuzzi can induce the individual to vicariously experience the satisfaction from use.

Person-related imagery, especially self-related imagery, has been shown to affect attitude toward the ad (Bone and Ellen 1992). However, their research was not able to show a significant relationship between person-related imagery and brand attitudes or purchase intentions. While self-related imagery may indeed be more involving than other-oriented imagery, our study elucidates the importance of another aspect of person-related imagery, namely, whether the person is interacting with the product. Such user imagery (as part of use imagery) played a key role in generating positive feelings and thereby, influencing brand attitudes/purchase intentions.

Finally, positive feelings had a direct impact on brand attitudes and purchase intentions. Further, feelings mediated the impact of imagery generation and use imagery on brand attitudes/purchase intentions. These results are in line with the findings of Gregory et al. (1982)

that imagining oneself performing a certain task increases attitudes and behavioral intentions. Thus, we add to the scant evidence relating to the beneficial role of imagery instructions on persuasion. However, our unique contribution lies in identifying the mediational role of feelings. In sum, when individuals imagine using a product, they experience positive feelings, which then makes them more likely to change their attitudes toward the brand and/or intent to purchase.

Although many aspects of the conceptual model and its theoretical underpinnings were validated, not all of our hypotheses were supported. First, imagery instructions and benefit orientation of an ad did not significantly affect use imagery. One possible explanation for this lack of significance is that their effects have already been captured in the three-way interaction for imagery generation. In other words, since imagery instructions and benefit orientation combine with aural modality to influence imagery generation, which in turn affects use imagery, there are no residual effects beyond this path.

Second, none of the dimensions of imagery elaboration had a significant influence on beliefs. One reason for this might be our choice of product category. Since a jacuzzi can be considered an inherently hedonic and experiential product (rather than a functional one), the category might be more conducive to affective processing. Thus, the cognitive processing involved in updating belief strengths could have been limited.

The current study contributes to and extends the imagery literature in several ways. First, we have addressed some of the inconsistent results found in the literature regarding the efficacy of imagery instructions in influencing brand attitudes and purchase intentions. Specifically, we have identified three ad factors, namely imagery instructions, ad modality, and ad focus, which interact to enhance imagery generation. Second, we develop a richer conceptualization that outlines the process by which the ad factors may ultimately influence brand attitudes and purchase intentions.

Although the literature on imagery in the context of consumer behavior has been expanding, it has been limited to studies that examine the relationship between imagery generation and consumer outcomes or communication goals. Our paper builds on previous research on imagery by incorporating various dimensions of imagery elaboration as mediating factors between imagery generation and consumer outcomes. Thus we examine not only whether

consumers generate imagery, but also what and how they imagine in order to gain a deeper understanding of imagery processes and outcomes.

The present results afford some viable managerial implications. First, our results indicate the types of ads that may be best suited to evoke imagery, viz., benefit-oriented ads which provide claims and imagery instructions aurally. Second, brand attitudes and purchase intentions are mainly dictated by the level of positive feelings. Further, use imagery that emphasizes benefits derived from product use and user-product relationships is particularly helpful in positively shaping consumers' feelings. On the other hand, product imagery, which focuses more on the product's attributes, does not seem to affect feelings or beliefs. Thus, ads that can effectively induce use imagery as opposed to product imagery may have a higher probability of altering brand attitudes.

Several avenues for future research can be identified from our study. Given that our model identified use imagery as the overriding construct that affects feelings and thereby brand attitudes and purchase intentions, further investigation on how to induce use imagery would be valuable. For instance, future work could examine how various ad components could be adapted in order to stimulate consumers to engage in use imagery.

Further examination of the role of belief strength in imagery processing is also warranted. In order to facilitate a cognitive approach to imagery processing, such investigations should use product categories of a functional nature.

Although we provide a richer conceptual model in our work, the dimensions for elaborative imagery are by no means exhaustive. Further development as well as categorization of various imagery dimensions could help mature the field. In addition, while we examine and account for various individual and product factors (such as gender, product likability, product knowledge, product complexity etc.) in the testing of the conceptual model, exploring these and other variables explicitly as moderators would be of considerable value.

Despite the promising results of the effects of imagery in an advertising context, there still remain needs to refine the existing measurements of imagery processing. Some researchers have argued that imagery cannot be adequately measured through written responses since respondents are rarely able to iterate what they think or know (Nisbett and Wilson 1977). Still

others contend that even if adequate scales are developed to assess imagery, they merely measure the respondent's memory for images, not the images themselves. Thus, the imagery literature needs continued effort in developing and refining these measurements.

In conclusion, this paper attempts to address the seemingly inconsistent results regarding the effects of imagery instructions on persuasion by examining the moderating role of other ad factors. We also provide a conceptualization of the process by which imagery instructions might influence various communication goals. While our results provide new insights regarding imagery processes and outcomes, a more comprehensive look at the effects of imagery instructions and imagery processing dimensions is undoubtedly needed.

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ENDNOTES

i. Although many ads actually represent a combination of attributes/benefits, studying the effects of each in isolation is relevant both because few studies have been conducted in the area and because it provides a vantage point from which to compare ads that represent different combinations of attributes/benefits.

ii. While imagery generation may be contingent on both individual and ad factors, we are explicitly controlling for individual difference factors (such as style of processing preferences, knowledge and likability of product etc.) and in this process model, we are only interested in examining the role of ad factors in influencing imagery generation.