Assessing When Increased Media Weight of Real-World Advertisements Helps Sales

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A prevailing view is that increased media weight for frequently purchased brands in mature product categories usually does not lead to increases in sales. However, the role of advertising executional cues and viewer responses on media weight–induced sales has not yet been examined. The authors find that whether weight helps or has no sales impact depends on the creative characteristics of the advertisements and the responses they evoke in viewers. Study 1 showed that real-world advertisements for frequently purchased brands in mature categories were likely to create greater media weight–induced sales when they used affectively based executional cues. Study 2 found that greater media weight was related to the sales impact of advertisements that evoked positive feelings and failed to evoke negative feelings in viewers. The authors develop hypotheses related to these results within the context of prior work on consumer persuasion (including the elaboration likelihood model), memory processes, and advertising wearout.

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“Weight alone is not enough… [T]here is no simple correspondence between increased TV advertising weight and increased sales, regardless of whether the increased spending is compared to competition or not.” So conclude Lodish and colleagues (1995, p. 138), in their meta-analysis of 389 split-cable television advertising experiments. These findings, for frequently purchased brands in mature markets, are consistent with those of many ad weight tests reported in the literature. Eastlack and Rao (1989), Aaker and Carman (1982), Ackoff and Emshoff (1975) and Carroll and colleagues (1985) all conclude that statistically significant increases in sales as a result of increased ad weight are the exception rather than the rule.

Because media weight can be associated with greater reach and/or frequency, one conclusion from these real-world advertising studies is that consumers rarely respond to ad exposures and/or to being told the same thing more often. These conclusions, however, are at odds with research in the consumer information-processing literature, which finds that exposure to (reach) and repetition of (frequency) advertising are critical for creating effects that are thought to serve as precursors to sales—favorable brand associations, positive ad and brand attitudes, and greater salience of the brand in memory.

These different conclusions are likely due to differences in methodology and research objectives. In terms of methodology, ad weight experiments have focused primarily on modeling the impact of market factors and managerial decisions on sales response. Lodish and colleagues (1995; see also Batra et al. 1995, Eastlack and Rao 1989) find that increased television advertising is more likely to work for small brands and brands in growing categories. Changes in copy strategy, brand objectives, and media spending patterns also affect sales success. Unlike the consumer information-processing literature, however, these studies do not typically manipulate ad content, as alternative executional cues are not systematically evaluated. In contrast, the information-processing literature manipulates executional cues. But as McQuarrie (1998) points out, most of these studies are conducted in the lab under conditions of forced and highly concentrated exposures to novel/hypothetical advertisements for novel/hypothetical brands. Furthermore, rarely does this research examine the effect of advertising on consumer choice (at an individual level) or sales (at an aggregate level; for exceptions, see Haley and Beldinger 1991). And though the objectives of ad weight tests have invariably been to provide decision support to marketing managers rather than to develop new behavioral theory, the objectives of laboratory studies have been more theory driven in nature. Thus, there is a gap between the two research streams.
The purpose of this article is to help bridge this gap. We seek to better understand when (based on what ad content and which viewer ad reactions) increased media weight for real-world advertisements increases aggregate-level sales for mature brands in frequently purchased categories. We suggest that whether added media weight helps brands in such categories depends on whether the advertisement contains affectively based executional cues and whether it evokes positive feelings in viewers. Showing that the impact of increased media weight on sales depends on the type of ad executional cues and responses evoked in viewers is a novel contribution.

To test these ideas, we developed a database of television commercials that had been used in advertising weight tests. The database contains 47 advertisements, each tested in a different market experiment. Of these, 25 produced statistically significant increases in sales and were designated as weight sales positive (WSP), and 22 did not and were designated as weight sales neutral (WSN). Advertisements were coded as containing affectively based, heuristically based, and rational cues. Cue type was then used in a logit model of ad success. Results showed that advertisements that contained affectively based executional cues were more likely to be WSP than WSN. The use of heuristic and rational appeals was unrelated to advertisements' WSP versus WSN status.

The logic that drove the hypotheses in Study 1 was premised on the assumption that affectively based advertisements “work” by affecting consumers’ feeling responses. Because Study 1 focused on cues the advertisements contained, we designed a second study to investigate the link between consumer reactions to advertisements and WSP versus WSN status. More than 1300 consumers who fit the target market profile for the advertised brands were exposed to one of the tested advertisements embedded within the context of other advertisements and asked to indicate their reactions to it. As predicted, advertisements that produced positive feelings and limited negative feelings were more likely to be WSP than WSN. These effects were observed even when we controlled for several other viewer responses.

Although the use of existing advertisements introduces potentially confounding factors, the use of a naturalistic context enhances realism and generalizability compared with lab work. Thus, a strength of our study is the use of a context decidedly different from the lab paradigm. Furthermore, we extend research on executional cues by examining their effects on sales. Laboratory studies typically fall short of sales-based measures.

The sections that follow describe these ideas in greater detail. We first use prior theory on consumer information processing to suggest why advertisements that contain affectively based executional cues will be associated with WSP status but added media weight behind advertisements that use heuristic or rational cues in this same market context will not. We then describe a study (Study 1) that is designed to test these ideas. A second study (Study 2) supports and extends the results of Study 1 by examining how consumers’ feeling responses to advertisements differentiate WSP from WSN advertisements.

EXECUTIONAL CUES AND AD EFFECTIVENESS

The Elaboration Likelihood Model

A fairly large body of research in the consumer information-processing domain suggests that the persuasive impact of advertisements depends on the extent to which executional cues within the advertisement are compatible with consumers’ likely elaboration of brand information in the advertisement. Although several theories have been developed to explain these effects, most can be subsumed under one of several broad metatheories of persuasion, such as the elaboration likelihood model (ELM; Petty and Cacioppo 1983, 1986; Petty and Wegener 1999), which proposes that ad processing depends on the likelihood that consumers will think about brand information contained within the advertisement.

Central Route Processing and Rational Executional Cues

In some cases, consumers are highly motivated to process brand information in an advertisement. When motivated consumers also have the ability to process message arguments (e.g., because of prior category knowledge) and the time or opportunity to process the message, they will engage in central route (e.g., deep, systematic) processing, scrutinizing the advertisement and critically examining arguments that speak to the product’s quality. Message processing is deliberate and thoughtful.

Given the nature of processing, advertisements targeted to consumers who are high in motivation, ability, and opportunity are most effective when they contain rational executional cues that credibly demonstrate the benefits of the product compared with competitive offerings (e.g., Petty, Cacioppo, and Schumann 1983), as such cues enable consumers to engage in issue-relevant thinking and evaluate the true merits of the brand. The potential pool of rational cues includes those that are factual versus feeling based (e.g., Olney, Holbrook, and Batra 1991; Stewart and Furse 1986; Thorson and Page 1988), involve a message that indicates how the product is different from or better than competitive product offerings (Stewart and Furse 1986), contain a large number of arguments that clearly demonstrate product superiority (Petty and Cacioppo 1984a; Sewall and Sarel 1986), and focus on the product (MacInnis and Stayman 1993) and its attributes and benefits as opposed to appeals that focus more on the user (Maheswaran and Sternthal 1990; Malaviya, Keswani, and Sternthal 1996; Stewart and Furse 1986). Theories such as Fishbein and Ajzen’s multattribute model of persuasion and the cognitive response model of persuasion are subsumed under this central route to persuasion (e.g., Petty and Cacioppo 1983).

Peripheral Route Processing

In other cases, consumers’ motivation, ability, and/or opportunity to process ad information are low. Such consumers devote limited effort to processing message content or lack sufficient knowledge to interpret and understand attribute-based information. Brand-differentiating messages and attribute appeals are less likely to persuade such consumers, who lack the motivation to deeply process the message or lack attribute- and product-based knowledge to understand what the advertisements mean. Under these conditions, consumers tend to focus on easily processed or “peripheral” cues in the advertisement. Prior research has shown that under these low–elaboration likelihood conditions, cues such as an expert endorser, a similar endorser, or attractive pictures enhance persuasion. A broad way of conceptualizing these peripheral cues is in terms of the extent to which they are affectively based or operate as heuristic cues.
Affectively based cues and peripheral processing. One set of peripheral executional cues fits the category of affectively based or likable cues, including likable sources (Chaiken 1980; Kahle and Homer 1985; Petty and Cacioppo 1981; Petty, Cacioppo, and Schumann 1983), dramas (Deighton, Romer, and McQueen 1989), warm appeals (Aaker and Stayman 1990; Aaker, Stayman, and Hagerty 1986), visually appealing pictures (Grossman and Till 1998; Mitchell 1986; Mitchell and Olson 1981; Stewart and Furse 1986), and likable music (Bierley, McSweeney, and van Riel 1985; Gorn 1982; MacInnis and Park 1991). Prior research has found that such cues can induce positive feelings in viewers and positively influence ad and brand attitudes. These effects are particularly likely under conditions of low involvement, when motivation to process brand information is low. Various theories such as mood (e.g., Isen and Means 1983; Strull 1990) and classical conditioning (e.g., Gorn 1982; Gershon and Shimp 1985) have been offered to explain why such affectively based cues influence persuasion when motivation is low.

Heuristic cues and peripheral processing. Just as affectively based peripheral cues can enhance persuasion when motivation, ability, and opportunity to process information about the brand are low, so too can heuristic cues, which are shortcuts that enable inferences about brand benefits or quality. For example, although consumers may be unable to discern whether a brand is of high quality, they may come to believe it is when it is advertised by a credible source (Craig and McCann 1978; Sternthal, Dholakia, and Leavitt 1978), a source like themselves (Brock 1965), a partner regarded as an expert, or someone knowledgeable about the product category (Chaiken and Maheswaran 1994; Yalc and Elmore-Yalch 1984). Although consumers may be unable to diagnose technical features of the brand made in ad claims, they may make inferences about its benefits from such easily processed persuasion cues as ad-relevant pictures (Kahle and Homer 1985; Minard et al. 1991; Mitchell and Olson 1981) or relevant music.

Issues with the ELM

Although the ELM has gained considerable recognition, its application to managerial contexts has been limited. First, how will managers know whether consumers' motivation, ability, and opportunity to process the message are high or low? Second, how do consumers process advertisements when one of these antecedent variables (e.g., motivation) is high and another (e.g., ability) is low? Finally, the theory groups diverse processes (e.g., more cognitively based heuristic persuasion evoked from heuristic cues versus affectively based processing evoked from affective cues) under the general rubric of “peripheral” routes to persuasion. It is possible that various conditions dictate when certain types of peripheral cues (e.g., affectively based) are more effective than others (e.g., heuristic). One condition that may dictate when certain types of peripheral cues are effective is the extent to which the market is mature and brands in the category are frequently purchased.

STUDY 1: THEORY AND HYPOTHESES

Motivation and Ability for Frequently Purchased Brands in Mature Markets

Mature markets are those that have been in existence for some time. Such markets afford consumers considerable time to learn about competitive offerings, attributes related to brand quality, and attributes that differentiate brands in the market, particularly when the product is purchased on a frequent basis. Consumers are likely to be familiar with the names of competitive offerings and have likely developed brand schemas that characterize the image of various brands in the category. Opportunities to develop this knowledge come from the mature status of the category, as well as consumers' continuous exposure to offerings by virtue of their frequent purchase. By all these accounts, it can be surmised that consumers have high ability to process advertisements for frequently purchased brands in mature categories (Batra et al. 1995).

Although consumers' ability to process advertisements for brands in these categories is likely to be high, their motivation to engage in brand processing may be low. These frequently purchased, inexpensive brands are likely to absorb only a small amount of a consumer's budget and represent products that involve limited economic risk. Because the consequences of making a poor choice are not serious, ad processing is likely to be minimal (e.g., Petty and Cacioppo 1986). Furthermore, consumers may be relatively unmotivated to process information about a brand in a mature category, because when categories are mature, differentiation between brands is often low, which renders critical thinking about differences between brands unnecessary.

The notion that low motivation and high ability may characterize consumer information processing when markets are mature and purchases are frequent is consistent with classic models of buyer behavior (e.g., Howard 1977; Howard and Sheth 1969; see also Chandy et al. 2001), which posit that decision-making effort declines with experience in the product category, as would be the case when purchase within a category is frequent. Experience enhances knowledge (ability) and reduces consumers' need for (motivation to gather) information on the advertised brand. This notion is also consistent with standard views of media planning (see, e.g., Belch and Belch 1998, p. 318), which advocate increased advertising exposure when purchase is frequent, presumably because consumers' prior knowledge is high and their limited interest in (motivation to process) advertising messages necessitates increased exposure for a message to get through.

The Efficacy of Affectively Based Executorial Cues

The ELM suggests that because of consumers' low motivation to process brand information from the advertisement, advertisements are more likely to be effective when they contain peripheral executional cues—such as those that are affectively based or allow for inferences about the brand (e.g., heuristic cues). We argue, however, that because consumers' ability to process brand information in these contexts is high and motivation to process brand information is low, advertisements backed by greater media weight will be more effective when they are affectively as opposed to heuristically based. Some of the theoretical accounts suggest the effectiveness of affective cues by virtue of their effects on memory (enhanced encoding likelihood, mood), whereas others suggest effectiveness of affective cues by virtue of their effects on evaluations (mood, classical conditioning, wearout).

Enhanced encoding likelihood. Advertisements with positively valenced executional cues are likely to be effective
when motivation to process brand information is low and ability is high, because such advertisements are more likely to be encoded as a result of their inherently more pleasant character. In other words, they are more likely to elicit an approach than an avoidance response. Consistent with this effect, Olney, Holbrook, and Batra (1991) find that consumers devote more attention to feelings-based than factual advertisements and view the former longer before zipping or zapping them. Greater approach and less avoidance imply greater likelihood that advertisements can cue the brand from memory and therefore enhance the likelihood of brand name retrieval at the point of purchase. As evidence for this potential, Thorson and Page (1988) find greater brand name recall for emotional than nonemotional advertisements, and Page, Thorson, and Heide (1990) find superior recall of emotional compared with neutral commercials. Stewart and Furse (1986) find that feelings-based advertisements are associated with greater brand recall than are fact-based advertisements. Enhancing brand name recall may be important in low-involvement purchase contexts, because purchase may be based on the brand that comes to mind most readily (Hutchinson, Raman, and Mantra 1994; Nedangadi 1990).

Mood effects. Affectively based cues may also affect ad success through memory because of a different process—mood. Several studies have shown that consumers show greater recall of ad and brand information when their moods are positive versus neutral (e.g., Knowles, Grove, and Burroughs 1993). Stayman and Batra (1991) find that advertising associated with an affective state induced through a commercial increases the brand name’s accessibility from memory and thus influences brand choice. This affect-induced memory effect is greater under conditions of low than high involvement. Curren and Harich (1994) find mood effects on recall of brand facts when consumers are less involved in the evaluation decision (i.e., their motivation to process information is low). Others have shown that positive mood enhances the likelihood that consumers classify a brand as a member of a category and link it to other brands in memory (e.g., Lee and Sternthal 1999; Murray et al. 1990). The more linkages a brand has with other memory nodes, the greater is its probability of retrieval. As noted previously, increased recall may be important in low-involvement categories in which purchase might be contingent on the brands that first come to mind. Repetition of such advertisements strengthens the memory node, increasing its probability of brand name retrieval in a purchase context.

Note that the encoding and mood explanations are different. The encoding explanation suggests that affective cues affect sales by making it more likely that the ad information will be attended and therefore encoded. Mood theories (e.g., Isen and Means 1983; Srull 1980) suggest that mood affects sales by having an effect on retrieval and persuasion. Thus, the theories reflect different processes.

In addition to their effects on memory, affectively based stimuli may also evoke positive moods that bias consumers’ evaluations of the advertisement and brand. A consistent finding in both marketing and psychology is that consumers’ evaluations of a brand can be affected by their moods (e.g., Gardner 1985; Isen et al. 1978; Srull 1983). Consumers like advertisements and brands better when their moods are positive versus neutral or negative (Batra and Stayman 1990; Goldberg and Gorn 1987).

The effects of mood on ad and brand evaluation are particularly strong when consumers’ motivation to process information about the brand is low (Curren and Harich 1994; Forgus 1995). Several diverse theoretical accounts have been offered to understand why mood affects evaluations—among them are “mood maintenance,” “feelings as information,” contagion, and the reduction of cognitive elaboration. Although no one theoretical rationale has been universally supported, it remains clear that a positive mood can affect consumers’ evaluations of advertisements and brands, particularly under conditions of low motivation. For example, research on the contagion effects of mood has found that moods portrayed by a person (e.g., a happy actor in an advertisement) can automatically create facial feedback responses in a recipient (e.g., smiling), which alters the latter’s mood in a manner consistent with his or her facial expression (Hatfield, Cacioppo, and Rapsin 1992; Neumann and Strack 2000). Recent research has found that these contagion effects can affect product attitudes (Batra and Stephens 1994; Howard and Gengler 2001). Batra and Stephens (1994) further observe that the impact of affective cues on brand attitudes is automatic, working without the viewer’s conscious engagement and not dependent on the level of motivation.

Classical conditioning. Added media weight may also be associated with greater sales impact by virtue of a classical conditioning process. Classical conditioning premises that favorable reactions to advertisements are conditioned on simultaneous presentation of a positively valenced stimulus in an advertisement (e.g., a beautiful model, pleasant pictures) with the advertisement itself and the advertised brand. Repetition creates a link between the positively valenced stimulus and the advertisement and brand, which enhances ad and brand attitudes. In essence, positive feelings are responses conditioned on the presence of the advertisement and brand name (the conditioned stimuli). Classical conditioning theory relies not just on repetition but on repetition coupled with affectively based executional cues.

Research generally supports the classical conditioning of ad and brand attitudes (see McSweeney and Bierley 1984; Shimp, Stuart, and Engle 1991). Bierley, McSweeney, and Vannieuwkerk (1985) find that consumers rate stimuli more positively when the stimuli are associated with pleasant music than when they are not. Gorn (1982) finds that consumers are more likely to choose a product when it is advertised with pleasant than with unpleasant music. Kim, Allen, and Karides (1996) find classical conditioning effects using pleasant pictures. Aaker and Stayman (1990) suggest that the impact of warm appeals is heightened by repetition. Effects for humor have been more ambiguous (Allen and Madden 1985; Gelb and Zinkhan 1986), perhaps because not all consumers react universally to the same type of humor (e.g., what may be humorous to one person may be lacking in humor or even offensive to another). Several studies have failed, however, to find effects of conditioning on brand attitudes (Allen and Madden 1985; Gersham and Shimp 1985; Pitt and Abrand 1988). Others suggest that conditioning effects in the lab may be contingent on specific procedures, such as the timing of the conditioning stimulus compared with the unconditioned stimulus (see Shimp 1991).

The effects of classical conditioning appear to be strongest when consumers’ motivation to process brand
information is low. For example, Gorn (1982) finds that classical conditioning has no effect on choice when consumers' involvement in the choice decision is high, presumably because consumers invoke more rational and less affectively based processes in making the choice. Although Kellaris and Cox (1989) fail to replicate Gorn's (1982) pioneering conditioning study using more rigorous controls, the notion that conditioning may be more effective when motivation to process information is low is supported by Baker (1999), who finds that classical conditioning is effective in creating more favorable brand attitudes toward one of a set of brands when the brands are comparable and when consumers' motivation to process information about each brand is low. Low motivation and lack of differentiation among brands are likely characteristics of frequently purchased brands in mature categories.

Strong, positive stimuli enhance positive attitudes toward the conditioned stimulus; affectively weak stimuli have relatively little impact; and strong, negative stimuli engender negative attitudes (Shimp 1991). Therefore, strong, positively valenced conditioned stimuli should be more likely to produce a positive conditioning effect than are those with weak or negatively valenced unconditioned stimuli.

Less rapid wearout. Added media weight behind affectively based advertisements may also be effective, as such advertisements may wear out less rapidly. Wearout simply means that advertisements perform less effectively as a function of repeated exposures (Stewart 1999). Pechmann and Stewart (1988) suggest that emotional advertisements may wear out more slowly than advertisements that adopt a nonemotional approach. Consistent with these ideas, Hichon and Thorton (1995) find that emotional advertisements wear out more slowly than nonemotional advertisements. Krugman (1962) proposes that repetition might be more effective for advertisements that use soft-sell versus hard-sell techniques. Ray and Sawyer (1971) find that hard-sell advertisements are less likely to gain from repetition than are soft-sell advertisements, and Silk and Vavra (1974) find that repetition enhanced ad and brand recall and brand attitudes more for soft-sell than for hard-sell advertisements. Although not all soft-sell advertisements are affectively based, some are. Moreover, most hard-sell advertisements are decidedly nonaffective in nature. Batra and Ray (1986) find that when consumers are given little opportunity to process information from advertisements, the advertisements wear out less quickly. The authors speculate that one reason for this effect may be that advertisements that limit processing opportunity may be those that are affectively based. The absence of facts and the presence of more affectively based ad elements provide limited opportunity for consumers to elaborate on brand attributes and thus reduce wearout.

1 Conditioning effects appear to be stronger for unfamiliar than familiar unconditioned stimuli (McSweeney and Berley 1984; Stuart, Shimp, and Engle 1987). However, Shimp (1991, p. 179) indicates that any suggestion that conditioning cannot occur for familiar unconditioned stimuli is likely to be erroneous. No study has conclusively demonstrated that conditioning cannot occur for familiar stimuli; only that familiarity may weaken its effects. What is more critical than the familiarity of the unconditioned stimulus is the affective valence of the conditioned stimulus. From a theoretical perspective, it is the strength and affective nature of the stimuli that is responsible for conditioning.

Lack of Efficacy of Other Cues

Heuristic cues. Some researchers recognize that though both affectively based and heuristic cues are useful in affecting persuasion, the two cue types are distinct and act in different ways (Batra and Stephens 1994; Petty and Cacioppo 1986). For example, heuristic cues such as source expertise or source credibility might exert more impact under conditions in which consumers' ability to process information is low and motivation to process information is high, a possibility suggested by Petty and Cacioppo (1986).

Unlike attractive or affectively laden cues, which can be processed immediately and without much interpretation (Batra and Stayman 1990; Batra and Stephens 1994; Newmann and Strack 2000; Zajonc 1980) and thus may influence persuasion when motivation is low, cues such as source expertise or credibility or relevant visuals require interpretation and therefore may be relatively ineffective when motivation is low (Homer and Kable 1990). This logic is consistent with that of MacInnis and Jaworski (1989), who posit that consumers need higher levels of motivation to process heuristic cues, as inferences stimulated by such cues (e.g., a product must be good if it is endorsed by a credible source) require conscious engagement. Consumers cannot evaluate a source as credible or ad elements as relevant without categorizing this cue and engaging in limited processing of its meaning. Consistent with this effect, Yalch and Elmore-Yalch (1984) find that under conditions of high motivation, source expertise is effective at enhancing brand attitudes when consumers are unable to discern the meaning of the message given lack of ability to process quantitative message arguments. Source expertise has no effect on attitudes when the messages are comprehensible (and subjects' ability to process the message was high). Therefore, the use of heuristic cues may be more effective under conditions in which motivation to process information is high but ability is low than in the reverse condition. In contrast, when motivation is low and ability is high (as is the case for frequently purchased brands in mature categories), consumers' prior experiences with brands in the category likely dictate the existence of a previously formed brand schema, with many links to the brand schema already in memory. The existence of such schemas suggests that consumers' images of the quality of the brand are already known and therefore need not be inferred from heuristic cues.

Rational cues. Rational cues are most likely to induce persuasion when consumers have both high motivation and high ability to process information about the brand. Because we anticipate that consumers who frequently purchase brands in mature categories have limited motivation to engage in brand processing, such cues are unlikely to be encoded or processed or to be effective at inducing persuasion and enhancing brand name recall in this context. This suggestion is consistent with classic views of persuasion, in which such rational cues as argument strength are effective only when consumers' motivation and ability to process this information are both high (e.g., Petty and Cacioppo 1986; Petty, Cacioppo, and Schumann 1983).

Summary. Although the ELM is a highly regarded model of persuasion, it does not distinguish between (1) different types of peripheral cues or (2) conditions of high motivation/low ability and low motivation/high ability—situations that may differentially explain consumers likely processing
of new brands in infrequently purchased categories versus mature brands in frequently purchased categories. We propose, however, that two types of peripheral cues can be identified—affective and heuristic. When brands are purchased frequently and product categories are mature, consumers’ motivation to process advertisements is low and their ability to process them is high. Affectionately based executional cues contained in advertisements backed by increased media weight are hypothesized to influence consumer choice by virtue of their effects on persuasion (through mood or classical conditioning processes) and/or memory (through enhanced encoding, mood, or reduced wearout processes). Heuristic and rational cues are likely to respond less well to increased media weight for these frequently purchased brands in mature categories, because these cues require greater motivation to process than is likely in these categories.

Note that increased media weight implies that either (1) the advertisement has been shown more frequently to a group of people or (2) the advertisement has reached a larger group of people. The four theories described previously give different reasons increased media weight may affect success. Wearout and classical conditioning are related to frequency (repetition) explanations. Mood and enhanced encoding likelihood are related more clearly to the reach explanation. We neither test these explanations nor suggest that they exhaust the potential reasons affectively based executional cues “work.” Rather, we propose that theoretical support exists to suggest why affectionately based advertisements backed by media weight should increase aggregate market sales.

THE SAMPLE OF ADVERTISEMENTS

We tested these ideas using a set of real-world television commercials. The commercials were obtained from five major marketers that sold frequently purchased products in mature categories and advertised them nationally. Offerings included soup, frozen entrees, snack chips, frozen breakfast foods, vegetable juice, and long-distance dialing services.

Each marketer provided commercials that had been subjected to ad weight tests by means of one of two established methodologies. The majority used the methodology described by Eastlick and Rao (1989, pp. 58–62). Candidate markets for weight tests are selected on the basis of relevant criteria such as category and brand development and are randomly allocated to test and control cells. Historical data for each market are used to develop a model of sales as a function of time trends, seasonality, promotions, advertising weight, and competitive activity, as appropriate.2 Using the models, monthly forecasts for each market using planned values for each marketing-mix variable were developed with the exception of advertising weight, for which the control level of spending is used (forecasts may be modified on the basis of observed competitive activities or changes from planned brand activities). In the control markets, we expect the actual/forecast sales ratio to be approximately 1. In the test markets, we expect the ratio to be significantly greater than 1, assuming that the increased advertising weight has been effective at generating additional sales. From an analysis of the difference in the ratios, the impact of the added advertising weight is estimated (for examples, see Eastlick and Rao 1989). These experiments last for as much as one year, but most often the test period is six months. This approach controls for expected or systematic variation in sales patterns, such as that caused by promotions or seasonality.

The second methodology used Information Resources Inc.’s BehaviorScan system. This service maintains panels of consumers whose purchases are recorded electronically at checkout. Panels are split into subgroups that are matched on purchases, demographics, and stores shopped in the past year. Each subgroup receives a different advertising treatment (e.g., normal weight and increased weight) by means of a split-cable technology. After a suitable test period, the purchases in the two panels are compared through appropriate statistical methods for an estimation of the impact of the test manipulation. Details of the BehaviorScan system are given by Lodish and colleagues (1995, pp. 138–39).

For our commercials, the additional weight tested was from 50% to 100% higher than for the control. The advertiser designated an advertisement as either WSP or WSN on the basis of the results of the test. A WSP (WSN) commercial was one for which increased media weight was (was not) associated with a statistically significant increase in sales in the test market compared with the control. The set comprised 47 commercials, coded as WSP (1; N = 25) or WSN (0; N = 22). Our data set does not include sales levels but only the dichotomous classification scheme (WSP, WSN) provided by cooperating advertisers.

Because test and control market sales data are conducted simultaneously, the use of matched markets makes it unlikely that economic, competitive, consumer, or historical conditions can explain sales results. Assuming an average cost of $500,000 per field experiment, the total costs of data collection for the independent variable approximate $23,500,000.

STUDY I: METHODOLOGY

Advertising Executional Cues

Identification of executional cues. We identified executional cues that fit the affectionately based, rational, and heuristic appeal types. The executional cues we included were applicable to the television medium and were those we considered objectively verifiable. The executional cues are intended to be broadly representative rather than exhaustive of the potential set of affectively based, heuristic, and rational cues.

Within the category of affectionately based cues, we included cues that tapped the extent to which the advertisement (1) used a warm appeal, (2) used an emotionally based drama versus lecture format, (3) contained pleasant pictures, (4) contained likable music, and (5) contained likable sources. Because advertisements that contained affectionately based executional cues tended to be longer, we also included commercial length as a control variable.

Heuristic cues include the use of (1) credible sources, (2) trustworthy sources, (3) similar sources, (4) knowledgeable sources, (5) pictures to convey information about the brand, and (6) music to convey information about the brand. Although it is possible that source credibility and trustworthiness are more cognitive in nature and thus reflect central...
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and fewer rational cues than WSN advertisements. They were also longer. Notice the nonoverlapping intervals for all these variables, which provide preliminary empirical support for our hypotheses.

To correctly assess our basic hypothesis, we first modeled the probability that an advertisement would be WSP or WSN as a function of the affectively based, heuristic, and rational constructs, using a logit formulation. Length is also included as a control variable, as it serves as an alternative explanation why advertisements with added media weight might be more successful.

The results of this model are presented in Table 2. Longer commercials were positively associated with WSP status (b = .10, p < .05); however, affectively based cues still predicted WSP status (b = 1.92, p < .05) even after length was controlled for. Consistent with expectations, the use of neither heuristic appeals (b = −1.85, p = .14) nor rational appeals (b = .05, p = .94) was associated with added sales in response to increased media weight. The four variables in Table 2 were able to correctly classify 86% of the commercials in terms of their WSP versus WSN status—a figure significantly greater than chance.

To capture the relative impact of each independent variable on WSP, we calculated elasticities for each variable at the mean of all data for that variable. The elasticities reported in Table 2 are the means of a positive and negative 1% change. The elasticities reveal that a 1% increase in affectively based cues is associated with a 2.88% increase in the likelihood of success, whereas a 1% increase in length is associated with a 1.49% increase in the likelihood of success.

The results are consistent with the idea that for frequently purchased, established brands in mature categories, advertisements most likely to show sales effects with added weight are those that contain more affectively based executional cues. Our study suggests that when product categories are mature and brands are familiar, added media weight behind advertisements that use heuristic or rational cues is not associated with increases in sales.

**STUDY 2: THEORY AND HYPOTHESES**

Study 1 indicated that advertisements containing affectively based executional cues are related to WSP status. The theoretical rationale for this was that these cues would evoke positive feelings in viewers. We believed that advertisements that created positive feelings would be more likely to be encoded and remembered, create positive moods, and induce classical conditioning—based liking and/or wearout more slowly. Because what advertisements portray (e.g., affective cues) need not translate into what consumers feel (Stout, Homer, and Liu 1990), however, we needed to determine that such advertisements also evoked feeling responses in consumers. For example, an advertisement could contain executional cues designed to be affectively positive (e.g.,
likable sources) but fail to evoke positive feelings in viewers. Therefore, the interpretation underlying the results of Study 1 would be more compelling if we were to demonstrate that such advertisements are also associated with greater positive and weaker negative feelings and that feelings are also related to WSP status. Study 2 therefore uses feelings as a process variable to show that advertisements that responded to increased media weight contained more affectively based executional cues and evoked more pleasant affective responses in viewers.

**STUDY 2: METHOD**

All advertisers that had participated in the market experiments provided profiles of the targeted consumers for their advertisements. Target consumers were generally similar across the advertisements tested. Advertisements were not geared to a specific income demographic and were skewed to consumers between 20 and 45 years of age. A sample of 1344 consumers from two states was recruited through local advertising and solicitation of cooperation from local groups. Consumers were between the ages of 20 and 45 and were broadly representative of the target population for the advertisements. Individual consumers were paid $5.00 for their participation. Local groups received a donation of $5.00 for each consumer who participated.

Target consumers were assigned to view either a WSP or WSN commercial. Respondents were told nothing about the sales impact of these commercials. The target commercials, selected at random, were embedded within a set of three additional commercials to simulate a more normal viewing context. Respondents were told to watch the advertisements as they would at home. The study was described as one that focused on consumers’ responses to advertising. Each respondent evaluated the target commercial immediately after it was shown, using a battery of items designed to tap positive and negative feelings, ad attitudes, brand attitudes, and several control variables. In many ways, our approach mirrors an advertising copy-testing situation in which ad reactions are gathered and viewed as diagnostic of commercial success. Given the use of actual consumers and a real-world copy-testing situation, we were limited in the amount of data we could collect from each respondent. Moreover, resource constraints enabled data collection for only 36 of the 47 advertisements. The advertisements included 18 WSP advertisements and 18 WSN advertisements.

**Viewer Responses**

**Positive feelings.** In empirical work, Edell and Burke (1987) find three factors that characterize consumers’ emotional responses to advertisements—upbeat feelings, warm feelings, and negative feelings. Consistent with Edell and Burke, we included items indicating the upbeat emotions factor—namely, the extent to which the commercial made consumers feel happy and the extent to which it was fun. We also asked consumers the extent to which the commercial made them feel warmhearted. The three items loaded on a common scale, and the scale appeared to be internally consistent (alpha = .76). Other work on emotions has indicated that feelings can be characterized by their position in two- or three-dimensional space, characterized by pleasure and arousal (and sometimes domination) (Holbrook and Batra 1987). Our positive feelings construct includes both high-arousal (happy, fun) and low-arousal (warmhearted) positive feelings.

**Negative feelings.** Edell and Burke’s (1987) negative feelings scale included such emotions as disgusted, offended, sad, angry, irritated, skeptical, and bored. Some of these indicators are represented in the constructs described subsequently (e.g., boredom is a natural response to lack of interest; skepticism is a response to lack of credibility). We were interested in negative feeling states that were not indicated by the other concepts we examine. Because most of the advertisements were not geared toward the evocation of sad feelings or the elicitation of depressing thoughts, sadness and depression were omitted given lack of variance. Instead, we included three items—disgust, irritation, and offense, all measured on seven-point agreement scales (alpha = .80).

**Ad and brand attitudes.** Because the quality of the advertisement may affect sales response, consumers used seven-point agreement scales to indicate the extent to which they believed the commercial was good, likable, and effective (alpha = .90). Likewise, because sales may be a function of brand attitudes, consumers were also asked to rate on a seven-point agreement scale the extent to which they felt good about the brand advertised in the commercial, the extent to which they liked the product, and the extent to which they believed the brand was a good one (alpha = .95).

**Interest.** To control for interest, respondents used a seven-point agreement scale (alpha = .92) to indicate the extent to which they viewed the advertisement as interesting and entertaining and the extent to which it made them feel bored, uninterested, stimulated, and interested.

**Relevance.** Consumers used seven-point agreement scales to evaluate the extent to which the commercial was “important to me,” “relevant to me,” and “useful to me” (alpha = .93).

**Comprehension.** A set of seven-point agreement scaled items was designed to indicate comprehension. Specifically, consumers indicated the extent to which the advertisement was confusing and hard to follow and the extent to which it made them feel baffled and puzzled (alpha = .86). Note that we examine perceptions of the advertisement’s comprehensibility, not whether the meanings respondents take from the advertisement are accurate.

**Credibility.** The sales impact of advertisements could relate to the advertisements’ credibility. To control for credibility, consumers used a set of seven-point agreement scaled items to indicate the extent to which the commercial was phony, unrealistic, and believable and the extent to which the commercial made exaggerated claims and made them feel unbelievable, skeptical, and doubtful. These indicators show high internal consistency (alpha = .88) and appear to be representative of the class of indicators just described.

**Empathy.** Empathy reflects the extent to which viewers feel what the characters in the advertisement feel (Bagazio and Moore 1994). Consumers rated the extent to which they believed they could relate to the characters in the advertisement, felt that they were right there in the advertisement and/or could put themselves in the advertisement, and were experiencing the same thoughts and feelings as the characters in the advertisement or could understand the characters’ thoughts and feelings (alpha = .80).
STUDY 2 RESULTS AND DISCUSSION

Effects of Feelings on WSP Status

Table 3 shows the correlations of positive and negative feelings with sales and each of the control variables. As shown, positive feelings were significantly related to all the control variables—in particular, ad and brand attitudes, interest, and empathy. Similarly, negative feelings were significantly related to all the control variables—in particular, credibility, interest, ad and brand attitudes, and comprehension. The WSP status was also significantly related to empathy, credibility, and ad and brand attitudes. These correlations suggest that positive feelings could affect sales through the mediational influence of interest, empathy, and ad and brand attitudes, whereas negative feelings could affect sales through the mediational influence of comprehension, credibility, and ad and brand attitudes. Alternatively, given the correlational nature of the study, these factors may reflect confounds that obscure the relationship between positive and negative feelings and WSP status.

In contrast to Study 1, which was performed at the level of the advertisement, the analyses in this section are performed at the level of the viewer. The main reason for adopting this approach is that it is consistent with the way the data were collected: Viewers were exposed to either WSP or WSN advertisements, much as would be the case in a field experiment. Figure 2 shows the confidence intervals around the means for each variable, for WSN and WSP advertisements. Note the nonoverlapping intervals for positive feelings and for negative feelings in the WSP and WSN conditions, which provide preliminary empirical support for our theoretical arguments. More formally, Table 4 presents a multivariate analysis of variance (MANOVA) for these data, which supports our hypotheses.

To test the idea that the intensity of positive and negative feelings is related to WSP, we estimated a logit model using positive feelings and negative feelings as explanatory variables and the dichotomous ad success variable (WSP versus WSN) as the dependent variable. Using the viewer as the unit of analysis here raises potential specification problems in our statistical tests, because there are several viewers for each advertisement. To account for this, we estimated a logit model using maximum likelihood techniques and an Eicker–White method (White 1982) for calculating standard errors that are robust to misspecification of the error terms. As shown in Table 5, Column 1, and consistent with hypotheses, advertisements that evoked positive feelings ($b = 0.10, p < 0.02$) and did not evoke negative feelings ($b = 0.25, p < 0.001$) were more likely to be WSP. These two variables alone correctly classified 61.3% of the advertisements. A logit model that examines the effects of feelings after the other viewer responses are controlled for provides a more conservative test of this effect. As shown in Table 5, Column 2, feelings of pleasantness continued to be significant ($b = 0.43, p < 0.001$), as did feelings of unpleasantness ($b = 0.21, p < 0.002$), even after the significant effects of interest, ad relevance, comprehensibility, ad credibility, and empathy were controlled for. This model correctly classified 78.1% of the advertisements into the WSN versus WSP categories. These conclusions remained unchanged even when ad attitudes and brand attitudes were included in the model (see Table 5, Column 3). Therefore, support for our hypotheses is strong.

Interpretation of the impact of control variables is difficult, because the study was developed to assess support for the proposed hypotheses, not to develop and test theory about the control variables. However, the signs of several control variables in Table 5 deserve brief comment. The negative coefficients for interest and relevance support a line of research on consumer information processing that suggests that advertisements designed to create interest (e.g., humor, music, rhetorical questions) and enhance the relevance of the advertisement to the consumer may distract attention from the brand and thus be associated with reduced advertising effectiveness (e.g., Gelb and Zinkhan 1985; Maclnnis and Park 1991; Petty, Cacioppo, and Heesacker 1981). This is particularly true when interest-generating factors are unrelated to the brand or the central message. The negative sign for comprehension may lie in the use of rational as opposed to emotional appeals in the advertisements rated as most comprehensible; therefore, they evoked more rational than emotional responses in viewers. Notably, none of these variables was significant in the MANOVA reported in Table 4.

For each column in Table 5, we also present the elasticities for each independent variable. The elasticities reveal that a 1% increase in positively based viewer responses is associated with a .86% increase in the likelihood of success, whereas a 1% increase in negatively based viewer responses is associated with a .20% decrease in the likelihood of success.

Linking Studies 1 and 2

Although the conceptual linkages between our two studies have been shown, we also found evidence for their empirical linkage by determining whether the classification of advertisements by the logit models in the two studies was consistent. We found that 78% of the advertisements were classified similarly in both models, in support of our claim that the two studies tap into the same phenomenon using different approaches. Figure 3 presents the values of the Study 2 predictor variables for advertisements classified as successes or failures by the Study 1 logit. Figure 3 parallels Figure 2 except that the advertisements are classified by Study 1 rather than a priori. Here, advertisements that responded to weight evoked not only more positive feelings but also less negative feelings in viewers. Thus, we have substantial empirical support for the link between the two studies.

4 It is interesting that brand attitudes were insignificant in the prediction of ad success. These findings might be due to several factors: (1) Consistent with the ELM, attitudes may not predict behavior conditions in which consumers' motivation to process information about a brand is low, (2) memory processes drive sales results, (3) our attitude measure assesses attitudes toward brands as opposed to attitudes toward buying brands (the latter should be more diagnostic of behavior; Fishbein and Ajzen 1975), (4) our attitude measure may be too cognitive and utilitarian to tap the affective sources of attitude (Batra and Ahola 1991), and (5) attitude toward the brand at exposure is not the same as attitude prior to choice. In addition, it is possible that brand attitudes mediate the effect of variables such as interest, empathy, and affective responses, rendering the effect of the brand attitude mediator insignificant.
<table>
<thead>
<tr>
<th></th>
<th>Positive Feelings</th>
<th>Ad Attitude</th>
<th>Brand Attitude</th>
<th>Relevance</th>
<th>Interest</th>
<th>Comprehension</th>
<th>Credibility</th>
<th>Equity</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Feelings</td>
<td>1.00***</td>
<td>-0.48***</td>
<td>-0.53***</td>
<td>-0.41***</td>
<td>-0.73***</td>
<td>-0.50***</td>
<td>-1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Ad Attitude</td>
<td>0.00</td>
<td>0.70***</td>
<td>-0.23***</td>
<td>-0.32***</td>
<td>-0.69***</td>
<td>-0.56***</td>
<td>-1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Brand Attitude</td>
<td></td>
<td></td>
<td>0.58***</td>
<td>0.69***</td>
<td>0.82***</td>
<td>0.64***</td>
<td>-1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Relevance</td>
<td></td>
<td></td>
<td></td>
<td>0.59***</td>
<td>0.82***</td>
<td>0.64***</td>
<td>-1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.79***</td>
<td>0.64***</td>
<td>-1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Comprehension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.73***</td>
<td>-1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Credibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.04</td>
<td>-0.02</td>
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<td></td>
<td></td>
<td></td>
<td>0.04</td>
</tr>
</tbody>
</table>

**p < 0.05, ***p < 0.01, ****p < 0.001**

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GENERAL DISCUSSION

Ours is one of an emerging yet still relatively small set of studies that tries to bridge the gap between research typically conducted using sales data and real-world advertisements and research on consumer information processing (e.g., Batra et al. 1995; Chandy et al. 2001; Haley and Baldinger 1991). To develop the ideas for this research, we used prior work on consumer information processing to develop novel hypotheses about when added media weight may help on the basis of the executional cues the advertisement contains. This study is the first to suggest that the effectiveness of added media weight depends both on market conditions (i.e., motivation and ability to process advertisements) and ad creative content. As such, we have identified a potentially important effect that could temper previous conclusions regarding the efficacy of added media weight for established brands selling frequently purchased goods in mature categories (Eastlack and Rao 1989; Lodish et al. 1995; see also Vakratsas and Ambler 1999).

Finally, we found confirmation of the importance of affective cues in influencing sales in mature markets where products are purchased frequently, as well as evidence that these cues may work by affecting consumers’ feeling responses. We make a distinction between heuristic and affect-based peripheral cues and suggest that certain types of peripheral cues may be more effective in some contexts than others are.

Table 4
VIEWER RESPONSES ASSOCIATED WITH WSN AND WSP COMMERCIALS (RESULTS FROM MANOVA)

<table>
<thead>
<tr>
<th></th>
<th>WSN Mean</th>
<th>WSP Mean</th>
<th>F</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>Positive feelings</td>
<td>4.08</td>
<td>4.51</td>
<td>28.06</td>
<td>.001</td>
</tr>
<tr>
<td>Negative feelings</td>
<td>2.23</td>
<td>1.75</td>
<td>47.88</td>
<td>.001</td>
</tr>
<tr>
<td>Empathy</td>
<td>3.66</td>
<td>4.40</td>
<td>85.95</td>
<td>.001</td>
</tr>
<tr>
<td>Ad attitude</td>
<td>4.42</td>
<td>4.65</td>
<td>6.40</td>
<td>.01</td>
</tr>
<tr>
<td>Brand attitude</td>
<td>4.09</td>
<td>4.27</td>
<td>3.58</td>
<td>.06</td>
</tr>
<tr>
<td>Credibility</td>
<td>3.98</td>
<td>5.01</td>
<td>17.81</td>
<td>.001</td>
</tr>
<tr>
<td>Relevance</td>
<td>3.84</td>
<td>3.88</td>
<td>21.65</td>
<td></td>
</tr>
<tr>
<td>Comprehension</td>
<td>4.52</td>
<td>4.63</td>
<td>2.81</td>
<td>.09</td>
</tr>
<tr>
<td>Interest</td>
<td>4.62</td>
<td>4.55</td>
<td>.73</td>
<td>.30</td>
</tr>
</tbody>
</table>

Table 5
LOGIT MODEL OF AD SUCCESS AS A FUNCTION OF VIEWER RESPONSES

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Coefficients</th>
<th>Significance</th>
<th>Elasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.15</td>
<td>0.73 (0.47)</td>
<td>0.22</td>
</tr>
<tr>
<td>Positive feelings</td>
<td>-0.10</td>
<td>-5.02 (&lt;0.001)</td>
<td>-26</td>
</tr>
<tr>
<td>Negative feelings</td>
<td>-0.25</td>
<td>-5.02 (&lt;0.001)</td>
<td>-26</td>
</tr>
<tr>
<td>Interest</td>
<td>-0.86</td>
<td>9.58 (&lt;0.001)</td>
<td>1.86</td>
</tr>
<tr>
<td>Relevance</td>
<td>-0.16</td>
<td>-3.11 (&lt;0.001)</td>
<td>-31</td>
</tr>
<tr>
<td>Credibility</td>
<td>-0.24</td>
<td>3.48 (&lt;0.001)</td>
<td>0.51</td>
</tr>
<tr>
<td>Empathy</td>
<td>-0.55</td>
<td>8.84 (&lt;0.001)</td>
<td>1.17</td>
</tr>
<tr>
<td>Ad attitude</td>
<td>-0.39</td>
<td>5.68 (&lt;0.001)</td>
<td>0.73</td>
</tr>
<tr>
<td>Brand attitude</td>
<td>-0.01</td>
<td>61.3%</td>
<td></td>
</tr>
<tr>
<td>Hit rate</td>
<td></td>
<td>d.f. = 2, 52.62 (&lt;0.001)</td>
<td>78.1%</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Column 2</th>
<th>Coefficients</th>
<th>Significance</th>
<th>Elasticity</th>
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</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.29</td>
<td>54 (&lt;0.59)</td>
<td>0.86</td>
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<tr>
<td>Positive feelings</td>
<td>0.43</td>
<td>2.94 (&lt;0.001)</td>
<td>-20</td>
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<tr>
<td>Negative feelings</td>
<td>-0.21</td>
<td>-5.02 (&lt;0.001)</td>
<td>-26</td>
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<tr>
<td>Interest</td>
<td>-0.86</td>
<td>9.58 (&lt;0.001)</td>
<td>1.86</td>
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<tr>
<td>Relevance</td>
<td>-0.16</td>
<td>-3.11 (&lt;0.001)</td>
<td>-31</td>
</tr>
<tr>
<td>Credibility</td>
<td>-0.24</td>
<td>3.48 (&lt;0.001)</td>
<td>0.51</td>
</tr>
<tr>
<td>Empathy</td>
<td>-0.55</td>
<td>8.84 (&lt;0.001)</td>
<td>1.17</td>
</tr>
<tr>
<td>Ad attitude</td>
<td>-0.39</td>
<td>5.68 (&lt;0.001)</td>
<td>0.73</td>
</tr>
<tr>
<td>Brand attitude</td>
<td>-0.01</td>
<td>61.3%</td>
<td></td>
</tr>
<tr>
<td>Hit rate</td>
<td></td>
<td>d.f. = 7, 342.99 (&lt;0.001)</td>
<td>78.1%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Column 3</th>
<th>Coefficients</th>
<th>Significance</th>
<th>Elasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.29</td>
<td>56 (&lt;0.58)</td>
<td>0.86</td>
</tr>
<tr>
<td>Positive feelings</td>
<td>0.42</td>
<td>5.05 (&lt;0.001)</td>
<td>-20</td>
</tr>
<tr>
<td>Negative feelings</td>
<td>-0.22</td>
<td>-2.91 (&lt;0.004)</td>
<td>-20</td>
</tr>
<tr>
<td>Interest</td>
<td>-0.87</td>
<td>8.86 (&lt;0.001)</td>
<td>1.86</td>
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<tr>
<td>Relevance</td>
<td>-0.17</td>
<td>2.83 (&lt;0.005)</td>
<td>-31</td>
</tr>
<tr>
<td>Credibility</td>
<td>-0.24</td>
<td>3.46 (&lt;0.001)</td>
<td>0.52</td>
</tr>
<tr>
<td>Empathy</td>
<td>-0.55</td>
<td>8.81 (&lt;0.001)</td>
<td>1.17</td>
</tr>
<tr>
<td>Ad attitude</td>
<td>-0.38</td>
<td>5.61 (&lt;0.001)</td>
<td>0.73</td>
</tr>
<tr>
<td>Brand attitude</td>
<td>-0.03</td>
<td>61.3%</td>
<td></td>
</tr>
<tr>
<td>Hit rate</td>
<td></td>
<td>d.f. = 9, 342.99 (&lt;0.001)</td>
<td>78.1%</td>
</tr>
</tbody>
</table>

<Significance is measured by the t-statistic; p-values are in parentheses.

Figure 2
MEANS AND 95% CONFIDENCE INTERVALS FOR ADVERTISEMENTS CLASSIFIED INTO WSP AND WSN
Advertisements are bundles of executional cues, and it is entirely possible that advertisements that contained affective cues also contained other cues. Indeed, the correlations in Table 1 suggest this possibility. Therefore, it should not be concluded from this study that affectively based advertisements are devoid of other types of cues. What our results suggest is that advertisements that contained affectively based cues predicted WSP even after these other cue types were controlled for.

Our empirical focus is the characteristics of advertisements that do versus do not respond to increased media weight. Therefore, we can make conclusions only regarding that comparison. We did not compare the relative efficacy of advertisements with affectively based as opposed to heuristic or rational cues for advertisements that did not contain added weight. Therefore, we cannot conclude that affectively based advertisements should be used with all frequently purchased brands in mature categories. That conclusion could only be reached through a different study. However, our findings are similar to those of Haley and Baldinger (1991). Using a small set of advertisements for frequently purchased packaged goods products, they find that advertisements that are likable (and thus potentially affectively valenced) tend to produce higher sales in splitable sales tests than a comparable control advertisement. Although it is therefore possible that the effects we observed here extend to conditions in which less weight is used as well, this conclusion awaits further testing.

Our results appear at odds with Stewart and Furse’s (1986) study of 1000 commercials. They observed that advertisements that contained rational cues such as brand-differentiating attributes tended to be most effective. Several factors might explain the differences in our results. First, Stewart and Furse’s study included a broad sample of advertisements from frequently purchased and non-frequently purchased categories, as well as new versus mature markets. Such aggregation would lead to different results. Second, Stewart and Furse examined different dependent variables. We examine sales, whereas their results focused on recall, comprehension, and persuasion. Third, their analyses studied correlations among various executional cues and ad success. Controls for other variables were not included. Fourth, their study was completed nearly 20 years ago. It is certainly possible that consumers’ reactions to advertisements is historically, situationally, and culturally bounded and may not generalize across time.

Limitations
Our study is an attempt to bridge a gap between real-world studies of media weight and consumer information-processing theory, but our database imposes several limitations on the generality of our findings. First, the advertisements in our study are all for well-established, frequently purchased brands in mature categories. Therefore, the findings should not be extrapolated to small brands, new brands, or brands in rapidly growing categories. These brands may respond better to information-rich advertisements with a product focus. According to Lodish and colleagues (1995), these brands tend to be more responsive to advertising weight than are the well-established brands in our database.

Second, although the cost of gathering the data for WSP versus WSN advertisements exceeds $23 million, our conclusions are still based on a relatively small sample of advertisements, and our small sample size did not permit a holdout sample of advertisements for verification purposes. This small sample size also provided few degrees of freedom to examine a large sample of executional cues. Nor did Study 2 exhaust the possible set of viewer responses that might be examined. However, Study 2 taps several information-processing concepts deemed relevant to consumers’ processing of advertisements. Additional study using different methodological tools (e.g., recall, cognitive responses) would be useful to make our results more usable for advertising copy testing.

Third, by our use of real-world advertisements tested in actual markets, our studies sample on the dependent variable—WSP status. By the use of real-world advertisements, it is possible that confounding factors beyond those controlled here account for some of the results we observed.

Fourth, because of the lack of information about the percent change in ad weight used in the experiments, we have not been able to control for this factor. Nor have we been able to control for the position of the base level of spending on the underlying advertising response function. For example, if the base-level spending is already at saturation, a 50% or 100% increase in spending is unlikely to increase sales.
Similarly, if the base-level spending is at a more responsive part of the response function, increases in spending are likely to result in sales increases, regardless of ad content. If these factors are systematically related to WSN and WSP conditions, our results may be brought into question. Another caveat is that Study 2 did not mirror a natural exposure context, as consumers were recruited for a study of advertising and advertisements were not embedded in actual programs. It is notable, though, that using two different methodologies (field-based sales data and forced exposure contexts), we were still able to find significant effects.

From a measurement standpoint, coders did not code advertisements in random order. However, we have no evidence for learning or fatigue effects, as the intercoder reliabilities of the advertisements did not change across advertisements. Moreover, the pattern of intercoder reliabilities for the first sample of coders was similar to the intercoder reliabilities obtained from the second sample of coders, suggesting no systematic effects across coders rating different advertisements.

Finally, the findings here are not causal but purely correlational. However, that we have three separate data sources and (in Study 1) a limited sample size makes it likely that we will observe no effects. Therefore, any findings we do have are more likely to be genuine, not the result of spurious correlation.

Managerial Implications

Well-known frequently purchased brands in mature categories often have few rational bases on which to differentiate them from other products in the category. When they are differentiated, consumer knowledge is usually high and purchase risk is low. Consequently, consumer choice behavior is typically of the low-involvement type. Our results suggest that affectively based tactics may be more effective for these brands in this context than is advertising that tries to induce purchase using rational arguments and information that may be familiar to most customers. Warm and likable advertisements may be more likely to succeed than product-based advertisements.

Future Research Issues

Further research should address the extent to which each of the four processes identified here—greater encoding likeliness and memory, mood, classical conditioning, and slower wearout (and potentially others)—indeed serve as mechanisms by which affectively based exceptional cues and positive feelings affect WSP status. If added media weight influences aggregate sales responses, it can do so by one of two processes: increasing reach or increasing frequency. For established and frequently purchased brands in mature categories, it is possible that the general, pervasive nature of the brand implies that brand exposures have reached many in the target population. The most likely impact of added media weight, then, is to increase frequency. As such, theories such as classical conditioning and slower wearout—those that specifically relate to frequency—may best explain the results observed here.

The positive impact of credibility on WSP is notable and suggests additional research on the impact of credibility on ad success. Advertisements can be credible in terms of providing believable facts or showing actors whose feelings and emotional reactions have verisimilitude (Aaker and Stayman 1989). We surmise that the impact of credibility on WSP is due to the latter as opposed to the former. More important, feelings were significantly related to WSP even after we controlled for this effect. However, the nature of credibility and its impact on WSP status deserves further research.

Does the lack of efficacy of heuristic cues and rational cues mean that such cues are ineffective in their impact on WSP versus WSP status? Though relatively ineffective for frequently purchased brands in mature categories, heuristic cues might be most effective when motivation to process information is high but ability is low, as might be the case when markets and brands are new and consumers are novices. Rational cues might be more effective when markets are reaching maturity and brands are infrequently purchased, as might be the case with durable products. In these markets, consumers’ motivation to process information is likely high given the high-risk nature of the product, yet their ability is also moderately high given their previous experiences with purchases in these mature categories. High motivation coupled with high ability may make them amenable to and persuaded by processing rational and factually based advertisements. An important direction for further research, then, is to identify the market conditions that characterize various motivation and ability levels of consumers and to assess whether the efficacy of advertising in these contexts is contingent on the executional cue content of the advertisement and the responses it evokes in viewers.

REFERENCES


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