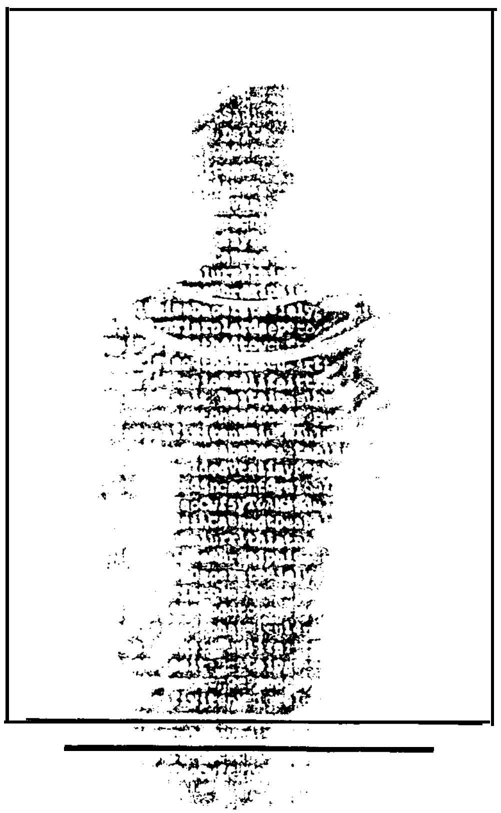
Measuring Advertising Effectiveness



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Developing Copy Tests That Estimate Brand Usage

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The growing interest in brand equity is resulting in new advertising objectives for some brands of consumer packaged goods. Some campaigns emphasize using the brand instead of simply *choosing* it over a competing brand. That is, many versatile, high-penetration packaged brands are well-suited for advertising campaigns that encourage loyal consumers to use the brand more frequently or in new ways (Wansink, 1994; Wansink & Ray, 1993, 1996). This chapter describes the copy testing measures that most accurately predict whether a campaign will generate increased usage. Such usage-related campaigns are most commonly employed by mature, dominant brands (such as Campbell's Soup), high-loyalty niche brands (such as Grey Poupon), and industry associations (such as the American Dairy Council).

Both industry professionals and academicians have criticized traditional copy testing methods for their inability to capture usage-related responses accurately (Marketing Science Institute, 1983). Measures of purchase intention and brand attitude, for Instance, are no longer satisfactory when our interest is in usage. These measures are too insensitive when consumers are brand loyal. Brand attitude measures are often at a ceiling. Furthermore, estimates of purchase intentions become unreliable when the product is already in inventory and must be depleted before it can be repurchased. Indeed, recent studies have shown that the correlations between measures of brand attitude and subsequent usage range only from –. 10 to .23 for heavy users (Wansink & Ray, 1992).

This chapter describes research that examines the validity of different types of usage-related measures that can be reasonably collected in a copy-testing environment. From a managerial standpoint, we suggest measures that would determine which of two campaigns (such as an "Mmm Mmm Good" campaign or a "Soup is Good Food" campaign for Campbell's Soup) would be more effective at increasing usage. In particular, this chapter makes three specific

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1997 Mahwah, New Jersey

contributions. First, it provides a basic framework for understanding the sequential effects of advertising on usage-related responses. Second, it suggests valid quantitative measures that estimate an ad's impact on usage. Last, it suggests cognitive response elicitation questions that are most sensitive to usage.

After outlining a basic framework for usage-related responses, the results of two copy testing studies are described. The first study shows the quantitative measures that correlated most highly with usage. The second study shows a method that maximizes the sensitivity of cognitive responses toward usage-related thoughts.

HOW ADVERTISING IMPACTS USAGE

An ad can be processed in either a peripheral way or a central way, depending on how much attention a consumer allocates to the ad (Petty, Cacioppo, & Schumann, 1983). Suppose a person spends little time thinking about an ad he or she has just seen. Even if exposure to this ad has no influence on consumer attitudes toward the brand (A_{brand}), the ad may still have an impact on consumption or usage if it simply raises his or her awareness of the brand (Ehrenberg, 1974), thereby increasing the chance that it might be considered for usage (Nedungadi, 1991). Consistent with this, a field study conducted by Seagrams suggested that changes in attitude need not precede changes in the usage frequency of a product. This study analyzed aggregated data from brand loyal consumers (Schiller, Schribner, & Belkin, 1982), showing that consumers who were frequently exposed to Seagrams ads also consumed more of their products. This increase in usage occurred "in the absence of any related increase in product beliefs or in attitude" (see Fig. 20.1). Although this study does not prove causality, its results are consistent with the notion that changes in usage may occur without accompanying changes in attitude.

The more frequently studied route to persuasion is the central route. It suggests that when a consumer views an ad and is highly involved with it, he or she silently generates thoughts about the brand, and these thoughts either alter or fortify beliefs and attitudes about the brand and its use. In turn, these beliefs and attitudes influence usage intentions that eventually influence usage. This perspective is consistent with learning theory and what we would expect when consumers process informational ads (Rossiter & Percy, 1987). Copy testing measures that examine centrally processed measures are the focus of this chapter. The low-involvement processing conditions that exist with peripherally processed messages are not further examined here.

Figure 20.1 shows the points at which we could sample the ad's impact. As researchers, our interest is in determining the measures that suggest future usage, thus eliminating the time and expense of having to collect actual usage measures. It is important to realize that two broad types of measures of ad

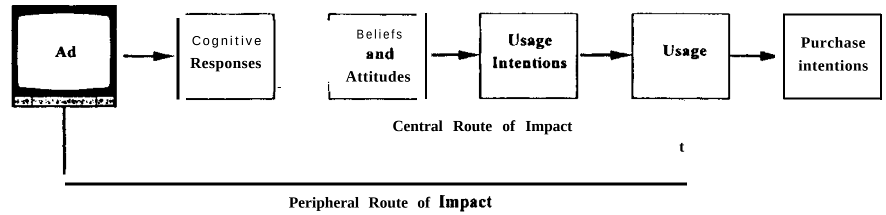

FIG. 20.1. How advertising impacts usage,

effectiveness can be taken in the laboratory without having to take actual usage measures in the field: (a) cognitive responses, and (b) quantitative measures of usage intentions. Both of these can be collected quickly and inexpensively, and can serve complementary purposes.

Determining the Quantitative Measures That Predict Usage

Measures of one's usage intentions (for a particular time period, such as "within the next 2 weeks") can be obtained either through likelihood measures, or through estimates of one's usage volume. Likelihood measures can be directly obtained by asking an individual how likely it will be that he or she uses the brand within an upcoming period. Answers are given on a 7-point scale ranging from 1 (*highly unlikely*) to 7 (*highly likely*). Usage intentions can also be measured by asking one to estimate the volume of a brand he or she might possibly consume within a similar time period.

These two different measures of usage intent have different relative strengths. With infrequent users of a brand, volume estimates will be skewed toward O units (especially over a relatively short period of time). This is partially a drawback of numerical estimates that provide no gradation between O and 1 unit. In such cases, volume estimates would provide less variance and less information than an estimate of usage likelihood. As a result, usage likelihood estimates would allow a greater gradation in response and would be more sensitive in detecting any potentially different effects these ads might have on usage.

In contrast, with frequent or heavy users of a brand, a volume estimate is likely to be more accurate than a likelihood estimate. This is because the distribution of these volume estimates is more likely to be normal (Pearl, 1981). As a result, a volume estimate of one's usage intent is likely to provide more variance and more information about the intended usage of heavy users than is a likelihood measure, which would undoubtedly be at or near **100%** probable. Under these circumstances, volume estimates would be a more accurate estimate of a heavy user's usage volume of a

Empirical Findings

The effectiveness of these different measures was examined by Wansink and Ray (1992) when they exposed 239 subjects from parent–teacher associations to a series of ads for one of three different brands (Campbell's Soup, Jell-O Brand Gelatin, and Ocean Spray Cranberry Sauce). The correspondence between intentions and usage was most impressive when the subjects were segmented into heavy users and light users based on their prior year's usage of the brand. Consumers who consumed more than the median amount for each brand were classified as relatively heavy users, and the rest as light users (Jacoby & Chestnut, 1978).

In general, both measures of usage intention (likelihood and volume estimates) were effective in predicting subsequent usage, depending on how frequently one has tended to consume the brand in the past. As shown in Table 20.1, heavy users of the brands were more accurate in estimating their usage volume than in estimating their likelihood of using these three products (r = .62,.46, and .23, respectively). In contrast, light users of the brands were unable to accurately estimate their usage volume but were instead much more accurate in estimating the usage likelihood (r = .42, .78, and .49, respectively). When contrasted with research that indicates that usage volume predictions are often very low (Cassidy, 1981; Pilgrim, 1957), the results from Table 20.1 show that volume predictions can be very accurate when frequent users are examined.

Implications for Increasing Predictive Validity

These results illustrate two key concepts. First, brand attitude measures will not always be sensitive enough to dectect usage -related responses from ads. Second, usage intentions can be measured through likelihood estimates or through volume estimates, and each measure is effective under different circumstances. As seen in Table 20.1, heavy users of a given brand are most accurate when predicting their future usage volume. Light users are most accurate when predicting their likelihood of consuming the brand.

These results can be extended to entire product categories. That is, if a researcher is trying to estimate the impact that an ad will have on the usage of a product category that is infrequently consumed (relative to other categories) likelihood measures may be more generally accurate than volume measures, However, if the product category is one that is frequently consumed (relative to other categories) volume measures may be more accurate. In this study, for example, the typical household ate 29.1 cans of soup per year, but only 2.7 cans of cranberry sauce. Given a larger sample of subjects, we would likely find that soup is a product category where usage intentions are best estimated through volume measures, whereas usage intentions for cranberry sauce would be best estimated through likelihood measures (see Fig. 20.2). This relationship should be even stronger when examining the heavy users of a frequently consumed

TABLE 20.1
Correlations Between Usage Intention Measures and Actual Usage

	Light Users			Heavy Users		
	$\bar{X}$[a]	Likelihood of Usage[b]	Volume of Usage[c]	$\bar{X}$	Likelihood of Usage	Volume of Usage
Campbell's Soup	.9 cans	.42*	.15	4.2 cans	.19	.62**
Jell-O Brand Gelatin	.3 boxes	.78"*	.58"	1.3 boxes	.23	.46*
Ocean Spray Cranberry Sauce	.1 cans	.49"	.22	.4 cans	.04	.21
All brands (aggregated)		.47"	.16		.20	.60**

‘Number of units consumed each month. [b]1 = very unlikely; 9 = very likely. ‘Volume of usage in units.
“p <.05. “p < .01.

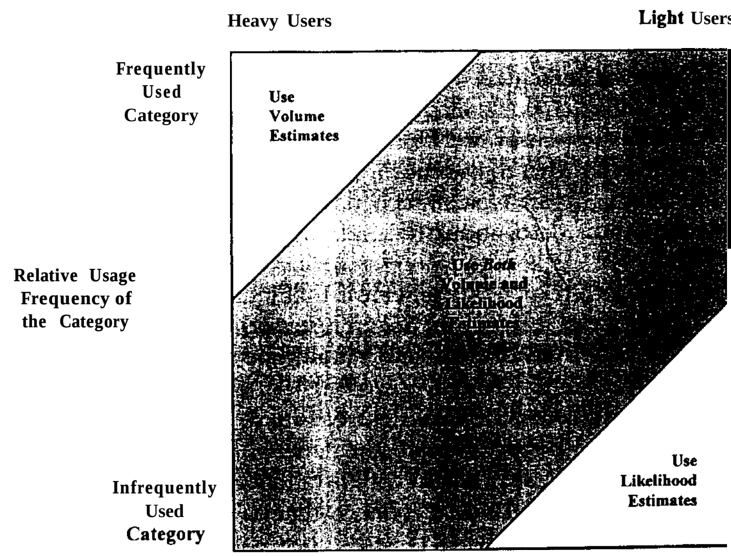

FIG. 20.2. Usage intention measures that correspond most closely to actual usage.

category, or when examining the light users of an infrequently consumed category. Indeed, as can be seen in Table 20.1, volume estimates provided relatively accurate estimates of usage for heavy users (r = .62) of soup, and likelihood estimates provided relatively accurate estimates of usage for light users (r = .49) of cranberry sauce.

The findings described here underscore the importance of usage-related measures over the simple measures of attitude that are typically collected during copy testing. Specifically, it is important to understand that volume estimates best approximate the actual usage of heavy users (or of frequently consumed brands) and that likelihood estimates are best used with light users (or with infrequently consumed brands). More specific diagnostic information, such as usage-related thoughts and feelings, can be obtained by examining the specific thoughts that consumers generate when viewing these ads.

ELICITING USAGE-RELATED COGNITIVE RESPONSES

Understanding the effectiveness of an ad is greatly aided by knowing a consumer's thoughts as he or she views that ad. These thoughts help us better estimate the impact these ads will have on attitudes and usage, and they also suggest ways in which the ads can be changed to be more effective. Unfortunately, the traditional procedure by which these thoughts are elicited may not yield valid or reliable findings (Russo, Johnson, & Stephens, 1989).

The initial research with cognitive responses (or verbal protocols) was pioneered by Greenwald (1968) and then introduced into advertising by Wright (1973). Their work indicated that cognitive responses can mirror the actual thoughts that occur to people as they evaluate a persuasive message. In these studies, cognitive responses are typically elicited with instructions such as, "Write down any thoughts that went through your mind while reading the ad." These written thoughts are typically coded as either counterarguments, support arguments, or source derogations (Smead, Wilcox, & Wilkes, 1981; Wright, 1973).

One problem with this coding scheme is that it does not specifically address thoughts that are usage related, nor does it necessarily encourage thoughts that could be of diagnostic value. Although a multitude of thoughts may be generated as one views an advertisement, only a small percentage of them will actually be communicated (Kidder, 1980; Wright & Rip, 1980). After subjects see an ad, they are typically asked to record their thoughts when viewing it. These instructions are general, and a portion of the random thoughts that result could be minimized if subjects had a better idea of what is expected of them (Ericsson & Simon, 1984). In short, when a researcher is focusing on usage-related thoughts, the conventional procedure of simply asking for general reactions may not be as useful as procedures or questions that are less ambiguous.

Two Options for Eliciting Usage-Related Responses

A person viewing an ad may generate many thoughts about cognitive responses, but not all of them will be communicated because of time constraints or cognitive capacity constraints (Ericsson & Simon, 1984). To uncover these thoughts about a particular target issue, researchers have used either preexposure elicitation exercises or directed postexposure instructions.

If a subject is given no instructions prior to their exposure to an ad, he or she is free to think of any issues that come to mind. Preexposure elicitation exercises (such as practice tests or examples) frame a subject's processing by suggesting a range of issues one might consider. One way this can be accomplished is by providing subjects with a hypothetical example or illustration of what another subject might have written when he or she viewed a related ad (Keller, 1987). A second way this is accomplished is by providing subjects with a practice trial that is followed with standardized feedback. The feedback, for instance, can be presented in the form of a prewritten checklist that instructs them to reread their responses to ensure that they are not simply writing down a replay of the ad (Batra, 1984). In short, providing subjects with preexposure elicitation exercises intensifies their processing of these target issues during exposure.

In contrast, giving directed postexposure instructions to subjects after they view an ad encourages them to cognitively edit their less relevant thoughts before writing them down. One way this can be accomplished is by instructing subjects to address specific issues of interest (Wright, 1980). For instance, a researcher can ask subjects how they feel about using the product, if they agree or disagree with the ad, or if it reminds them of any past experiences with the product (Wright & Rip, 1980).

Preexposure elicitation exercises and directed postexposure instructions both share risks of potential reactivity. The primary concern is that these procedures may "force" a subject to generate thoughts about a particular target issue that would have otherwise never occurred to them Nisbett & Wilson, 1977; Turner, 1986). As a result, such thoughts would be invalid, and would bias outcome measures such as beliefs, attitudes, or intentions. A direct way of testing for reactivity is by measuring the impact these different procedures have on critical outcome variables (Russo et al., 1989). Nonreactive procedures should have no influence on the ratings of outcome variable when compared to that of a control group. In other words, if these different procedures are nonreactive, there should be no difference in the ratings of A_{brand}, A_{ad}, and usage intentions among subjects who are given preexposure elicitation exercises, directed postexposure instructions, or neither.

Empirical Findings

The effectiveness of these two different elicitation methods was examined in a study that involved 74 adults who were recruited from parent–teacher associations, and who were given $6.00 for their effort (see Wansink, Ray, & Batra, 1994, for details). This study found that using either preexposure elicitation exercises or directed postexposure instructions increased the number of usage-related thoughts generated by subjects, but was not reactive. That is, there *were* no corresponding differences in the ratings of A_{brand}, A_{ad}, or usage intentions among subjects who were given preexposure elicitation exercises, directed postexposure instructions, or neither.

In a general sense, these results are consistent with what Batra (1984) found when examining different types of elicitation exercises for different dependent variables. Batra's results showed that general instructions can be as effective as directed instructions, but only when accompanied by some form of vivid preelicitation exercise or illustration, such as an example or a practice trial.

When should preexposure exercises be used in favor of directed postexposure instructions? It is important to realize that both options are not always available. Involving subjects in preexposure exercises is not always feasible, and it can be constrained by the experimental design or time limitations. Under such circumstances, directed postexposure instructions are the best alternative. When preexposure exercises can be used, Fig. 20.3 suggests that they might elicit more thoughts about a target issue. It is important to note that the combination of the two procedures, however, provides no greater sensitivity than does either by itself.

A General Method for Increasing Cognitive Response Sensitivity

Research dealing with cognitive responses is important because of the generalizations it makes regarding the cognitive response sensitivity (see also Wansink, Ray, & Baatra, 1994). In doing so, it suggests a general pretesting

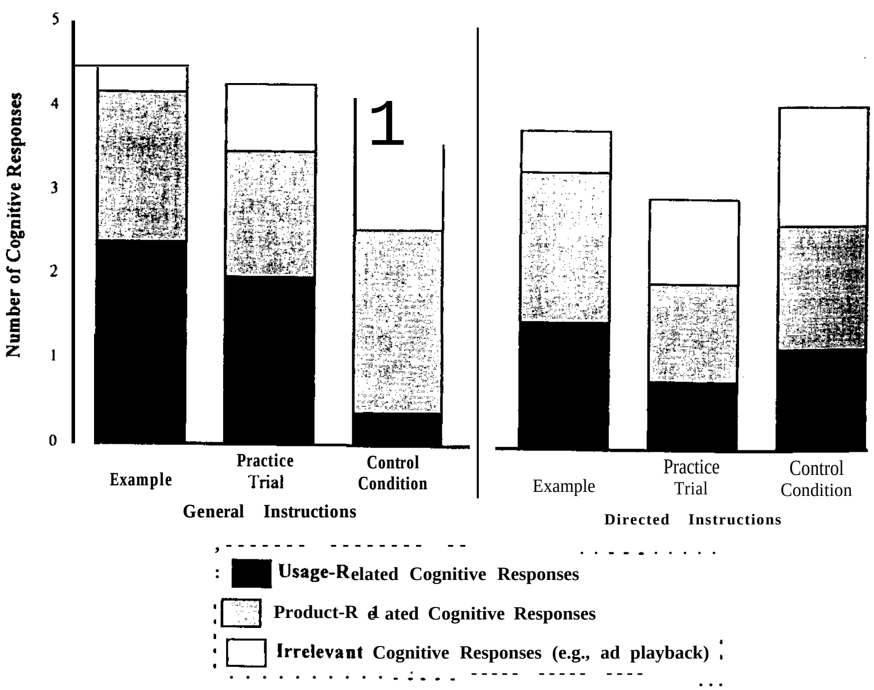

FIG. 20.3. Types of cognitive responses generated by various elicitation methodologies.

method that can help researchers determine what procedure will be most appropriate for eliciting usage-related cognitive responses. The general four-step method follows:

1. Select a number of preexposure elicitation exercises and directed postexposure instructions believed to provide the greatest level of sensitivity toward usage-related responses. Be certain to include a control condition.
2. Design the study by having the various procedures under examination represent between-subjects factors. Statistical power can be increased by having subjects respond to multiple ads. Care should be taken to ensure that subjects are from a comparable pool as those who will be involved in the future studies.
3. Include outcome variables of interest to confirm that the different procedures do not generate reactivity (such as A_{brand}, A_{ad}, and usage intentions).
4. Select the elicitation procedure that best achieves the objectives of the study without affecting outcome variables relative to the control condition. For instance, an objective may involve selecting the procedure that maximizes usage-related thoughts and minimizes unrelated thoughts such as ad playback.

This section emphasizes the importance of increasing the usage-related sensitivity of cognitive response elicitation procedures. Furthermore, it illustrates the steps a researcher must go through if he or she wishes to develop a stylized elicitation procedure for his or her own program of research. The study described here is taken from an ongoing program of research that suggests that either preexposure elicitation exercises (such as practice trials or prior exposure), or directed postexposure instructions can increase this sensitivity without appearing to be reactive.

SUMMARY

When the objective of an advertising campaign is to increase the usage frequency of a packaged good, copy testing measures must be sensitive to this objective. Because measuring actual usage can be prohibitive in terms of time and money, two more primary measures---cognitive responses and usage-intention measures—show promise because of their validity and diagnostic value.

These findings underscore the importance of taking usage-related measures in copy tests, instead of simply attitude measures of purchase intentions. Specifically, it is important to understand that volume estimates best approximate the actual usage of heavy users or frequently consumed brands, and that likelihood estimates are more accurate with light users or with infrequently consumed brands. Additional information about these ads can be obtained by examining the thoughts or cognitive responses that are generated by these ads.

These cognitive responses can best be examined using either preexposure elicitation exercises or directed postexposure instructions. Early evidence suggests that either procedure can effectively increase the number of thoughts a respondent communicates about a particular target issue, and that they may not be reactive.

ACKNOWLEDGMENTS

The first author is grateful to the Stanford Graduate School of Business Doctoral Program, and the University of Illinois for the generous financial support they have provided. He also gratefully acknowledges financial support received in conjunction with the Marketing Science Institute's Alden G. Clayton Doctoral Dissertation Proposal Competition award.

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