

# THE RELATION BETWEEN SCRIPT COMPLEXITY AND COMMERCIAL MEMORABILITY

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**ABSTRACT:** The relation between script complexity and commercial memorability was assessed using scripts and field data from a copytesting firm. The scripts were coded using the Flesch Reading Ease Formula. In Study 1 (field study), regression analyses revealed that complexity contributes independently (negatively) to advertising recall and recognition (controlling for executional variables). In Study 2, a laboratory experiment replicated the main effects of complexity on recall and recognition, but also showed that product category involvement moderated this effect. Complexity adversely affected a variety of memory measures, but only for those who were less involved with the product category. These findings provide further evidence that psycholinguistic factors should be taken into consideration when developing effective advertising.

In the competitive, increasingly cluttered environment of television advertising, copywriters and art directors strive to create commercials that are memorable. At the same time, copywriters typically write scripts that are not overly complex (i.e., that are understandable to the majority of target-market members), due to a tendency to believe that complexity might inhibit recall and recognition of the commercial or the brand. Indeed, Craik and Lockhart's (1972) framework for levels of processing suggests that memory suffers when deeper processing is inhibited. Both lack of ability and lack of motivation can cause disruptions in processing, leading to decreased memory for stimuli.

In an advertising context, research on language complexity has focused primarily on print advertising, and has often used copy that is more complex than would be typical of actual broadcast advertising (Bradley and Meeds 2002; Chebat et al. 2003; Lowrey 1998). Findings in print advertising contexts may not be directly relevant to broadcast contexts, however. Print advertising is a self-paced medium (at least for magazines and newspapers) in which consumers are free to take as long as they like to read the copy. Broadcast advertising, by contrast, is externally paced, where consumers have little control over the amount of time they are exposed to the message. The purpose of these studies was to determine whether complexity

of television scripts contributes to recall and recognition of commercials, and under what conditions.

## COMPLEXITY AND ADVERTISING

Many measures of text complexity have been proposed, and are often referred to as "readability" measures (for a review, see Metoyer-Duran 1993). These measures were formulated primarily to assist teachers in selecting appropriate educational materials for their students. Despite some controversy in the educational community over the years (Bogert 1985; Olson 1984), readability formulas are still applied worldwide to the analysis of a variety of texts, including marketing communications (Burton 1991; Cullingford et al. 1988; Davis and Kendrick 1989; Trenchard and Crissy 1952), Web-based information on psychiatric disorders (Kisely, Ong, and Takyar 2003), informed-consent forms (Paasche-Orlow, Taylor, and Brancati 2003), and medical information leaflets for various types of patients (Hill and Bird 2003; Rees, Ford, and Sheard 2003; Wong et al. 2003).

It is easy to understand why medical practitioners would be interested in assessing the readability of materials in the hopes that readers would understand the material being conveyed and respond to it appropriately. Even two of the marketing communications studies cited above concern health issues—specifically cigarette advertising and warning labels (Cullingford et al. 1988; Davis and Kendrick 1989). A third study, which investigates the readability of bank brochures (Burton 1991), is also primarily concerned with passing on somewhat complicated, yet important, information to consumers.

The majority of advertising, however, is not designed to convey complicated information (particularly when it comes to television commercials). Instead, the objective of a significant

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portion of television advertising is to increase brand awareness, and perhaps to inform consumers of new attributes as well. Furthermore, even when more complicated information is conveyed, it is typically done in the simplest terms possible. Common measures used to determine whether advertising has achieved such objectives are some forms of memory measures (different copytesting firms have their own proprietary forms of such measures).

### Linguistic Factors and Memory for Advertising

Laboratory studies have shown that complexity in print advertising does impact memory (Bradley and Meeds 2002; Chebat et al. 2003; Lowrey 1998). In general, these studies have shown that syntactic complexity can impair memory in a print context, but this relation is moderated by involvement. Other linguistic factors shown to affect memory include word distinctiveness (McArthur 1981), rhyme (Fallon, Groves, and Tehan 1999), initial plosives (Cortese 1998), puns and word plays (McQuarrie and Mick 1992), and semantic appositeness (Keller, Heckler, and Houston 1998), among others. In fact, Lowrey, Shrum, and Dubitsky (2003) demonstrated that many of these linguistic factors can lead to enhanced brand-name recall and recognition. While many of these factors operate at the level of a single word (i.e., brand names), both rhymes and puns/word plays can also operate at the sentence and text levels, and syntax, of course, can only operate at the sentence/textual level. The relation between these factors and complexity has not yet been thoroughly investigated, nor has the relation between linguistic complexity and memory for broadcast advertising.

### Script Complexity

One measure of text complexity that has been used frequently in previous research is the Flesch Reading Ease Formula (Flesch 1951). Originally developed to assess grade levels of written educational materials, it has since been shown to be an effective measure of "listenability" in a broadcast context as well (Allen 1952; Denbow 1975; Harwood 1955; Molstad 1955). Indeed, Flesch himself believed the formula to work even better for measuring levels of listening difficulty than for writing difficulty (1951, p. 43). In the 1960s, Fang developed the Easy Listening Formula (1966–1967), which has been shown to positively correlate almost perfectly ( $r = .96$ ) with the Flesch score (Foulger 1978). Since Fang's measure is not as accurate as the Flesch score (Foulger 1978), many researchers have simply relied on the Flesch score as the simplest and most accurate measure of text difficulty, whether applied to materials that are presented visually or aurally. Indeed, the above-cited studies find no difference in comprehension or memory as a function of modality.

Given these findings, the Flesch Reading Ease Formula (Flesch 1951) was used as a measurement of script complexity in the studies reported here. The formula involves the computation of the average number of syllables per 100 words in a passage of text (to indicate word difficulty), along with the average number of words per sentence (to indicate sentence difficulty). The two calculations are then combined to provide a single index of overall complexity.

The studies reported here attempt to address two questions: (1) How might the complexity of television scripts (as measured by the Flesch Reading Ease Formula) impact the recall or recognition of television commercials? and (2) Does motivation to process moderate the relation between complexity and memory?

## MEMORY

Advertising researchers tend to view recall as a more rigorous memory measure than recognition, but academic research suggests that the two measures can involve the same underlying process of information retrieval (Gillund and Shiffrin 1984). This is important, given the type of memory measures used in these studies (described below).

Craik and Lockhart's (1972) framework for levels of processing suggests that several factors can inhibit deep processing, including lack of ability or motivation to process information. Although researchers have shown that syntactic complexity does not always hinder the ability or motivation to process print advertisements (Bradley and Meeds 2002; Chebat et al. 2003; Lowrey 1998), the relation between complexity and the processing of broadcast advertising has yet to be thoroughly investigated. Given that most individuals are often not particularly motivated to watch television commercials, the externally paced nature of commercials might add to the processing constraints of individuals, rendering more complex scripts less memorable in the process. Thus, the following hypothesis is posited:

*H1: Commercial memorability will be negatively related to complexity, such that higher complexity scripts (lower readability) will be associated with lower levels of recall and/or recognition. That is, complexity will exert a main effect on memory measures.*

In addition to main effects, however, given that individuals differ with respect to their motivation to process, it is likely that motivation moderates the effect of complexity on memory. Because the scripts are not overly complex, they are likely more easily processed at high levels of motivation. Thus, it is only at low levels of motivation that complexity should exert strong effects. Specifically, higher motivation to process should reduce or eliminate the effect of complexity on memory. The following hypothesis addresses this possibility:

*H2: Complexity will be more strongly related to memory for consumers lower in product category involvement than for those higher in product category involvement. That is, complexity will also interact with involvement in affecting memory.*

Two studies were conducted to test these hypotheses. It was important to use scripts covering a realistic range of complexity. To that end, commercial scripts and the accompanying copytests from a major research company were obtained. The first hypothesis (main effect of complexity) was tested in the first study, using the field data, yielding a high level of external validity. A second study—this time a laboratory study—was conducted to test the second hypothesis and to replicate the first study in a more controlled setting, yielding a greater level of internal validity.

## STUDY 1

### Method

The commercial data set was obtained from ASI Market Research, Inc. (ASI), a leading communication research company. The data set included 88 television commercials for national brands in various packaged goods categories targeted toward females. Specifically, the 9 to 10 most recent commercials (at the time of the study) for each of ASI's top 9 clients (in terms of number of commercials tested) were included in the data set. The brands included product categories such as condiments, cold medicines, beverages, snack foods, and dairy products. The data set included commercials from a four-year testing span in the 1990s. The scripts for each commercial were submitted to a computerized Flesch calculator that computed the readability scores for each commercial.

The second phase of the study linked the Flesch analysis to the commercial copytesting data set, which was provided by ASI. This data set consists of consumer responses to field tests of the 88 commercials copytested by ASI. Each test consists of 180 to 200 consumer responses gathered from representative cities in the United States among female consumers between the ages of 18 and 65. The age distribution was quota-controlled to approximate the U.S. population. ASI's copytesting procedure consists of recruiting respondents by telephone and inviting them to preview new program material on an unused cable television channel in the respondents' own homes. Respondents are then contacted the following day to determine whether they viewed the program and, if so, they are interviewed for the study using a questionnaire that collects data on both the program and the commercials.

### *Dependent Variables*

The primary dependent variables include a modified recall measure and a recognition measure. The modified recall mea-

sure is actually a combination of recall and recognition that is verified, as follows:

1. respondents who indicate they viewed the program (or program segments in which the test commercials were embedded) are included;
2. these respondents are asked whether they saw a commercial for the specific product category (e.g., salty snacks);
3. *if they respond Yes*, they are then asked to recall the brand name of the product featured in the commercial;
4. *if they respond No*, they are provided with the brand name and asked whether they saw a commercial for that specific brand;
5. finally, and most important, all respondents who accurately recall or recognize the brand are then asked what they remember about the commercial. Only the respondents who can accurately recall specific commercial elements are then included in the final recall score.

This last step is important because it removes those who simply guess correctly or make misattributions (which could be very common, given that the target brand is typically a well-known, national brand).

The second measure is a recognition measure for those respondents who are not included in the recall score. That is, respondents who are unable to recall the test commercial based on either the product or brand cues used in the recall measure are provided with a verbal description of the test execution. The interviewer describes in detail all elements of the test execution and then asks the respondent whether he or she remembers seeing that specific commercial. Recognition is then calculated as the percent of all respondents who claim to have seen the described commercial after receiving the description of the test execution.

Note that various levels of memory are included in these measures. The recall measure includes those who can recall the commercial given only a product category cue (stricter memory test) along with those who require a brand-name cue (moderate memory test). Although imperfect, it is a noteworthy measure in that it eliminates false positives by requiring respondents to provide actual commercial details to be included in the recall score (strictest memory test). The recognition measure more closely resembles standard recognition measures in that it includes those respondents who were only able to remember the commercial after being provided with a description of the commercial (more lenient memory test).

### *Independent Variable*

The independent variable for each commercial is the Flesch readability score. Flesch scores ranged from 35.30 (difficult)

to 100 (very easy), with a mean of 83.23 (easy). Thirty-five percent of the commercials were scored as very easy, 25% as easy, 20% as fairly easy, 10% as “plain English,” and 10% as fairly difficult to difficult (these categories are those set forth by Flesch 1951). No commercials in the data set were scored as very difficult.

### *Control Variables*

Because the design of this study is not experimental, it is important to attempt to account for other variables that may be associated with the dependent measures. In all ASI studies, a number of executional variables (e.g., presence of a voice-over; time to first brand ID, number of brand-name mentions) are measured. To determine candidates for control variables, correlations were computed for all of the variables ASI included in the commercial data set to see which, if any, contributed to the dependent measures. It is interesting to note that neither time to first brand ID nor number of brand-name mentions contributed to either memory variable, contrary to what might be expected (Baker, Honea, and Russell 2004). Perhaps this is due to little variability in these variables (that is, commercials generally mention the brand name quickly and often).

Six executional variables were significantly related to the recall measure: presence of a voice-over, presence of on-screen dialogue, presence of humor, presence of comparative claims, whether the commercial was in rough or finished form (higher recall for finished form), and whether the product was new (higher recall) or established (new referring to line extensions, established referring to previously existing product lines). These six variables were used as control variables for the recall measure.

For recognition, four of the same executional variables contributed: presence of a voice-over, presence of humor, rough versus finished form, and new versus established. In addition, there were relations between recognition and five other variables: sound competing with words, presence of consumer testimonials, number of testimonials, inclusion of contents/ingredients, and brand-name visualization. These nine variables were used as control variables for the recognition measure.

## **Results**

### *The Effect of Complexity on Recall*

To determine whether the Flesch score contributed to commercial memorability, a multiple regression analysis was performed to test for the main effect while simultaneously controlling for the six executional/brand variables described above. These six variables were entered as a block, followed by the entry of the Flesch score.

The results of this analysis are shown in the top portion of Table 1. As expected, when considered as a block, the con-

trols were a significant predictor of recall,  $F(6, 90) = 10.64$ ,  $p < .001$ , Adjusted  $R^2 = .38$ . More important, in the second step of the regression, when the Flesch readability score was included, it was also a significant and positive predictor of recall,  $\beta = .20$ ,  $F(7, 89) = 10.29$ ,  $p < .001$ ,  $\Delta R^2 = .03$ .

### *The Effect of Complexity on Recognition*

A multiple regression analysis was also performed to test for a main effect of Flesch readability on recognition while simultaneously controlling for the nine executional/brand variables that showed relations with recognition. These nine variables were entered as a block, followed by the entry of the Flesch score.

The results of this analysis are shown in the bottom portion of Table 1. As with the previous analysis, when considered as a block, the controls were a significant predictor of recognition,  $F(9, 78) = 8.89$ ,  $p < .001$ , Adjusted  $R^2 = .45$ . Also, as expected, in the second step of the regression, the Flesch readability score was again a significant and positive predictor of recognition,  $\beta = .22$ ,  $F(10, 77) = 9.17$ ,  $p < .001$ ,  $\Delta R^2 = .04$ .

Taken together, these results are supportive of H1: Complexity negatively affected both recall and recognition. These findings suggest that the complexity of the scripts does have an effect on memory for the commercials. It is unclear from this study, however, whether the effect holds in all situations or for all people. It is possible, for example, that these main effects may be moderated by the extent to which people are involved with the message. Greater involvement may induce sufficient elaboration to overcome relatively small differences in complexity. In other words, the effects of complexity on ability to process may be partially offset by motivation to process. Study 2 was conducted to investigate these possibilities.

## **STUDY 2**

### **Method**

The same commercial scripts from Study 1 were analyzed to determine a specific brand for which both an easy script (Flesch = 85.6) and a more difficult script (Flesch = 35.3) were available. The resulting brand was a well-known pasta sauce. For the more difficult script, the brand name was mentioned three times, and was the fifth word encountered. For the easier script, the brand name was mentioned two times, and was the seventh word encountered. Despite the inability to control specifically for the number of brand-name mentions and time to first brand ID (Baker, Honea, and Russell 2004), it should be noted that it is the more difficult script that has the advantage on both variables (more mentions, quicker mention), resulting in a manipulation that should make obtaining results in the expected direction more difficult.

**TABLE I**  
**Contribution of Complexity and Control Variables to Memory Measures in Study I**

<i>Recall</i>	
Voice-over	.15*
On-screen dialogue	.13
Humor	.17*
Comparative claims	.33***
Rough versus finished	.16*
New versus established	-.28***
<i>Total adjusted R<sup>2</sup> for controls</i>	.38***
Flesch readability	.20**
<i>Change in R<sup>2</sup></i>	.03***
<i>Recognition</i>	
Voice-over	.17*
Humor	.23**
Rough versus finished	.18
New versus established	-.23***
Sound competing with words	-.18**
Presence of testimonials	-.13
Number of testimonials	-.16*
Contents/ingredients	-.14
Brand-name visualization	-.21**
<i>Total adjusted R<sup>2</sup></i>	.45***
Flesch readability	.22**
<i>Change in R<sup>2</sup></i>	.04***

*Note:* Numbers represent  $\beta$ s (standardized slope coefficients).

\*  $p < .10$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .

Each script was embedded in a booklet that contained additional scripts (also used in Study 1). Given that self-paced presentation of material such as reading print ads is, at times, a less difficult task for adults than externally paced presentation of material such as watching and listening to television commercials (Young 1936), the methodology used in Study 2 was designed as a more conservative test of the complexity differences observed in Study 1.

A total of 81 students received extra credit in an introductory class for participating in the study. Booklets containing five television commercial scripts (with either the easy or difficult pasta sauce script) were randomly distributed to the participants. The pasta sauce script was the third script in the booklet. The first page of the ad booklet informed participants that they would be reading a series of scripts for television commercials for existing brands. Participants were allowed to read through the booklet at their own pace, but no interaction between participants was allowed.

After reading through the ad booklet, participants moved on to a distraction task that was unrelated to this study. This was done to more closely mimic the procedure from Study 1 by ensuring that the script information was cleared from short-term memory. The task consisted of reading a cover

sheet describing a separate study and completing a variety of unrelated scales. This task took approximately 10 minutes to complete, a sufficient amount of time to clear short-term memory (McQuarrie and Mick 2003).

After finishing the distraction task, participants were asked a variety of memory measures (designed to closely approximate those used in Study 1). First, they were asked if they recalled reading a script for a pasta sauce (product category recall). If yes, they were asked what brand of pasta sauce it was (brand-name recall). If no, they were asked if they read a script for the specific brand of pasta sauce (brand-name recognition). Finally, all respondents were then asked to list specific elements of the script they read.

Following these four memory measures, participants were provided the verbatim text of each script and were asked if they had read that specific script (as a manipulation check). They were then asked to indicate how important pasta sauce was to them (product category involvement) on a nine-point scale (1 = not at all important; 9 = very important) to assess product category involvement. Finally, participants indicated whether they were native English speakers (and, if not, for how long they had been speaking English), and indicated their sex (60% female; 40% male) and age (they ranged from their

**TABLE 2**  
**Main Effects of Complexity on Memory Measures in Study 2**

	Low-complexity script	High-complexity script	Effect size
Product category recall	2.00	1.87*	.07
Brand-name recall	1.90	1.50**	.18
Brand-name recognition	2.00	1.90*	.05
Script elements recalled	2.59	1.43**	.23

Note: For all measures, higher numbers indicate a higher level of recall.

\*  $p < .05$ .

\*\*  $p < .01$ .

twenties through their forties). Only the product category involvement measure impacted the results to be reported; the other measures are not discussed further. At the conclusion of the study, participants were debriefed.

## Results

As with Study 1, complex ad scripts were expected to be associated with lower levels of memory for ad details. However, this relation was expected to be moderated by level of involvement: Effects of complexity on memory were expected to be greater for low-involvement participants than for high-involvement participants.

### *Main Effects of Complexity*

Hypothesis 1 stated that higher-complexity scripts (low readability) would be associated with lower levels of memory, and this relation was found in Study 1. To test this relation in Study 2, a  $\chi^2$  analysis was conducted for the three categorical dependent variables (two recall measures and recognition), and an analysis of variance was conducted for the continuous variable (number of script elements recalled).

The results of these analyses can be found in Table 2. As expected, for all four dependent variables, level of complexity affected memory. Participants exposed to the complex script had lower product category recall ( $\chi^2 = 5.61, p < .05$ ), lower brand-name recall ( $\chi^2 = 17.48, p < .001$ ), lower brand-name recognition ( $\chi^2 = 4.43, p < .05$ ), and lower recall of script elements,  $F(1, 79) = 24.00, p < .001$ .

Although the effect sizes are relatively small, it is interesting to note that the largest effect sizes were observed for the strictest memory measures (number of script elements recalled and brand-name recall). The more lenient memory measures (product category recall and brand-name recognition), while significant, have much smaller effect sizes, which makes sense given the subtle manipulation. That is, it is not surprising that the majority of study participants had little difficulty recalling that they had seen a script for pasta sauce, or recognizing

the brand name once provided, given that they only read five scripts (but the errors for both measures came mainly from low-involvement participants, as described below). The more compelling results are that both brand-name recall and the number of script elements recalled were very significantly affected by the complexity manipulation.

However, the main effect of script complexity on the four dependent variables was also expected to be qualified by a complexity  $\times$  involvement interaction. Regression analyses were conducted to test for such an interaction.

### *Interactions Between Complexity and Product Category Involvement*

Complexity was expected to be more strongly related to memory for participants with lower product category involvement than for those with higher product category involvement. Results from regression analyses confirm this prediction for three of the four dependent variables (see Table 3).

Product category involvement yielded significant interactions with complexity for product category recall,  $F(1, 80) = 5.33, p < .05$ ; for brand-name recall,  $F(1, 81) = 10.61, p < .01$ ; and for number of commercial elements recalled,  $F(1, 77) = 13.51, p < .001$ . In all cases, participants low in product category involvement exhibited greater difficulty when exposed to the complex script than those high in product category involvement. These results suggest that complexity of the script inhibited memory, but only for participants low in product category involvement, leading to lower recall and fewer commercial elements recalled. When product category involvement was high, the motivation to process information reduced the effects of script complexity.

## DISCUSSION

The purpose of these studies was to investigate whether complexity affects the memorability of television commercials, above and beyond other factors (Study 1) and whether motivation may moderate this relation (Study 2). The results

**TABLE 3**  
**Results for Product Category Involvement × Complexity Interaction in Study 2**

	Low-complexity script	High-complexity script
<i>Product category recall*</i>		
Low involvement	0%	20%
High involvement	0%	5%
<i>Brand-name recall**</i>		
Low involvement	6%	52%
High involvement	4%	37%
<i>Script elements recalled***</i>		
Low involvement	1.84	1.05
High involvement	2.27	3.13

*Notes:* For the first two measures, the percentage of incorrect responses is reported. For the third measure, the mean number of elements recalled is reported.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

suggest that complexity, at least as measured by the Flesch Reading Ease Formula, negatively affects both recall and recognition of commercials, but is moderated by product category involvement. These results are important for a number of reasons. First, it is worth noting that readability contributes significantly to commercial memory measures in Study 1, even though 80% of the scripts were rated as fairly easy to very easy. Only 10% of the scripts were rated at any level of difficulty. This makes sense, given that copywriters typically strive to write advertising copy that is understandable to the majority of their target-market members. Given this constraint (i.e., a ceiling effect of sorts), however, the more complex a script is, the less likely it is that important elements of the ad will be recalled or recognized. Adding to this the results from Study 2 provides an even more conservative test of this main effect.

Second, the contributions of readability to memory measures of television commercials were obtained in Study 1 when controlling for a variety of executional and brand variables that also impact recall and recognition. That is, readability contributes above and beyond other variables' contributions. This suggests that complexity should be included along with the various factors that copywriters typically consider when writing commercials. This is not to say that sophisticated copy should be "dumbed down"—there are a variety of reasons why copy should not be written at the simplest level possible. Depending on the type of product and the education level of the primary target market, however, lower levels of complexity may enhance commercial memorability. Note also that the effect size for complexity was comparable in size to the executional variables that also impacted the memory measures.

Third, the Study 2 results replicate and extend those of Study 1, despite major differences in procedure. Study 1 was

a field test that used actual television commercials to which respondents were exposed in their own homes. Presentation of the commercials was externally paced (which added to processing difficulties). Furthermore, memory measures were obtained the day after exposure (which contributed to memory erosion, at least for the recall measure). Study 2 was a laboratory experiment that used commercial scripts from Study 1. However, the exposure was self-paced (in print, rather than broadcast, potentially enhancing processing ability), and the memory measures were obtained within the same hour after a 10-minute distraction task.

That script complexity in this setting still exerted an influence on participants' ability to recall the product category, as well as on their ability to recall or recognize the correct brand name and to recall specific script elements, is important. Note that the test scripts in Study 2 ranged from "easier" to "harder" on the Flesch scale (from 35 to 86, although the scale ranges from 0 to 100), providing a conservative test of differences. This is important because the majority of advertising (both in print and in broadcast) is written within a fairly easy range of readability. Thus, Study 2's replication of the results from Study 1 was achieved using a different sample (more educated), a different procedure (self-paced), and a different data collection time frame (same day). The main effects of complexity still hold, however. In addition, at least three important measures (two recall measures and the number of script elements recalled) are moderated by product category involvement.

This is the first study to focus specifically on the effects of copy complexity in a television context. The strong main effects contradict some of the findings from studies investigating complexity in a print advertising context (Bradley and Meeds 2002; Chebat et al. 2003; Lowrey 1998) that found

moderate levels of syntactic complexity to be beneficial, at least for participants reporting higher levels of involvement. Again, given the self-paced nature of print advertising, it is not surprising that these previous studies may have yielded such results. Yet what is particularly interesting in the studies reported here is that regardless of modality (broadcast commercials in the field test of Study 1 versus reading commercial scripts in the lab test of Study 2), complexity still affected a variety of memory measures. These results were moderated by involvement, however, as in the print advertising studies cited above, adding further evidence that the effects of complexity can depend on other factors.

As with any study, there are limitations in the studies reported here. In Study 1, it was not possible to investigate the moderation of complexity by motivational factors such as product category involvement. It would have been useful to demonstrate the same interaction obtained in Study 2 with the field study data. In Study 2, the participants were college students at one university, rather than a nationally representative sample as in Study 1. However, these particular participants ranged in age from their twenties to their forties, providing a more representative age range than the more traditional college student sample of those age 18 to 21.

In conclusion, the results of both of these studies combined indicate that the complexity of a television script may be one factor that should be considered when attempting to promote brand-name recall or recognition, in conjunction with other considerations. Certainly, copywriters should not be constrained to write the easiest script possible. There are a variety of factors that enhance the memorability of commercials. However, given the difficulty that advertisers often have in obtaining high levels of recall and recognition for their television advertising, having an additional tool in the arsenal of potential memory enhancers should be helpful.

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