THE VALUE OF RELEVANCY IN ADVERTISEMENT ILLUSTRATIONS¹

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If relevancy be defined as the portrayal (in the illustration of the advertisement) of the ultimate usefulness of the article advertised, how closely should relevancy be adhered to in the average non-trade, non-professional magazine? This paper contains the data obtained in an effort to answer scientifically this question.

Objectively this question is of importance because it bears upon the construction of advertisements to the end that they may be brought to a high standard of efficiency (which means that they are economical in terms of money expended and money received resultant from an original outlay), and it is of importance therefore to the advertiser, the publisher, and the reader. Subjectively this matter bears upon the average amount of subject-matter retained out of the advertising aggregate seen by the reader of these so-called popular magazines.

Psychologically it bears relation to the number of steps of progressive thinking that the average reader will make, or to the duration of the effort that he will make, to connect an article as shown in a magazine advertisement with himself; or, in other words, relevancy in illustrations is closely related to the pulling power of an advertisement.

In making these tests the main dependence for material was placed upon two copies of the *Saturday Evening Post*,—one of the issue of December 2, 1916 and the other of the issue of March 24, 1917. The bindings of these magazines were cut, and full-page advertisements selected from other issues were inserted in their proper page places, that is, the selected advertisement was inserted after page 64 of the test magazine if it was numbered 65 in the magazine from which it was taken. In this way no cue to the insertion of any pages was given to the subjects. It is needless to say that the inserted advertisements were chosen because they were clearly relevant or irrelevant, as the case may be. The pages of the new magazines were then fastened together with heavy spring-clips.

¹ From the Psychological Laboratory, University of Kansas

The advertisements with relevant illustrations that were chosen as test advertisements showed the article that they represented in actual use by some one evidently of the same habits as the majority of the people who would see the advertisement; for example, the young man in the Pullman car drying his hands on a Scottissue towel, or the Black Cat stockings that looked to be sound and durable in spite of the hard usage given them by the healthy youngsters on their roller skates. The other kind may be illustrated by such examples as the Gold Medal Flour advertisement showing a clown balancing upon his nose a rectangular object that proved, after some study, to be a baking pan, and beneath it the words 'A Well Balanced Baking,' or the Encyclopedia Britannica advertisement showing the setting sun surmounted by the words "after 7:30 June 3rd" The text that followed this illustration showed eventually that after June 3rd the encyclopædia could be bought only for a sum that was a large increase over the price for which it was then selling The advertisements selected for one magazine were:

- 1 Society Brand Clothes, March 24, 1917.
- 2 Lyon's Tooth Powder, same issue.
- 3 Westinghouse Fans, July 8, 1916.
- 4 Scottissue Towels, May 27, 1916.
- 5 Goodyearite Packing, May 27, 1916
- 6 Certaineed Roofing, September 2, 1916
- 7 Wagner Products, June 17, 1916
- 8 Holeproof Hosiery, September 4, 1915.
- 9 Textan Shoe Soles (Goodrich Co), March 24, 1917.
- 10 Stewart Auto Products, January 29, 1916.
- 11 Neolin Shoe Soles (Goodyear), January 29, 1916
- 12 Kellogg's Corn Flakes, February 5, 1916.
- 13 Black Cat Hosiery, August 26, 1916
- 14 Stetson Hats, March 24, 1917.
- 15 Main Belting Co., June 24, 1916
- 16 Stewart Warning Signals, June 17, 1916
- 17 Florence Oil Stoves, April 22, 1916.
- 18 Goodyear Rubber Products, January 29, 1916.
- 19 Encyclopædia Brit. (Sears, Roebuck & Co.), June 3, 1916.
- 20 Ralston Wheat Foods, March 24, 1917.
- 21 Hammermill Bond Paper Co., March 24, 1917
- 22 Maytag Washer Co., March 24, 1917
- 23 Gold Medal Flour, March 24, 1917.
- 24 Gordon Seat Covers.
- 25 Pullman Company.
- 26 Beaverboard Wall Covering.

Students, mostly of the sophomore class, of the University of Kansas were used as subjects; they were members of the elementary psychology laboratory classes, but were unacquainted with the purpose of the experiment. The Pleasant Hour Club—a group of farm women—was also used for the sake of studying the correlation between their interests and those of the students in order that the value of students as subjects for experiments in advertising might be estimated.

In addition, series of advertisements of Packer's Tar Soap, Fairy Soap, and Nujol were used upon various subjects, both in and out of University circles. They were asked to arrange these advertisements in the order of their preferability and attractiveness and then to state, as far as they were able to do so, their reasons for arranging them in a given order. The only requirement made in the selection of these people was that they be unversed in the problems of advertising. Their observations of the meanings of some of the irrelevant advertisements are given later. Their arrangements of the advertisements in the order of preferability coincided with the arrangement for relevancy to the extent that 60 per cent of the advertisements placed in the upper half according to their relevancy were also in the upper half according to their preferability. The exceptions were the 'human interest' pictures of the Fairy Soap, to which in an indirect way a certain amount of relevancy may be attached.

The following method was used in the laboratory: the magazine was given to the various members of the classes as they were found in the laboratory working in pairs. The instructions given to them were that they should have from five to seven minutes to look at the magazine as a whole, that they were not to read the stories, that they were not to talk over the magazine in the laboratory nor later outside of the laboratory, and that for the time being they were to give their whole attention to the magazine. It was thought that in this way the ordinary conditions under which magazines are read by the average reader could be most nearly duplicated. On the second day after the first review of the magazine, it was again given to them to look over as before. On the fifth day after the second review (the next current laboratory period) these students were assembled in the classroom and each given a paper upon which to record, in the first place, the names of all of the advertisements which they could remember. The directions given at this time were that there should be no talking nor assistance to each other, that the article advertised, as gum, together with the trade name, e.g., Spearmint, were to

be written whenever possible. (Spearmint Gum was not in the advertisements included in the magazines.) In the second place those cases were to be mentioned in which either the trade name, as Standard Oil Company, or the article advertised together with enough description of the advertisement could be given to make the identification of the advertisement possible. The more definite recollections given in the first place were treated separately from the less definite ones given in the second place. The recollections of the relevant and irrelevant advertisements were recorded in separate tables.

Practically the same plan was used with the members of the Pleasant Hour Club, except that they saw the magazine but once and wrote down immediately the advertisements remembered.

The results with Magazine 'A' from the seven sections of

TABLE I

Relevant Advertisements (Magazine A)	1st Class	2nd Class ²
Crisco	10	0
Elgin Watch	26	8
Simmon's Watch Chains	15	11 (a)
Velvet Tobacco	44	4
Welch's Grape Juice	17	5
Western Electric Co	9	4 (b)
Holeproof Hosiery	18	11
Average	20 0	6 1
Irrelevant Advertisements	1st Class	2nd Class
Brascolite	1	1 (c)
Cadillac	10	0
Encyclopedia Brit	7	2
Hoosier Kitchen Cabinet	5	1
Mam Belt Company	0	2
Manuola Player Company	1	0
Maytag Washer Company	0	0
Perfection Auto Heater	0	0
Stewart Speedometer Co	6	2
Southern California (Gen. Publicity)	10	11 (d)
U. S. Rubber Company	11	0
Vim Motor Company	21	0
Saturday Evening Post Adv	4	0 (e)
Average	5 8	1.7

² Examples of descriptions of advertisements which are counted in Class 2 because of sufficient definiteness are the following: (a) "A picture of Norma Talmadge and some other actor wearing wrist watch and watch chain;" (b) "Electric sewing machine with woman sewing;" (c) "Do patent laws protect"—a lighting system; (d) "See California," "railroad rates to California," "California—motorists paradise"; (e) "Arthur Brisbane, the highest paid editor in the United States."

students were combined, as there seemed to be no essential differences between them, and these are represented in Table I. The column headed "1st Class" gives the number of times that each advertisement was mentioned in the first place, and the column headed "2nd Class" shows how frequently each advertisement was mentioned in the second place. The corresponding results with Magazine B are shown in Table II.

TABLE II

Relevant Advertisements (Magazine B)	1st Class	2nd Class
Society Brand Clothes	7	3
Lyon's Tooth Powder	2	0
Westinghouse Fans	15	3
Scott's Tissue Towels	1	1
Holeproof Hosiery	9	2 ⁽³⁾
Kellogg's Corn Flakes	19	2
Black Cat Hosiery	5	2
Florence Oil Stoves	3	1
Ralston's Breakfast Food	8	2
Stetson Hats	3	0
Hammermill Bond Paper	4	0
Textan Shoe Soles	5	2
Average	6 6	1 5
Irrelevant Advertisements	1st Class	2nd Class
Gold Medal Flour	0	2
Certainteed Roofing	2	2
Goodyearite Packing Rubber	3	0
Wagner Elec. Manufg. Co	0	1
Stewart Auto Products Co	1	1
Neolin Shoe Soles Co	8	1
Main Belt Company	0	0
Stewart Warning Signals	2	1
Goodyear Rubber Products	4	4
Encyclopedia Brit	2	0 ⁽³⁾
Maytag Washer Company	6	2 ⁽³⁾
Average	2 5	1 2

TABLE III

Relevant Advertisements (Magazine A)	
1. Crisco	4
2. Elgin Watch	3
3. Simmon's Chains	0
4. Velvet Tobacco	4
5. Welch's Grape Juice	2
6. Western Elec. Sew Mach. Co	0
7. Holeproof Hosiery	1
Average	2 0

³ In these cases the advertisements in Magazine B are not the same as those shown in Magazine A.

TABLE III—*Continued*

Relevant Advertisements (Magazine B)

1. Society Brand Clothes	2
2. Lyon's Tooth Powder	6
3. Westinghouse Fans	8
4. Scottissue Towels	3
5. Holeproof Hosiery	3
6. Kellogg's Corn Flakes	6
7. Black Cat Hosiery	4
8. Florence Oil Stoves	4
9. Ralston Breakfast Food	4
10. Stetson Hats	2
11. Hammermill Bond Paper	0
12. Textan Shoe Soles	0
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Average	3 5

Irrelevant Advertisements (Magazine A)

1. Brascolte	0
2. Cadillac	0
3. Encyclopedia Brit	0
4. Hoosier Kitchen Cabinet	2
5. Main Belt Co	0
6. Manuola Player-piano	0
7. Maytag Washer Co	0
8. Perfection Auto Heater	0
10. Southern California (ad.)	0
11. U. S. Rubber Co	0
12. Vim Motor Company	2
13. Saturday Evening Post	1
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Average	0 5

Irrelevant Advertisements (Magazine B)

1. Certainteed Roofing	0
2. Goodyearite Packing Co	0
3. Stewart Auto Products	0
4. Neolin Shoe Soles	2
5. Main Belt Co	0
6. Stewart Warning Signals	0
7. Goodyear Rubber Co	0
8. Encyclopedia Brit	2
9. Maytag Washer Co	0
10. Gold Medal Flour	0
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Average	0 4

In the papers of the Pleasant Hour Club there were only recalls of the first class. The results are given in Table III.

By converting the actual frequencies of the preceding tables into percentages we obtain the results as presented in Table IV.

TABLE IV

Relevant	1st Class	2nd Class	Total
Magazine A with students	17	5 6	
Magazine B with students	9 8	2 9	
Magazine A with clubwomen	33	—	
Magazine B with clubwomen	58 2	—	
Total	118	8.5	126.5
Irrelevant	1st Class	2nd Class	Total
Magazine A with students	5 3	1	
Magazine B with students	3 6	1 9	
Magazine A with clubwomen	0 8	—	
Magazine B with clubwomen	0 6	—	
Total	10 3	2 9	13.2

These results seem to allow of no doubt as to the comparative value of relevancy in the magazine cuts as against

TABLE V

Relevant Advertisements	APPREHENSION TIMES	Average for 15 subjects
1. Society Brand Clothes		9 3 seconds
2. Lyon's Tooth Powder		10 6 "
3. Westinghouse Fans		10 5 "
4. Scottissue Towels		8 1 "
5. Holeproof Hosiery		5 7 "
6. Kellogg's Corn Flakes		6 8 "
7. Black Cat Hosiery		6 6 "
8. Stetson Hats		7 7 "
9. Florence Oil Stoves		8 8 "
10. Ralston Wheat Food		4 9 "
11. Hammermill Bond Paper		15 0 "
12. Textan Shoe Soles		11 6 "
13. Gordon Seat Covers		6 3 "
14. Pullman Company		8 5 "
15. Beaverboard		10 6 "
Average		8 73 "
Irrelevant Advertisements		
1. Certanteed Roofing		26 2 "
2. Goodyear Packing		22 3 "
3. Wagner Electric Co		34 2 "
4. Stewart Products (auto)		22 2 "
5. Neolin Shoe Soles		9 3 "
6. Main Belt Company		18.1 "
7. Stewart Warning Signals		15 5 "
8. Goodyear Rubber Products		27 0 "
9. Encyclopedia Brit		19 9 "
10. Maytag Washer		16 5 "
11. Gold Medal Flour		22 1 "
Average		21.25 "

irrelevancy in the illustrations, since nearly ten times as many advertisements with relevant illustrations are recalled as those containing irrelevant illustrations.

As a check upon the validity of the selection of the advertisements as relevant or irrelevant, the advertisements of Magazine B containing both the relevant and irrelevant illustrations were used with a group of fifteen students who were unfamiliar with the tests, and the apprehension-times of these subjects were taken for each advertisement. Apprehension-time was considered the shortest time-interval necessary to elapse in order for the subject to name the article advertised or the company advertising and one point of advantage or superiority of the article mentioned in the text of the advertisement or easily inferable from it. Table V shows the results of this test.

It will be seen that in only one case was the apprehension-time of an irrelevant advertisement less than the longest apprehension-time of a relevant advertisement, and thus the selection of the advertisements as easy or difficult of understanding was verified in all cases except this one of the Neolin Shoe Soles. A partial explanation of the short time of this advertisement may be the fact that it came after the advertisement of Textan shoe soles more often than not and thus attention directed to composition soles was carried over from the latter to the former advertisement.

Taking up some of the minor phases of the experiment we may consider the position of the selected advertisements within the magazines, the relative frequency of the advertisements, the intensity of the advertisements used, and the occurrence of advertisements by the same firm in both magazines.

In the matter of favorable and unfavorable positions, one of the advertisements was placed immediately preceding the reading matter . . . presumably the best position in the magazine . . . and another was on the back cover. Both were within the median percentiles of number of recalls. The other advertisements were scattered through the advertising sections and varied in number of recall apparently without regard to their positions in the sections.

As regards frequency of appearance of the advertisements, the more common advertisements were not used in our tests. So far as is known to the writer none of the selected advertisements appeared in the magazines commonly read by students during the week of the experiment or the week preceding it, except that a few of the test advertisements were selected from the original issue of the magazine used. The advertisements selected were as nearly equal in frequency as

possible. It is believed now, however, that one reason for the high number of recalls received by the Velvet tobacco advertisement is its relatively greater frequency of appearance, and the credit it gains from the advertising of similar products, such as Prince Albert and Tuxedo.

The intensities of the contrasts of the cuts were as nearly the same as it seemed possible to choose them, with the exception of the irrelevant advertisement of the Vim Motor Company in Magazine A. This advertisement was recalled 22 times out of a total of 76, or almost one-third of all the cases. It is needless to say that the intensity of this advertisement seemed to be greater than that of the other advertisements. As none of these were favored to a similar degree, it would seem that their intensities were nearly equal.

In the matter of placing two advertisements of the same firm in both magazines, there was no notable increase in the number of recalls of the second advertisement over the first. This is significant because it leads to the conclusion that no matter how frequently an advertisement is inserted, if it has little attention value, no benefit will be gained from the second or third insertion if it is not noticed in the first.

In regard to the subjects used, students were used because they were available in the greatest numbers and were as good subjects as could be obtained. The women of the Pleasant Hour Club were used because it has been found that the women do more than half of the family buying, and the articles advertised in the *Saturday Evening Post* and other popular magazines are of the sort where the influence of women would be keenly felt.

In listing the apprehension-times it was evident from the first that students turned much more readily to the advertisements whose general subject matter was in some degree familiar to them, thus evidencing the inertia of attention that advertisements must overcome.

Among the advertisements mentioned by the students were some not found in the magazines. Phoenix Hosiery was mentioned six times because it was mistaken for the Hole-proof advertisement. Old Dutch Cleanser was mentioned presumably because its advertisements are nearly always in the *Saturday Evening Post*. Ivory Soap was mentioned three times for probably the same reason. Big Ben clocks, Prince Albert tobacco, Royal Tailoring Company, and Overland cars were likewise mentioned by mistake, as they were not found in the test magazines: this is perhaps due to the constant advertising of these concerns.

To summarize our results: it was found that advertisements containing relevant illustrations were remembered nearly ten times as often as advertisements with irrelevant cuts. In the case of the former kind, the name of the firm or of the article advertised together with one point of the latter's superiority was apprehended from two to three times as quickly as in the case of the irrelevant illustrations. The employment of university students as subjects in psychological tests on advertising is justified, since no significant difference was found between them and a class of women who represent the purchasing public. Other well-known facts of the psychology of advertising, such as the influence of the size of advertisements, of the frequency of their appearance, of the intensity contrast of their illustrations, of the surrounding reading-matter, and the like, were confirmed by our results.