Papers

Age-related differences in advertising: Recall and persuasion

Received (in revised form): 1st June, 2004

Diane M. Phillips

is an associate professor of marketing at Saint Joseph's University, Philadelphia, USA. Her primary research interests are in the area of consumer psychology. In particular, she has published work on consumer satisfaction, mental simulations and social networks.

John L. Stanton

is a professor of food marketing at Saint Joseph's University, Philadelphia, USA and conducts research on marketing and management strategy. He has published several articles and books on the topic.

Abstract The purpose of this study is to investigate the extent to which age-related differences in recall and persuasion may affect perceptions of advertising. Younger consumers are more likely to recall information presented in an advertisement, but are less likely to be persuaded by that information. Conversely, mature consumers are much less likely to recall information in an advertisement, but are more likely to be persuaded by the information. Thus, at a macro level, the recall–persuasion link does not seem to hold when young and mature consumers are examined. At a more micro level, however, distinct executional elements are identified that have a particularly strong impact on both recall and persuasion for young consumers and for mature consumers.

FOCUSING ON AGE-RELATED DIFFERENCES

There are very distinct memory and information processing differences between young and mature consumers.¹ For the purposes of this paper, a critical question is to what extent these cognitive differences may be manifested in an advertising context and further, to what extent these differences may help or hinder the recall–persuasion link. In developing a better understanding of these differences, the authors hope to provide suggestions to advertisers that would help them optimise recall and persuasion for young and for mature consumers. Thus, the objective of this study is to clarify the extent to which age-related differences in memory and

information processing may impact the recall–persuasion link.

This study represents an important contribution to current understanding of the effects of age-related differences in memory and processing on recall and persuasion. There are many other studies that have examined the effects of various advertising variables, such as length of the advert,^{2,3} humour,^{4,5} as well as other executional elements.^{6–10} The authors, however, are not aware of any other study that has used age-related memory and processing differences to better demarcate when the recall–persuasion link may or may not hold. Importantly, this study was conducted using data obtained from a broad diversity of actual consumers and

Diane M. Phillips
The Haub School of
Business,
Saint Joseph's University,
Philadelphia, PA 19131,
USA.

Tel: +1 610 660 3232;
Fax: +1 610 660 1997;
e-mail: dphillip@sju.edu

was analysed using a set of methods and procedures currently being used by industry professionals. Therefore, the conclusions drawn should be beneficial to advertising professionals in their attempts to reach young and mature consumers.

The young consumer

The young adult market (anyone between the ages of 18 and 35) is extremely large and lucrative. In the USA alone, there are approximately 68.5 million people in this age bracket.¹¹ Consumers in this segment are trendsetters in that they are willing to try new and different products. This group is approaching a time in which they will be (or are) spending a lot of money on new homes, household products, cars and baby products. Increasingly, these consumers are highly educated and tech-savvy. These consumers prefer not to follow the crowd and instead prefer to make purchase decisions on their own. Further, young consumers generally are highly sceptical of advertising and other promotional tactics. Despite their cynicism, they want to be told the truth.¹² Since these consumers see themselves as individualists capable of making their own decisions, they are particularly resentful of marketing tactics directed at them. An advertising campaign by Subaru failed, in part, some experts believe, because the campaign itself tried too hard to be hip and cool with its target audience of young people. These experts have argued that the failure may be partially attributable to the resentment that some young people have at being the target of an advertising appeal.¹³ A more detailed examination of specific advertising elements may help in developing a better understanding of what works and does not work with this group.

The mature consumer

The mature consumer is becoming increasingly critical to businesses throughout the world today. In many developed countries, mature consumers are making their presence felt. For example, there are approximately 34.9 million Americans over the age of 65 today.¹⁴⁻¹⁹ They head over 18 million households in the USA and by 2010, one in seven Americans will be 65 or older.²⁰ This segment is expected to grow quite considerably in the near future. In the next few years, the mature market will grow by 62 per cent, compared to a growth rate of 19 per cent for the rest of the US population.²¹ By 2010, there could be as many as 39.4 million mature Americans.²²

Compared to any other time in US history, the mature segment is better educated, healthier and more active.²³ Further, these more mature consumers have a higher disposable income than ever before. In fact, the per capita discretionary income is higher for mature Americans than for any other age group; they control about 50 per cent of America's total discretionary income²⁴ and 77 per cent of America's financial assets.²⁵ On an annual basis, the mature segment spends approximately \$60bn in the USA.²⁶ In addition, with more leisure time on their hands than their younger counterparts, mature consumers are in a position to use their time and spend their money in very different ways than ever before. An examination of the executional elements that differentially influence the mature market's perceptions of advertising could help in better reaching them.

CONCEPTUAL DEVELOPMENT

In order to understand fully the age-related differences in how young consumers and mature consumers

perceive advertising, it is first necessary to understand differences in how consumers remember information in an advertisement. Next, it is necessary to develop a better understanding of how consumers process that information. Together, memory and processing differences will help better understand differences in persuasion.

Memory

When compared to their younger counterparts, mature consumers seem to have more difficulty remembering information. In one meta-analysis of this topic,²⁷ it was found that older people often fail to encode data semantically, fail to use visual imagery, fail to use organisational strategies and fail to use efficient retrieval strategies. In one study of advertising effectiveness, older viewers demonstrated lower levels of recall and recognition than their younger counterparts.²⁸ This effect was generally more pronounced when there was a lot of clutter in the advertising environment.^{29,30} Perhaps because of these and other memory differences, mature consumers have been found to be more susceptible to misleading advertising.^{31–33}

One study attempted to explore this issue further and found preliminary evidence to suggest that mature consumers seem to have a more difficult time at the stage where they initially encode the information in memory.³⁴ Because mature consumers do not seem to have very efficient encoding strategies that would place a given piece of data in a location with other related data, the information is not efficiently encoded and it is very likely lost,²⁵ making it almost impossible to retrieve. Because of this, memory researchers suggest that recall, rather than recognition, is the most accurate means by which to assess

the extent to which a given piece of information was encoded in memory.³⁶

Since recall seems to be a better measure of the extent to which information is encoded,³⁷ recall is also used in this investigation. Younger consumers should have higher levels of recall for advertising elements and mature consumers should have lower levels of recall for advertising elements. Specifically,

H1: the relative proportion of executional elements recalled by young consumers will be greater than the relative proportion of executional elements recalled by mature consumers.

On a more specific level, little research has been done on which specific elements seem to contribute to these global effects on recall. It is, however, expected that there will be certain executional elements that will contribute more to these macrolevel effects than other executional elements. One report found, for example, that mature consumers respond particularly well to advertisements that show an actor with which they can easily identify.³⁸ This report found that fully one-third of mature consumers said that they deliberately did not purchase a product because the mature actors in the advertisement were portrayed in a negative light.³⁹

To reach mature consumers, some experts suggest that adverts use simple language, bright pictures and movement/action⁴⁰ while others suggest that adverts depict a direct benefit that consumers can integrate into their pre-existing value structures.⁴¹ Although these are only a few examples of executional elements in a vast assortment of elements that are potentially available to the advertiser, the authors expect to

find that some executional elements will resonate with younger consumers while other executional elements will resonate with mature consumers. Since so little research has been done in this area thus far, they can not confidently predict which elements will be more or less likely to be recalled by each age group. Thus, a formal hypothesis addressing this issue will not be provided. The results of the data analysis should help answer this question.

Processing

In terms of processing information, research has found that there are distinct differences in how young and mature consumers use and manipulate information. In general, mature consumers have greater difficulties with greater quantities of information, remember information better with visual aids, and benefit when using specific instructions on how to remember and process information.⁴² Mature consumers do seem to do better at information processing when given specific training⁴³ and, interestingly, when they process information at their optimal time of day (morning).⁴⁴

In an advertising context, consumers engage in a series of processes in which they are recalling information, processing it and then being persuaded by it. Consequently, age-related differences in recall (the first step) and processing (the second step) may lead to situations in which recall may not lead to persuasion (the final step). Because of this sequential process, the inputs to information processing as well as the processing itself are believed to be critical to the extent to which an individual will be persuaded by a given advertising message.

The existing literature does offer some guidance as to these processing differences. First, because younger

consumers are able to encode greater quantities of information,⁴⁵ they should therefore have a greater amount of information to use in processing. Secondly, younger consumers are likely to process information very differently than mature consumers. Young consumers have been described as tech-savvy, sceptical and highly critical of marketing strategies that are directed at them.^{46,47} Even by early adolescence, there is a high level of scepticism about advertising.⁴⁸ Thus, it is predicted that although young consumers will probably recall greater amounts of information, these highly cynical individuals will be less likely to be persuaded by that information.

Mature consumers will probably proceed through the recall, processing and persuasion sequence in a very different manner. Again, the existing literature offers some guidance on what kinds of processing take place. First, mature consumers are likely to encode less of the information that is presented in an advertisement,⁴⁹ so at the start of the process they have fewer inputs to use in processing. Secondly, mature consumers are likely to use different processing strategies⁵⁰ which, when taken as a whole, suggest that they rely less on careful, deliberate processing of information⁵¹ and more on schema-based⁵² and values-based⁵³ information processing. Because they do not critically and sceptically evaluate the claims in an advertising message, they may be more likely to be persuaded by that message. Therefore, it is predicted that in an advertising context, mature consumers will be more likely to be persuaded by a given advertising message. That is,

H2: the relative proportion of executional elements that are persuasive for mature consumers

will be greater than the relative proportion of executional elements that are persuasive for young consumers.

As with the prediction with the recall of particular advertising elements, the extent to which a given executional element will be persuasive will be affected by age-related differences as well. Again, the authors are not aware of any other study which has investigated the extent to which young consumers and mature consumers are differentially persuaded by specific executional elements. Therefore, they can not confidently predict which elements will be more or less likely to be persuasive for each age group.

METHOD

Data

The data used in this study are from a database of over 5,000 copy tests on over 1,300 different brands in over 150 different product categories. This is the largest, most complete database available on advertising results in the world.

The data used in this study use a branded variable called the ARS Persuasion Metric[®] which was created by RSC, The Quality Measurement Company.⁵⁴ This measure is designed to measure an advertisement's selling power. Past RSC research has demonstrated that The ARS Persuasion Metric is highly related to the ability of the advertisement to change purchase behaviour. One study⁵⁵ showed that brand share changes were highly related to the ARS Persuasion Metric[®] on pre/post (advertising) share measurements. In that study⁵⁶ it was reported that when television advertisements scored greater than seven on the ARS Persuasion Metric[®], they had a 97 per cent chance of moving the business ahead more than half

a share point. When the ARS Persuasion Metric[®] was less than two, there was only a 9 per cent chance of moving the business ahead by half a share point. Other research⁵⁷ using the same metric demonstrated that when the ARS Persuasion Metric[®] score was over 5.7 the brands had a substantial (10 per cent) increase in five year sales, but when the score was 4.5 or below, the increase was modest (between 0–10 per cent). When the ARS Persuasion Metric[®] was below 3.3, the brands had a decline in sales over the same period. It is important to note that The ARS Persuasion Metric score was obtained from actual advertising tests conducted on the actual target audience selected by the advertiser. This is extremely important in that many studies of advertising are done on convenience samples rather than the actual target audience for the advertisement as specified by the advertiser. While no quantitative system is a perfect measure, the data suggest that The ARS Persuasion Metric used in this and previous research is an acceptable predictor for sales and market performance.

Each of the 5,000+ commercials was coded as to whether each executional element was either present or absent in each advertisement. Each advertisement was categorised by multiple coders. The coders were highly trained and were a part of the RSC organisation. To be considered in this analysis an executional element had to be present in at least 200 advertisements, and the inter-judge reliability had to be at least 0.80. These judges were only used to determine whether the executional elements were present or absent. Table 1 lists the executional alternatives.

Sample

Actual consumers were invited to the testing laboratory located in the USA

Table 1: Definition of executional elements

Executional element	Definition:
Brand differentiating	If the advert has a message differentiating it from other brands
Number of brand name mentions	If the number of mentions in the advert exceeds 3, it is considered present
Time until category id.	If the category is mentioned before 4 seconds, it is considered present
Time until brand name id.	If the brand is mentioned before 5 seconds, it is considered present
Time until prod/pkg. shown	If the package is shown before 5 seconds, it is considered present
Time product on screen	If the total time that the product is on screen exceeds 6 seconds, it is considered present
Number on-screen characters	If the number of on-screen characters exceeds 3, it is considered present
Nutrition/health	If either a nutrition or health claim is mentioned, it is considered present
Convenience in use	If the advert described the convenience/benefit of the product, it is considered present
New product, new/improved features	If the advert announced that some aspect of the product was new or improved, it is considered present
Product double branded	If both the company and brand are mentioned, it is considered present (eg P&G's Tide)
Setting related to product use	If the setting relates to the use of the product, it is considered present (eg food in the kitchen)
Substantive supers	If there are a significant number of supers (more than one sentence), it is considered present
Cute/adorable	If in the opinion of the raters, the advert sought to be cute, it is considered present (eg pictures, music, or theme)
Humorous	If in the opinion of the raters, the advert sought to be funny, it is considered present
Indirect comparison	If a comparison is made between brands, but does not mention the other brand by name, it is considered present (eg 'the best')
Demonstration of product in use	If the product is shown in the advert being used, it is considered present
Product results demonstrated	If the results of the product are demonstrated, it is considered present (eg the floor is clean)
Principal character(s) male	If principal character is male, it is considered present
Actor playing ordinary person	If principal character is playing an ordinary person, it is considered present
No principal character	If there is no principal character, it is considered present
Background cast	If there is a background cast in the ad, it is considered present
No particular neutral setting	If there is no particular setting to the ad, it is considered present (eg a background)
Child/infant/animal/animated	If the ad included children, animals, or animation, it is considered present

and after a brief introduction to the study, rated each of several advertisements for the consumer products company using the standard copy testing methods employed by RSC. Consumers were considered to be 'young' if they were between the ages of 18 and 35; they were considered to be 'mature' if they were over 65.

The issue of sample size is more complex than in most studies. The number of advertisements actually classified varied for each executional alternative and commercial length. The

number of cases was directly related to the extent to which advertisers used the various elements in their commercials. As a consequence, the number of consumers who viewed a given executional element varied from a high of 440 consumers for 'product results demonstrated' to a low of 255 consumers for 'actors playing ordinary people'. At the conclusion of the study, participants were debriefed and thanked for their participation. The resulting list of 24 elements represents the most commonly used executional elements (see Table 1).⁵⁸

Dependent measures

Recall and persuasion were the two dependent measures of advertising effectiveness. Since most advertising research firms have their own unique definitions of and calculations for recall and persuasion, providing the exact definition of and calculation for these measures would reveal important proprietary information. These are, however, the exact measurements that RSC provides its commercial clients when that client has advertisements that are tested. Further, the two measures are the standard measures used by the firm in its internal operations.

Recall: The recall measure assesses the extent to which consumers recalled the advert, where a higher score indicates that more consumers recalled it. The measure itself is referred to as 'related recall', indicating that the consumer must do more than simply recognise the advert by saying 'Yes, I remember it'. Instead, the consumer must prove that the specific commercial was recalled from memory.

Persuasion: In both samples, persuasion is the change in potential purchase behaviour after watching the advert. This ARS Persuasion Metric is akin to the behavioural intention measure that is used in many consumer research studies in that it measures the extent to which consumers intend to purchase the product. Again, higher persuasion scores indicate that the advertisement was more successful in encouraging consumers to form an intention to purchase the product.

In addition to macrolevel recall and persuasion scores, individual item recall and persuasion scores are also calculated for each executional element. These measures represent the average recall or persuasion score for the advert for which the element was present. Finally, the percentage change scores represent how

much the inclusion of the element in an advert either helped or hindered recall and persuasion.

ANALYSES AND RESULTS

Young consumers and mature consumers do indeed seem to be influenced differently by the various executional elements in advertisements. The following results report the overall macrolevel analyses that compare the responses for young and mature consumers. Then, at a more specific level, the responses for young consumers and for mature consumers are each analysed individually.

Macrolevel differences in recall and persuasion

The results of this series of analyses are quite illuminating in describing the differences in the extent to which young consumers and mature consumers are persuaded by advertising. These results also underscore the importance of the fact that knowing about these differences in perceptions will certainly aid advertisers in developing more effective communications strategies for these different demographic groups. At a macrolevel, one critical difference that these results show is that younger consumers are much more likely to be able to recall various executional elements (mean for young consumers = 3.27, mean for mature consumers = 1.89), but mature consumers are much more likely to be persuaded by these elements (mean for young consumers = 4.98, mean for mature consumers = 6.58). A test of significant differences⁶⁰ was used and the results are depicted in Table 2. The results indicate that macro-level recall for young consumers is indeed significantly greater than that for mature consumers

Table 2: Global differences in recall and persuasion (percentage above (below) mean)

	Young consumers %	Mature consumers %	p-value
Global recall	15.14	(33.45)	<0.0001
Global persuasion	(15.74)	11.34	<0.0001

($z = 25.22$, $p < 0.0001$). The first hypothesis is therefore confirmed. The results also indicate that macrolevel persuasion for mature consumers is far higher than for younger consumers ($z = -27.63$, $p < 0.0001$). The second hypothesis is also confirmed.

These findings indicate that young consumers may be better able to remember the specifics of an advert but are somewhat more sceptical and reluctant to be persuaded by these pieces of information. Mature consumers, by contrast, are not as likely to remember the various executional elements in an advert, but are much more likely to be persuaded by these elements.

Recall in young consumers

For each advert in which a particular element was present, average recall scores and percentage change scores were calculated (see Table 3). In general, the most striking result of this study is the wide variation in effectiveness for the various executional elements across different age groups. More specifically, the 18–35 age group demonstrated wide variations in how likely they were to recall particular executional elements. The two elements that were most likely to be recalled by this group were ‘Cute/adorable’ (mean = 4.20) and ‘child/infant/animal/animated’ (mean = 4.20). Not only were the absolute recall scores the highest of any other element, but these elements provided the highest percentage of increase in recall. That is, this group of consumers is 30 per cent more likely to

recall the advert when it depicts something cute and adorable and it is 33 per cent more likely to recall the advert when it depicts a child, infant, animal or something animated. This group of consumers also seems to have an easier time recalling adverts that ‘demonstrate the product in use’ (28 per cent increase in recall), that depict an ‘actor playing an ordinary person’ (25 per cent increase in recall) and that show ‘convenience in use’ (14 per cent increase in recall).

Consumers in this age group found other executional elements to be less appealing. In particular, this group was least likely to recall adverts that provided nutrition/health information (19 per cent decrease in recall), that had ‘no principal character’ (12 per cent decrease in recall) and that showed the ‘product on the screen’ for too much time (11 per cent decrease in recall).

Persuasion in young consumers

The results for persuasion for young consumers are far different than those for recall (see Table 4). These findings indicate that although consumers may be likely to recall a particular advert because of a given executional element, that executional element may not always result in similar increases in persuasion. Young consumers are most likely to be persuaded by those adverts which show ‘convenience in use’ (119 per cent increase in persuasion), introduce a ‘new product or new/improved features’ (105 per cent increase in persuasion) and provide ‘brand differentiating’ claims (99 per cent increase in persuasion).

Table 3: Average recall scores for young and mature consumers

Global recall Variable	Young consumers			Mature consumers			Test of significant difference
	3.27			1.89			
	Present	Absent	% Change	Present	Absent	% Change	p-value
Brand differentiating	3.41	3.14	9	1.96	1.82	8	n.s.
Number of brand name mentions	3.10	3.38	-8	1.87	1.89	-1	0.0001
Time until category id.	3.32	3.21	3	1.94	1.82	7	0.0256
Time until brand name id.	3.32	3.23	3	1.98	1.81	9	0.0048
Time until prod/pkg. shown	3.39	3.19	6	2.03	1.79	13	0.0082
Time product on screen	3.02	3.41	-11	1.84	1.91	-4	0.0020
Number of on-screen characters	3.15	3.38	-7	1.90	1.87	2	0.0001
Nutrition/health	2.75	3.40	-19	1.86	1.89	-2	0.0001
Convenience in use	3.69	3.25	14	1.95	1.88	4	0.0150
New product, new/improved features	3.41	3.17	8	1.85	1.91	-3	0.0001
Product double branded	3.16	3.29	-4	2.07	1.85	12	0.0001
Setting related to product use	3.35	3.16	6	1.93	1.83	5	n.s.
Substantive supers	3.25	3.34	-3	1.89	1.88	1	0.0054
Cute/adorable	4.20	3.22	30	2.50	1.86	34	n.s.
Humorous	3.57	3.24	10	1.97	1.88	5	0.1075
Indirect comparison	3.28	3.27	0	2.04	1.85	10	0.0001
Demonstration of product in use	3.51	2.74	28	2.02	1.60	26	n.s.
Product results demonstrated	3.46	3.18	9	1.99	1.84	8	n.s.
Principal character(s) male	3.28	3.27	0	2.06	1.83	13	0.0001
Actor playing ordinary person	4.07	3.26	25	4.38	1.86	135	0.1075
No principal character	3.03	3.43	-12	1.74	1.98	-12	n.s.
Background cast	3.26	3.27	0	1.95	1.84	6	0.0001
No particular/neutral setting	3.03	3.37	-10	1.87	1.89	-1	0.0001
Child/infant/animal/animated	4.20	3.16	33	2.10	1.86	13	0.0001

There are also several executional elements that are likely to decrease persuasion. Interestingly, two items that were very likely to increase recall, were also likely to decrease persuasion. When the advert depicted something cute and adorable, there was a 43 per cent decrease in persuasion and when the advert depicted a child, infant, animal, or something animated, there was a 38 per cent decrease in persuasion. Other elements that were found to decrease persuasion were 'nutrition/health claims' (39 per cent decrease), 'too much time in which the product is on the screen' (35 per cent decrease) and too quick a time in which the product/package is shown' (27 per cent decrease).

One implication for the recall and persuasion findings for young consumers is that adverts which are cute and adorable and which show children,

animals, etc will certainly attract a consumer's attention and will make it more likely for these consumers to store the adverts in memory. These consumers, however, are quite savvy as to the products they choose to buy and will not be persuaded by cute and adorable things like animals and children. Instead, young consumers need to be convinced that the product will actually do what it claims to do. These consumers will most likely be persuaded when they see that the product is convenient to use, that it is different from other brands and that it offers something new and worthy of their consideration.

Recall in mature consumers

Mature consumers tended to recall different executional elements than their younger counterparts (see Table 3 again).

Table 4: Average persuasion scores for young and mature consumers

Total Variable	Young consumers			Mature consumers			Test of significant difference
	4.98			6.58			
	Present	Absent	% Change	Present	Absent	% Change	p-value
Brand differentiating	6.73	3.39	99	8.05	5.23	54	0.0001
Number of brand name mentions	4.77	5.12	-7	6.47	6.64	-3	0.0239
Time until category id.	4.37	5.63	-22	5.92	7.26	-18	0.1446
Time until brand name id.	4.16	5.64	-26	5.76	7.22	-20	0.0655
Time until prod/pkg. shown	4.08	5.58	-27	5.48	7.30	-25	n.s.
Time product on screen	3.60	5.80	-38	6.04	6.89	-12	0.0001
Number of on-screen characters	5.46	4.53	21	7.17	6.00	20	n.s.
Nutrition/health	3.28	5.41	-39	4.99	6.97	-28	0.0212
Convenience in use	10.33	4.72	119	12.50	6.28	99	0.0001
New product, new/improved features	7.17	3.49	105	7.37	6.03	22	0.0001
Product double branded	7.10	4.59	55	8.42	6.23	35	0.0001
Setting related to product use	5.25	4.63	13	6.97	6.04	15	n.s.
Substantive supers	5.04	4.81	5	6.63	6.40	4	n.s.
Cute/adorable	2.91	5.09	-43	6.97	6.56	6	0.0001
Humorous	3.79	5.08	-25	4.25	6.77	-37	0.0808
Indirect comparison	6.22	4.67	33	9.06	5.93	53	0.0001
Demonstration of product in use	5.18	4.55	14	6.80	6.09	12	n.s.
Product results demonstrated	6.16	4.41	40	8.61	5.57	55	0.0014
Principal character(s) male	4.21	5.24	-20	5.99	6.77	-12	0.0174
Actor playing ordinary person	5.88	4.98	18	9.02	6.55	38	n.s.
No principal character	5.18	4.86	7	6.24	6.79	-8	0.0001
Background cast	5.13	4.89	3	6.30	6.76	-7	0.0001
No particular/neutral setting	5.07	4.95	2	6.42	6.64	-3	0.0001
Child/infant/animal/animated	3.24	5.19	-38	5.42	6.71	-19	0.0011

By far, the advertising element that was most effective in terms of recall with this group was 'actor playing an ordinary person' (mean = 4.38, 135 per cent increase in recall). Other elements that were likely to increase recall for the mature segment were 'cute/adorable' (34 per cent increase), 'product results demonstrated' (26 per cent increase), 'principal character(s) male' (13 per cent increase), 'child/infant/animal/animated' (13 per cent increase) and 'time until product/package is shown' (13 per cent increase).

There were very few executional elements that were detrimental to recall for this group. Advertisements which showed 'no principal character hurt' recall the most (12 per cent decrease in recall). Other elements which resulted in a few percentage points decrease were 'time product on screen' (4 per cent

decrease), new product or new/improved features (3 per cent decrease) and 'nutrition/health' (2 per cent decrease).

Persuasion in mature consumers

Mature consumers were persuaded by very different elements than those that they recalled (see Table 4 again). The most persuasive element for this group was 'convenience in use' (99 per cent increase in persuasion). This group was also positively affected by 'product results demonstrated' (55 per cent increase), 'brand differentiating' (54 per cent increase), 'indirect comparison' (53 per cent increase) and 'actor playing ordinary person' (38 per cent increase).

There were also several elements that were detrimental to persuasion. Mature consumers did not seem to respond favourably to humorous advertisements

(37 per cent decrease in persuasion), 'nutrition/health claims' (28 per cent decrease) or advertisements which had a very short time until the product/package was shown (25 per cent decrease).

A review of these findings indicates that mature consumers are somewhat more consistent in their recall and persuasion for specific executional elements. For example, when an advertisement depicts an 'actor playing an ordinary person', recall and persuasion are both high. Similarly, when the 'product results are demonstrated', recall and persuasion are both high. As with younger consumers, however, there are some inconsistencies between recall and persuasion. For example, 'cute/adorable' and 'child/infant/animal/animated' seem to help recall, but do not seem to have a similar positive impact on persuasion. Instead, mature consumers seem to be persuaded by advertisements which show an indirect comparison between products, a product that is convenient to use, a differentiation from other brands and an actual demonstration of the results.

Individual item similarities between the groups in recall and persuasion

It is interesting to note that young and mature consumers at times have very similar perceptions and at times have very different perceptions of some of the specific executional elements. In terms of the similarities between the two groups, young and mature consumers are attracted to advertisements that portray something cute and adorable and advertisements that have a child, infant, animal or something animated. Both groups encode these advertisements and then recall them when prompted to do so (see Table 3). Both groups, however, agree that advertisements with these images do not persuade them to want to purchase the product. Quite the contrary (see Table 4).

In fact, these elements actually make it less likely that the consumer will want to purchase the product. Thus, advertisers must be aware that although these 'warm and fuzzy' elements may increase recall, they are likely to decrease persuasion in both of these demographic groups.

Another way in which these two groups are similar is in the means by which they are likely to be persuaded by a given advertisement. Both groups are persuaded by advertisements that show 'convenience in use', 'brand differentiating' 'product double branded', and 'product results demonstrated'. These four elements influence both groups to want to purchase the product. These consumers need to be convinced that the product being advertised will help them in some way and that the product is different or better than what already exists in the marketplace. Further, in terms of their perceptions of individual executional elements, both groups are likely to recall advertisements that have an 'actor playing an ordinary person' and advertisements that 'demonstrate the product in use'. Apparently, consumers not only remember a product better when they hear about it and see it, they also are better able to remember those advertisements that show a normal person in a normal consumption situation.

These two groups are also similar in terms of what is not likely to influence them. Perhaps the most striking finding is that 'nutrition/health' claims are damaging to both recall and persuasion for both young and mature consumers. For both groups, 'nutrition/health' claims rank in the top five items that are least likely to be recalled and that are least likely to persuade customers to buy the product. Another element which was found to be ineffective in measures of recall was 'no principal character'. Consumers may need to be able to identify with someone, such as an 'actor playing an ordinary person',

for recall to be enhanced. The two groups similarly are not influenced by 'time product on screen', 'no particular/neutral setting' and 'number of brand name mentions'.

Individual item differences between the groups in recall and persuasion

Despite the similarities in recall and persuasion as described above, there are some important differences. One difference displayed by these two groups is that humour is quite detrimental to persuasion for mature consumers. In fact, when humour was present, it resulted in a 37 per cent decrease in persuasion for this group. Humour hurts persuasion for young consumers as well, but not nearly as much. Another difference between the two groups is that 'new product, new/improved features' is highly effective in persuading young consumers, but is much less influential in persuading mature consumers. Mature consumers seem less impressed with the 'new and improved' message.

There are certain executional elements that exert a statistically significant greater impact on recall than others. In order to test for significant differences between these two age groups on the effectiveness in recall and persuasion for each executional element, a test for significant differences⁶¹ was again used. The biggest differences in how a given executional element affects recall for young consumers vs mature consumers are: 'new product/new improved features' ($z = 9.5054, p < 0.0001$), 'nutrition/health' ($z = -6.3701, p < 0.0001$), and 'number of on-screen characters' ($z = -6.2223, p < 0.0001$). Of the 24 executional elements that were examined, 16 demonstrated a significantly different effect on young consumers than on mature consumers (see Table 3 again). It is therefore concluded that young

consumers and mature consumers are likely to recall very different pieces of information in an advertisement.

Similarly, there are certain executional elements that exert more of an impact on persuasion on one group than the other. Of the 24 elements under investigation, 13 demonstrated a significantly different effect on young consumers than on mature consumers. In addition, the magnitude of these effects is much stronger than that for recall. The biggest differences in how a given executional element affects persuasion for young consumers vs mature consumers are: 'convenience in use' ($z = 35.8023, p < 0.0001$), 'new product/new improved features' ($z = 17.3702, p < 0.0001$), 'cute/adorable' ($z = -11.6089, p < 0.0001$), 'brand differentiating' ($z = 11.0613, p < 0.0001$), and 'no principal character' ($z = 10.7962, p < 0.0001$) (see Table 4 again). It is therefore concluded that young consumers and mature consumers are likely to be persuaded by different executional elements in an advertisement.

DISCUSSION

The results indicate that there may be important age-related memory and processing differences that affect the extent to which recall will have an effect on persuasion. In particular, young consumers are more likely to recall information in an advertisement, but are less likely to be persuaded. Conversely, the findings indicate that mature consumers are less likely to recall information in an advert, but are more likely to be persuaded.

This study also found that there are distinct similarities in how young and mature consumers perceive various executional elements of advertising. Several executional elements exerted a positive impact on both groups. When

simultaneously targeting an offering to young and mature consumers, advertisers can utilise these elements in developing adverts that will appeal to both groups. Further, advertisers should be cautious in using the elements that were found to be similarly detrimental to recall and/or persuasion in both groups. Importantly, the results also indicate that some executional elements were perceived very differently by both groups of consumers. Now that these differences have been identified, a very basic framework is available to advertising professionals to use when developing a message designed to target either a youthful audience or a mature audience.

As with any research, it is acknowledged that there are limitations associated with the findings. One limitation is that the findings of this study need to be interpreted with the knowledge that the assumption was made that the product categories are equally relevant to both age groups. Since a wide variety of product categories were used in the study, it was hoped that any age-related relevance for one category over another would be fairly evenly distributed across different consumers. It is possible, however, that since most consumer packaged good advertising is directed to younger consumers, younger consumers would find that more categories in general would be relevant to them and would, perhaps, be more likely to have higher recall scores. Another limitation to the study is that, although the effects of recall and persuasion were reported for each of the 24 executional elements, many of these items occur together in an advertisement and may thus be producing synergistic effects by their co-occurrence.

In sum, any researcher of consumer behaviour knows that the answer to almost any question about how a consumer might behave is, 'it depends'.

The same is true with the conclusions presented in this analysis. Age differences are but one means by which to analyse how consumers might recall and/or be persuaded by a given executional element. Further, the conclusions drawn here might not hold up in other environments. Variations in the viewing environment, in different social or cultural settings, in the type and duration of adverts that come immediately before or after the advert, and in the number of times a consumer views a particular advert can all have a big impact on the global and more specific similarities and differences reported here. Rather than issuing global edicts as to how an advertiser should or should not approach young and mature consumers, some guidance on what appears to be effective and ineffective for these two groups is offered. Hopefully, consumers and advertisers will both benefit from the conclusions here.

References

- 1 John, D. R. and Cole, C. A. (1986) 'Age differences in information processing: Understanding deficits in young and elderly consumers.' *Journal of Consumer Research*, Vol. 13, No. 3, pp. 297–315.
- 2 Singh, S. N. and Cole, C. A. (1993) 'The effects of length, content, and repetition on television', *Journal of Marketing Research*, Vol. 30 No. 1, pp. 91–104.
- 3 Stanton, J. L. and Burke, J. (1998) 'Comparative effectiveness of executional elements in TV advertising: 15- versus 30-second commercials', *Journal of Advertising Research*, November/December, pp. 7–14.
- 4 Unger, L. S. (1995) 'Observations: A cross-cultural study on the affect-based model of humor in advertising', *Journal of Advertising Research*, January/February, pp. 66–71.
- 5 Weinberger, M. G., Spotts, H., Campbell, L. and Parsons, A. (1995) 'The use and effect of humor in different advertising media', *Journal of Advertising Research*, May/June, pp. 44–56.
- 6 Blair, M. H. and Raback, M. J. (1999) 'Advertising wearin and wearout: Ten years later, more empirical evidence and successful practice', *Journal of Advertising Research*, Vol. 38, No. 5, pp. 7–18.
- 7 Batra, R., Lehmann, D. R., Burke, J. and Pae, J. (1995) 'When does advertising have an impact? A study of tracking data', *Journal of Advertising Research*, September/October, pp. 19–32.
- 8 Laskey, H. A., Fox, R. J. and Crask, M. R. (1994) 'Investigating the impact of executional style on television commercial effectiveness', *Journal of*

- Advertising Research*, November/December, pp. 9–16.
- 9 Neese, W. T. and Taylor, R. D. (1994) 'Verbal strategies for indirect comparative advertising', *Journal of Advertising Research*, March/April, pp. 56–69.
- 10 Shirley, D. (1999) 'From copy testing and diagnostics to process-driven improvements', *The Advertiser*, April/May.
- 11 US Census Bureau (2001) Population Estimates Program, Population Division, Washington, DC. 2nd January.
- 12 Schiff, K. G. (2000) 'Give it to us straight', *Newsweek*, Vol. 136, No. 3, p. 28.
- 13 Rice, F. (1995) 'Making generational marketing come of age', *Fortune*, 26th June, pp. 110–114.
- 14 65 years of age is an arbitrary cutoff for conducting such age-related investigations. Other criteria have been used such as psychological age, or how old a person feels (See Refs. 15, 16 and 17). Chronological age does, however, seem to be a better indicator in this investigation because of evidence which calls into question the validity of psychological age (See Ref. 18) as well as the more practical consideration of being able to make concrete recommendations to advertising managers.
- 15 Barak, B. and Schiffman, L. G. (1980) 'Cognitive age: A nonchronological age variable', *Advances in Consumer Research*, Vol. 8, pp. 602–606.
- 16 Cooper, P. D. (1984) 'Elderly segmentation: A factor analytic approach to psychographic segmentation', in Klein, D. M. and Smith, A. E. (eds) 'Marketing comes of age', Southern Marketing Association, New Orleans, pp. 28–31.
- 17 Greco, A. J. (1987) 'Linking dimensions of the elderly market to market planning', *Journal of Consumer Marketing*, Vol. 4, No. 2, pp. 47–54.
- 18 Henderson, K. V., Jr. (1996) 'The effect of subjective age on the cognitive processing of advertising', dissertation, Florida State University.
- 19 US Census Bureau (2001) *op. cit.*
- 20 Cole, C. A. and Castellano, N. N. (1996) 'Consumer behaviour', in Binnen, J. E. (ed.) 'Encyclopedia of gerontology', Academic Press (1), San Diego, pp. 329–339.
- 21 Lazer, W. and Shaw, E. H. (1987) 'How older Americans spend their money', *American Demographics*, July, pp. 12–15.
- 22 Edmondson, B. (1997a) 'A better chance for healthy old age', *Forecast*, June, p. 1.
- 23 Edmondson, B. (1997b) 'Off their rockers', *Marketing Tools*, October, p. 1.
- 24 Neiman, J. (1987) 'The elusive mature market', *Ad Week*, 6th April, p. 16.
- 25 Schewe, C. D. (1988) 'Marketing to our aging population: Responding to physiological changes', *Journal of Consumer Marketing*, Vol. 5 No. 3, pp. 61–73.
- 26 Cole and Castellano (1996) *op. cit.*
- 27 John and Cole (1986) *op. cit.*
- 28 Johnson, R. L. and Cobb-Walgren, C. J. (1994) 'Aging and the problem of television clutter', *Journal of Advertising Research*, Vol. 34, No. 4, pp. 54–62.
- 29 Ward, J. (1989) 'Marketers slow to catch age wave', *Advertising Age*, 22nd May, S1.
- 30 Johnson and Cobb-Walgren (1994) *op. cit.*
- 31 Gaeth, G. J. and Heath, T. B. (1987) 'The cognitive processing of misleading advertising in young and old adults: Assessment and training', *Journal of Consumer Research*, Vol. 14, No. 3, pp. 43–54.
- 32 Quinn, J. B. (1999) 'You're a winner! (Not)', *Newsweek*, 27th September, p. 49.
- 33 Rosenfeld, J. R. (1999) 'Publishers clearing house: Diabological scheming or unintended consequences?', *Direct Marketing*, Vol. 61, No. 12, pp. 26–29.
- 34 Cole, C. A. and Houston, M. J. (1987) 'Encoding and media effects on consumer learning deficiencies in the elderly', *Journal of Marketing Research*, Vol. 24, No. 1, pp. 55–63.
- 35 *Ibid.*
- 36 *Ibid.*
- 37 *Ibid.*
- 38 Beck, M. (1990) 'Going for the gold', *Newsweek*, 23rd April, p. 74.
- 39 *Ibid.*
- 40 Ward (1989) *op. cit.*
- 41 Wolfe, D. B. (1994) 'Targeting the mature adults', *American Demographics*, March, pp. 32–36.
- 42 John and Cole (1986) *op. cit.*
- 43 Gaeth and Heath (1987) *op. cit.*
- 44 Yoon, C. (1997) 'Age differences in consumers' processing strategies: An investigation of moderating influences', *Journal of Consumer Research*, Vol. 24, No. 3, pp. 329–342.
- 45 Cole and Houston (1987) *op. cit.*
- 46 Neuborne, E. (1999) 'Generation Y', *Business Week*, 15th February, pp. 81–88.
- 47 Schiff (2000) *op. cit.*
- 48 Boush, D. M. (2001) 'Mediating advertising effects', in Bryant, J. and Bryant, A. (eds) 'Television and the American family', (2nd edn), Lawrence Erlbaum Associates, Mahwah, NJ, pp. 397–412.
- 49 Cole and Houston (1987) *op. cit.*
- 50 John and Cole (1986) *op. cit.*
- 51 *Ibid.*
- 52 Yoon (1997) *op. cit.*
- 53 Wolfe (1994) *op. cit.*
- 54 The company RSC, The Quality Measurement Company, changed its name from ARS. However, the advertising trademarked measures are still in the name of ARS.
- 55 Shirley (1999) *op. cit.*
- 56 *Ibid.*
- 57 Blair and Raback (1999) *op. cit.*
- 58 The authors are aware of no other studies that have used the actual lists of executional elements that advertising agencies themselves use in their own analyses of advertisements. Although one study (see Ref. 59) does provide a list of executional elements, it does not attempt to differentiate the relative importance of these elements by age.
- 59 Stewart, D. W. and Furse, D. (1986) 'Effective television advertising', D.C. Heath and Company, Lexington, KY.
- 60 Parasuraman, A. (1991) 'Marketing research', Addison-Wesley, Reading, MA.
- 61 *Ibid.*